Modification Report
Incentivised Nomination Scheme
Modification Reference Number 0479

Version 4.0

This Modification Report is made pursuant to Rule 8.9 of the Modification Rules and follows the format required under Rule 8.9.3.

1. The Modification Proposal

Transco formulated this Proposal to seek to provide Users with the opportunity and incentive to provide additional information to Transco as to their intended end of day imbalance position. The ability to provide this additional information would be facilitated throughout the balancing period via the implementation of a new type of nomination, the "INS nomination". This new nomination would be used by Transco to better inform its balancing action decision making process, thus potentially improving the efficiency of any actions taken.

This Proposal also provides for the accuracy of this additional nomination to be assessed at four discrete, predefined, times during the balancing period for each gas day; 02:00 day ahead and 12:00, 18:00 and 22:00 on the gas day. It is proposed that, in the event that Transco takes a balancing action for the gas day, differences between the User's nominated and allocated imbalances, at these predefined times, will incur a charge. The imposition of this charge would generate a commercial incentive on Users to provide more accurate information throughout the balancing period and introduce an additional degree of cost targeting into the regime.

Transco initially advocated a charge that was based on the residual system balancing action costs for that gas day and the difference between the User's intended end of day nominated imbalance and its allocated imbalance relative to the performance of the community as a whole. However, in light of the Workstream debate, this revised Proposal advocates that the INS charge levied on each User at each predefined time t ($INSC_t$) be determined as follows:

$$INSC_t = PM_t \times SF_t \times INSCP,$$

where

i) PM_t is the User's Performance Measure at time t given by:

$$PM_t = Abs[(N_t - A) - INSTQ_t],$$

where N_t is the User's INS Nomination (its nominated intended end of day imbalance) at time t, A is the User's allocated imbalance, and $INSTQ_t$ is the INS Tolerance Quantity at time t.

This latter term, $INSTQ_t$, reduces the magnitude of the difference between a User's nominated and allocated imbalance to the extent that it had been increased by the change in the NDM forecast between that time and the end of the gas day.

In the event that the NDM Forecast Deviation Tolerance was not to continue in respect of the imbalance cash-out arrangements, as is currently proposed in Modification Proposal 0511, Transco sought respondents views as to whether application of the INS Tolerance Quantity would continue to be appropriate.

ii) SF_t is the INS Scaling Factor and was proposed to equal 0.25 at each predefined time.

iii) INSCP is the INS Charge Price given by:

if A>0, INSCP = SAP – SMP Sell,
if A<=0, INSCP = SMP Buy –SAP,

where A is the User's allocated imbalance.

It is proposed that the revenue from this Proposal forms part of Balancing Neutrality such that, after consideration of the neutrality smear payment, Users that provide relatively "good" information would receive a net reward, and those that provide "poor" information, a net charge.

2. Transco's Opinion

Since the introduction of the New Gas Trading Arrangements (NGTA), the operation of the gas balancing regime has changed considerably. Transco, Ofgem and other regime participants have acknowledged a number of concerns, some of which are described below. Transco maintains that these concerns need to be addressed through a process of incremental evolution of the regime.

Transco has confirmed at various Operational Forum meetings that both the level of information uncertainty and variation in flows on to, and off of, the system within day, have increased since the introduction of NGTA. This has led to difficulties for Transco in evaluating "efficient" balancing actions, which are exacerbated by the complex behavioural interactions inherent within the regime. Transco considers that balancing costs incurred due to such information uncertainty should be targeted at those Users that generated the costs, as opposed to being charged to all Users through the neutrality smearing process as would be the case under the current regime.

Transco has also reported an increase in within day NTS linepack movements since the introduction of NGTA. Such variations have arisen from an increased divergence between the rate at which gas is input to, and offtaken from, the NTS. Excessive differences between these rates may generate linepack depletion that could, in the absence of actions by Transco, jeopardise the safe and secure operation of the system.

Transco considers that the above concerns may, at least in part, have been exacerbated by the commercial freedom granted to Users under NGTA to change their imbalance position within day. Users, however, do have obligations to flow gas in line with their nominations according to the uniform flow rate principle. Transco concurs that the combination of these two factors means that the current actions by Users are entirely legitimate and indeed might be considered to be a consequence of generating greater within day trading opportunities.

Transco has stated that there is no simple single solution to resolve the issues highlighted above. Ofgem proposed in its February 2001 consultation paper, "Further Reform of the Gas Balancing Regime", that fundamental changes are required, such as the development of an "hourly balancing regime". Transco continues to have reservations regarding the balance of costs and benefits associated with such fundamental change, preferring, instead, to pursue an incremental approach to address perceived weaknesses within the current regime while retaining the current daily balancing period. In support of such an approach, and as a potential first step of an incremental reform programme, Transco raised Modification Proposal 0479 "Incentivised Nomination Scheme" (INS), which the Modification Panel at the July meeting referred to the Energy and Capacity Workstream for consideration.

Transco considers that the current information requirements set out in the Network Code do not afford Users with sufficient opportunity to provide Transco with the best possible information to inform its balancing decision making process. This restriction may create an artificial level of information uncertainty, which may impact the efficiency of Transco's balancing actions. Transco's view is that a new type of nomination is required to remove this barrier to information provision by providing the facility for Users to advise Transco throughout the balancing period of their intended end of day imbalance position. Transco considers that this Proposal provides this new type of nomination.

Transco recognises that a User's ability to accurately forecast its end of day imbalance during the balancing period may be affected by the accuracy of its prevailing aggregate NDM nomination. Transco considers that the Proposal to accommodate such forecast errors by applying the same principles that currently exist in Network Code for the NDM Forecast Deviation Tolerance in respect of the imbalance cash-out arrangements (Section F2 of Network Code) via the application of the INS Tolerance Quantity would provide sufficient relief in this area.

Transco considers that the proposed times at which a User's performance would be assessed are consistent with both the publication timescales of a User's NDM forecast and the key points at which Transco assesses the system balance in support of its role as residual system balancer.

With regard to the level of the INS Scaling Factors at each predefined time, Transco considers that the proposed equal values of 0.25 provides a pragmatic compromise between two opposing views expressed by the community that:-

i) the scaling factors should be weighted towards the earlier part of the balancing period to potentially improve the efficiency of Transco balancing actions; or
ii) the scaling factors should be weighted towards the latter part of the balancing period due to operational uncertainty over a User's end of day imbalance.

Transco recognises the views of many participants that an INS charge may not be required, and hence the INS charge price could be set to zero, on the basis that User's have Shipper Licence obligations to provide Transco with their best possible information. In addition, it was suggested that Transco could inform Ofgem of any User that was deemed to be providing "poor" imbalance nominations and, as such, may be in breach of its obligations. However, it is Transco's opinion that a non-zero charge price is essential in order to:-

- provide a commercial incentive on Users to ensure the accuracy of their intended end of day imbalance nomination;
- provide a degree of cost targeting into the regime for use of system flexibility and potential balancing actions that may arise as a result of the User changing its intended end of day imbalance position during the balancing period; and
- together with the application of the scaling factor for each predefined time, provide an incentive for Users to provide Transco with its best estimate of its end of day imbalance as early as possible.

Transco initially advocated a charge price that was based on the balancing action costs for that gas day with the intention that the scheme would:-

- ensure that charges were only levied upon Users when balancing costs had arisen, resulting in the INS charge being dynamic and related to the costs imposed on the system; and
- attribute more of the costs of balancing to those with relatively less accurate nominated imbalances than those with relatively better performance.

Transco recognised the concerns expressed in Workstream discussions that this methodology implies that a User's charge would be affected by the performance of others and, to an extent, Transco's balancing strategy for that gas day.

In response to extensive Workstream debate, Transco now considers that a charge price equal to the relevant SMP-SAP differential, depending on the direction of a User's allocated imbalance, meets, more than any other option debated by the Workstream, most of the following attributes that are generally considered to be desirable for such a charge:-

- transparent calculation methodology;
- easily obtainable;
- not unduly penal;
- not arbitrary;
- reflective of the costs incurred by Transco as a result of inaccurate end of day imbalance nominations and/or Users changing their balancing intentions throughout the gas day;

- provide an economic incentive on Users to provide accurate projections of their intended end of day imbalance; and
- should not outweigh current imbalance cash-out incentives that were designed to financially incentivise Users to balance.

In Transco's opinion, the combined effect of imbalance cash-out and INS is likely to change behaviours such that Users will be encouraged to enter the day with a lower level of end of day imbalance than typically currently observed, as a result of the imbalance cash-out incentive, and then to be fairly incentivised to remain at this position throughout the day. This in turn may promote more uniform deliveries onto the system and potentially reduce within day linepack variations.

Transco therefore considers that this Proposal would provide additional information to better inform its role as residual system balancer. The presence of the scheme will effectively redistribute monies to those providing accurate information at the expense of those providing less accurate information. The redistribution effects are likely to encourage Users to come into the day closer to a balanced position and, in aggregate, track demand changes. Transco therefore anticipates that the Proposal will better encourage input flows onto the system in line with the design assumptions of the NTS. If this happens the scheme may reduce Transco's current concerns about operation of the regime.

Transco recognizes that the scheme does not directly address within day NTS linepack variations, but notes that the behaviour implications of the Proposal may give rise to gas flows that reduce linepack variations. Transco also considers that the INS Nomination data will provide improved information to identify potential exploitation of the regime, given the ability to change gas flows during the balancing period.

3. Extent to which the proposed modification would better facilitate the relevant objectives

This Proposal provides Users with the opportunity, and incentive, to provide additional information to Transco as to their intended end of day imbalance position throughout the balancing period. If approved, this additional information would be used to better inform Transco's balancing action decision making process, and in turn might generate greater efficiency of these actions. This Proposal therefore better facilitates the relevant objective of "efficient and economic operation", as stated in Standard Condition 9 1(a).

Transco believes that the proposed INS charge will improve cost targeting to those Users that generated costs due to poor information provision, and will therefore better facilitate the relevant objective of "securing effective competition between relevant Users", as stated in Standard Condition 9 1(b).

4. The implications for Transco of implementing the Modification Proposal , including

a) implications for the operation of the System:

Additional information would be obtained to better inform Transco's balancing action decision making process, and in turn this would generate greater efficiency of these actions. This could provide for more stable and efficient operation of the system.

b) development and capital cost and operating cost implications:

Changes to Transco systems are required to facilitate the provision of the new type of nomination from each User, and to determine and invoice the INS charge. Definitive figures for the development and capital costs are not yet available. However, it is estimated that these costs are likely to be around £0.75m +/-30%.

Additional operating costs are anticipated to be minimal.

c) extent to which it is appropriate for Transco to recover the costs, and proposal for the most appropriate way for Transco to recover the costs:

Any additional System Operator costs incurred as a result of implementing this Proposal would be accounted for under the proposed internal cost incentive scheme, as set out in Ofgem's final proposals for the System Operator incentives.

d) analysis of the consequences (if any) this proposal would have on price regulation:

This proposal is not considered to have any consequences in respect of price regulation.

5. The consequence of implementing the Modification Proposal on the level of contractual risk to Transco under the Network Code as modified by the Modification Proposal

No such consequences are anticipated.

6. The development implications and other implications for computer systems of Transco and related computer systems of Users

The requirement to provide a new type of nomination and the implementation of a new charge is likely to precipitate a need to change the functionality of User's operational and financial systems.

7. The implications of implementing the Modification Proposal for Users

Transco considers the main implication would be that Users would be required to provide additional data to Transco.

8. The implications of implementing the Modification Proposal for Terminal Operators,Consumers, Connected System Operators, Suppliers, producers and, any Non-Network Code Party

Transco believes that there would be no direct effect on the above parties.

9. Consequences on the legislative and regulatory obligations and contractual relationships of Transco and each User and Non-Network Code Party of implementing the Modification Proposal

No changes to contractual relationships are anticipated.

10. Analysis of any advantages or disadvantages of implementation of the Modification Proposal

Advantages:

- Provides opportunity for Users to provide additional information to Transco regarding their intended end of day imbalance position.
- The additional information provided to Transco may result in more efficient residual balancing actions and, therefore, lower balancing costs.
- Improves the level of cost targeting within the regime.
- May better encourage aggregate gas input and offtake consistency, whilst at the same time encouraging within day trading.

Disadvantages:

- Increased administrative complexity.
- INS charge may only approximately reflect the costs incurred due to inaccurate end of day imbalance nominations or changing balancing intentions.

11. Summary of the Representations (to the extent that the import of those representations are not reflected elsewhere in the Modification Report)

Representations were received from the following seventeen parties:

Association of Electricity Producers	(AEP)
Agip (UK) Limited	(Agip)
Amerada Hess Gas Limited	(Amerada)
BG Gas Services Limited	(BG)
British Gas Trading	(BGT)
BP Gas Marketing Limited	(BP)
CONOCO (UK) Limited	(Conoco)
Dynegy UK Limited	(Dynegy)
Innogy	
London Electricity Group Plc	(LE)
Marathon Oil (UK) Limitied	(Marathon)
Powergen Gas Limited	(Powergen)
Scottish and Southern Energy Plc	(SSE)

Scottish Power	(SP)
Shell Gas Direct Limited	(SGD)
Statoil (UK) Limited	(STUK)
TXU Europe Energy Trading Limited	(TXU)

One representation was received after the consultation close-out timescales. Transco has been able to take this representation into account in compiling this report.

Six respondents supported the Proposal. This included BG which offered conditional support subject to the proposed level of the INS charge being reduced.

Two respondents did not express an opinion for or against the Proposal.

Nine respondents did not support the Proposal.

11.1 Transco concerns.

AEP sympathises with "*Transco's position regarding within day information uncertainty over the expected end of day imbalance position of the system*". It accepts that the cause of this problem is probably the development of the regime under NGTA, specifically "*the greater freedom this gives to shippers to trade within day*", and suggests that "*it may be appropriate to reconsider whether these developments have best served customers' interests*".

Agip notes that the mismatch between DFN and demand information, as reported by Transco, "*can make system balancing decisions extremely difficult*".

BG recognizes the "*difficult job that Transco faces in balancing their system post Mod 0305, effectively second guessing shipper reactions to market prices*". It considers the underlying problems to be twofold; the disparity between supply and demand as a result of shippers' ability to vary their imbalance through the day, and the disparity between supply information from different sources. It suggests that these problems "*manifest themselves in direct balancing costs and unfocused balancing neutrality charges*".

Innogy is "*sympathetic towards the intent of the proposal and recognises that Transco has demonstrated its concerns about information discrepancies between DFN/AT Link and actual flows and day ahead nominated imbalances*". It "*agrees that better information about intended gas flow changes and expected end of day imbalances may improve Transco's balancing decision making processes and avoid shippers and Transco duplicating balancing actions*". It is Innogy's opinion that the commercial flexibility and incentives to self-balance are key elements of NGTA and, "*although this flexibility may be*

viewed as a free option", Innogy does not believe that it creates "*significant inefficiencies in the current regime*".

Powergen recognises that, "*since the introduction of NGTA, some shippers' inability or unwillingness to nominate accurately has led to uncertainty which has led Transco to take inefficient balancing actions*."

SSE has "*sympathy with the rationale Transco has used to develop this proposal and acknowledges the concerns it has raised regarding the uncertainty it faces when considering whether to take system balancing actions*". STUK and Marathon acknowledge similar concerns.

SP expressed concern that the identified problems may not be as "*fundamental as some parts of the community assume*", but that "*this modification addresses at least part of the problem*".

SGD is "*not convinced that a significant problem has been properly identified*", and notes that although Transco states that it has outlined its concerns at Operational Forum meetings, "*it would have been helpful to repeat the analysis within the Energy/Capacity workstream*". SGD points out that, despite Transco's concerns, "*Transco does not appear to need to take a significant number of balancing actions, as evidenced, by the Winter Review 2000.*" SGD further adds that "*the uncertainty Transco faces does not appear to be any different than that faced by all shippers*".

Transco's response:

Transco has repeatedly expressed concerns regarding both the level of information uncertainty and the disparity between the various sources of information it receives to inform its balancing action decision making process. Specifically, this includes the disparity between:

- projected end of day supply and demand, particularly ahead of, and during the early part of the gas day;
- DFN/AT-Link supply nominations; and
- actual flows on to, and off of, the system within day.

Transco notes that these concerns are recognized, to various extents, by AEP, Agip, BG, Innogy, Powergen, SSE, SP, STUK and Marathon.

With regard to the views expressed by SGD, Transco accepts that it would have been possible to repeat the presentations of Transco's analysis provided at various Operational Forum meetings to the Energy/Capacity Workstream for the benefit of those that attended only the latter. However, Transco considers that it has provided the industry with evidence of divergence of input and offtake flow rates. This is consistent with information in Ofgem publications regarding reform of the gas balancing regime.

Transco does not agree with SGD's view that Transco and Users face similar uncertainties. Transco, in its role as residual system balancer, must ensure the physical balance of the system, and thus relies upon the accuracy of different sources of information than that required by Users to balance their individual portfolios.

Transco shares the view expressed by AEP that the greater freedom to trade within day introduced as part of NGTA may be a contributory factor to some of the current issues in the energy balancing regime. Transco believes that this is exacerbated by Users not being exposed to the costs that may be generated by their behaviours during the gas day, and opposes Innogy's view that this "*free option*" is a key element of the regime. Transco agrees with AEP that it may be appropriate to reconsider the merits of the within day commercial flexibility provided under NGTA and has suggested that this form part of the Terms of Reference for the Energy Balancing Review Proposal (0513).

11.2 Incremental approach versus "hourly balancing".

BG "*strongly*" opposes the implementation of shorter balancing periods as, in its opinion, this will "*reduce the robustness and efficiency of the Transco network in matching supply and demand, markedly increase information uncertainty and reduce market liquidity*".

Marathon "*shares Transco's concerns over the possible introduction of hourly balancing*", and agrees that "*it would be sensible to consider other options that are less draconian*", developed in an incremental manner, as alternatives to the "*big bang approach of hourly balancing*".

SGD shares Transco's reservations about Ofgem's proposals to introduce an hourly balancing regime, and suggests that "*an incremental approach may be preferable*".

Transco's response:

Transco agrees with BG, SGD and Marathon that an incremental approach should be investigated prior to more fundamental reform. Transco considers that this Proposal constitutes an incremental step, consistent with furthering the relevant objectives.

11.3 Interaction with new Proposals 0510-0513.

LE believes that "*it is difficult to assess how the INS proposal will work in practice*" as there has been little time to consider its interaction with Proposals 0510-0513 that have been raised subsequent to Workstream development of INS. AEP adds that consideration of the interactions should ensure that "*a balance is struck between complexity of the regime and increasing shipper's and Transco's operational costs*".

Marathon suggests "*that further research should be carried out to establish which combination of these Modification Proposals, if any, meets the desired objectives*".

STUK believes that "*issues relating to any development of the energy balancing regime would be more appropriately handled through the Energy Balancing Review, to allow proposals to be reviewed in the wider context and avoid piecemeal reform*". This view is also supported by Agip, BP, Conoco, SGD, SSE and STUK.

Agip suggests that it would seem more appropriate to await the report on Ofgem's consultation on energy balancing before proceeding with further regime modifications.

Transco's response:

Whilst Transco considers that a review of the Energy Balancing regime is appropriate, and has raised Review Proposal 0513 to facilitate this, Transco is of the opinion that incremental reforms to the regime, that further the relevant objectives, should be introduced in the short term. Transco expects that the Review Proposal will lead to suggested improvements, which, subject to the modification process, may result in solutions being implemented in the medium to long term. Transco, as a prudent operator, considers that it is not sufficient to wait in the interim period, but that step should be taken to address current concerns with operation of the regime as soon as possible.

11.4 Cost-benefit analysis.

Marathon would prefer to see "*evidence of the scale of costs incurred as a result of inefficient balancing actions*" before further evolution of the regime.

AEP comments that "*given low implementation costs*", the Proposal should be "*progressed in advance of other more costly options*".

As Amerada believes that it "*always provide Transco with accurate*" imbalance forecasts, it contends that the Proposal will have a limited operational/cost impact on its business.

BG expressed concern that the estimated system development costs are disproportional to the potential benefits of INS, and questioned whether "*this additional expenditure is a beneficial investment to the efficient operation of the regime*". SP also holds this view.

Agip believes that "*the proposal does not illustrate the financial benefits to be gained from implementing INS against anticipated costs of implementation and operation*" for the industry. BP shares this view and considers that "*it would be prudent to undertake further analysis to*

clearly establish whether these benefits would materialise prior to committing any expenditure".

Agip also expressed concern that implementation and operational "*costs incurred by Transco will be passed onto shippers*", further penalising Users that are not contributing to the system problems.

Dynegy contends that the Proposal is "*unduly complex in relation to the benefits that may accrue*".

Transco's response:

With regard to the comments expressed by Marathon, Transco has investigated methods to identify the proportion of balancing costs that arise as a result of information uncertainties and hence could be deemed "inefficient". However due to the complexities of the regime, Transco considers that isolation of the costs attributable to each potential driver is extremely subjective.

Transco recognises that, without experience of the regime under this Proposal, it is difficult to precisely quantify the benefits of implementation. However, Transco considers that the Proposal may reduce the level of uncertainty associated with significant nominated imbalances seen ahead, and during the early part, of the day. Transco considers that the provision of additional and appropriately incentivised information would be expected to improve the efficiency of Transco's balancing action decision making process. This may therefore reduce balancing costs, in the interests of Transco, Users and customers.

With regard to Agip's comment that implementation and operational costs would be passed on to Users, Transco would like to point out that, as stated in Section 4c of this report, any additional System Operator costs incurred would be accounted for under the internal cost incentive scheme as set out in Ofgem's final proposal for the System Operator incentives.

11.5 <u>Within day profiling.</u>

STUK "*do not believe that this proposal will solve problems of within day profiling*". Similar concerns were expressed by Agip and LE.

Transco's response:

Transco proposed INS as an important incremental step towards improving the current gas balancing regime. Whilst the Proposal does not directly address the issue of profiling, it is envisaged that it would yield an improvement in the accuracy of nomination information. Transco should therefore have greater confidence when taking actions, potentially avoiding costs that might be associated with wasteful actions. Furthermore, the Proposal is designed to attribute costs to

those Users changing their imbalance positions within day. Given potential exposure to costs, Transco considers that this may further discourage Users from entering the day significantly out of balance. This in turn may reduce one of the primary causes of within day NTS linepack variations.

Since concluding Workstream development of this Proposal, Transco has raised Modification Proposal 0512, "Introduction of a Within Day Entry Profiling Charge", that recognises these concerns and specifically seeks to address issues surrounding within day NTS linepack variations.

11.6 Proposed alternative solutions.

STUK believes that the "*provisions contained in the Shippers Licence should be sufficient*" to address the concerns highlighted by Transco in the Proposal. Agip also holds this view.

Powergen suggests that Transco should focus on monitoring discrepancies between physical flows and AT-Link nominations/DFNs, particularly where tolerances in Network Entry and Exit Agreements are breached. It proposes that "*persistent offenders*" could be "*tracked down*" and penalties imposed by the Regulator, "*as is being developed in the electricity industry with the significant incident report*". It adds that there should be a "*simple, cost-effective, solution to the problem within the offshore regime*", that ensures gas is delivered into the system at uniform flow rates.

Marathon suggests that the issue of cost targeting could be dealt with more selectively, and cites the example of applying "*a more restrictive balancing regime to those shippers most likely to influence the system by profiling ie. powerstations and other large end-users*".

STUK believes that "*Transco would derive more benefit from being made aware of the action the shipper is proposing to take to achieve a balanced position*", as opposed to the shippers intended end of day imbalance.

SGD suggests that "*if there is a major issue affecting safety of the NTS, Transco should hold discussions with the HSE to review its Safety Case*".

Dynegy contends that Transco should be able to "*build shipper profiles*", based on past balancing performance, to "*anticipate shipper activity within day*" as "*shippers entering the gas day away from imbalance will consistently get back to balance within day*".

Transco's response:

Transco considers that, under the current gas balancing arrangements, there are limited commercial obligations on Users to provide Transco with accurate nomination information ahead of, and during, the gas day; financial incentives currently consist of scheduling charges based on the accuracy of end of day nominations. Transco considers that the introduction of this Proposal would significantly strengthen commercial incentives on Users to provide accurate nominations of their intended end of day imbalance throughout the balancing period.

Transco has repeatedly expressed the view that the current information requirements set out in the Network Code do not afford Users with sufficient opportunity to provide Transco with the best possible information to inform its balancing decision making process. This Proposal will provide the facility for Users to advise Transco of their intended end of day imbalance, which might not always be possible under the current nomination arrangements.

In addition to information improvements, Transco considers that this Proposal may provide an additional degree of cost targeting into the regime for use of system flexibility and potential balancing actions that may arise as a result of the User changing its intended end of day imbalance position close to or during the balancing period.

Transco notes the view expressed by STUK and Agip that Users have an obligation under the shippers' licence to use reasonable endeavours to secure prompt and accurate information is provided to Transco. In addition, Transco notes Powergen's proposal of reporting "*persistent offenders*" to Ofgem. In support of these views, Transco considers that the Proposal may assist, if required, in the identification of "*persistent offenders*", as referred to by Powergen.

With regard to the comments made by SGD regarding system safety, Transco would like to emphasise that Transco is confident that it can safely manage the system. However Transco remains concerned about the commercial efficiency of the regime. Transco considers that commercial incentives should be implemented with a view to improving the energy balancing regime consistent with furthering the relevant objectives. Transco liaises regularly with the HSE and will seek to revise its safety case whenever necessary and prudent to do so.

Transco agrees with Powergen's suggestion that there should be a solution to ensure gas is delivered into the system at a uniform rate. Transco considers that this Proposal better facilitates that objective.

As Dynegy and Powergen suggest, Transco has investigated development of models to "*anticipate shipper activity within day*". However, as the data used to develop such an approach often exhibits a high degree of uncertainty, it is not possible to ensure a sufficiently reliable prediction that will improve the balancing action decision making process. Transco considers that this Proposal may enable the

development of such approaches, as long as the proposed INS Charge Price provides a sufficient commercial incentive to encourage provision of accurate INS Nominations.

11.7 Deterioration in the accuracy of other sources of information.

Powergen contends that "*this proposal may perversely lead to Transco receiving less information than they do currently*" as "*many shippers will hold off from putting a nomination onto the system, or put it on in stages until they have balanced up*".

STUK suggests that the "*provision of an additional set of data may create more confusion if it is different from the current imbalance indicated by shippers on AT-Link*". Agip also holds a similar view.

Transco's response:

During Workstream development of this Proposal, it was concluded that Users should provide to Transco a new type of nomination, the "INS Nomination", representing a User's intended end of day imbalance, as it would leave the current nomination regime intact and separate, and more easily facilitate the provision of the additional information in a timely and administratively simple way. The INS Nomination also allows Users the opportunity to inform Transco of their balancing intentions, which, in Transco's opinion, is not always possible through existing types of nominations. Transco, therefore, does not agree with Powergen that the accuracy of existing nominations would necessarily deteriorate.

This Proposal incentivises Users to advise Transco of their intended end of day imbalance position at predefined times during the day. Transco considers that providing misleading or inaccurate information to Transco will only serve to worsen an individual Users cash position in respect of INS charges and the re-distributive effects of balancing neutrality.

Transco might expect some disparity between a User's INS Nomination and the current imbalance indicated on AT-Link, particularly ahead of the gas day, as the two types of nominated imbalance represent different projections. The INS Nomination would indicate a User's intended end of day imbalance, whereas the current AT-Link imbalance represents a User's prevailing nominated flows into and out of the system and completed trades. As such, Transco considers that the INS Nomination would complement existing gas flow nominations.

11.8 INS Charge Price.

LE favours the proposed SMP- SAP differential price option, but considers that a fixed price "*also has significant merits in that they both*

reflect clear cashout losses/gains in changing balancing intentions". SP also expressed support for the proposed price option.

AEP considers that the proposed INS Charge Price "*is likely to give rise to the most cost reflective charges, that do not undermine the incentive to balance provided by cashout prices*". However, it raised concerns that the charge "*may not be sufficient to encourage shippers to provide accurate*" end of day imbalance forecasts. It further considers that, "*if the INS charge is set at an appropriate level and the incentives have the desired effect, balancing costs should be contained and more accurately targeted*".

Innogy considers that for the scheme to be effective, "*the incentives would need to be set at a high level, and this will create a tension between the INS incentives and end of day cash-out regime*".

BG believes that the "*proposed level of the charge is much too high*" and the associated costs are likely to be factored into higher spot prices. It proposes the application of scaling factors to reduce the SMP-SAP differentials, initially set at a "low level", and increased thereafter depending upon experience. It suggests initial factors of 0.238 for SMP Sell and 0.210 for SMP Buy to provide "*information cost of 0.2 p/th over the four accounting periods"*, given the current fixed SMP differentials. It contends that this "*still provides a sufficient incentive to provide accurate forecasts to Transco and more importantly, maintains the primary financial incentive of balancing*".

Marathon considers that the Proposal "*could confuse the cashout signals and incentives to balance as Users attempt to maintain their nominated position rather than balance the actual position*".

BGT "*do not agree that* [the Proposal] *is complementary to the incentives upon Shippers to balance*". It expressed concern that the Proposal "*could have the effect of a disincentive for a shipper to return to a balance position*".

Agip "*considers it appropriate to set the INS charge to zero, as* [under their Licence obligations] *shippers would still be incentivised to provide accurate nominations*".

Dynegy considers that "*only charging INS on a day when Transco takes a balancing action does not incorporate the movement in linepack between days*".

Transco's response:

Transco acknowledges that the charge level is likely to be an important factor influencing Users' behavioural response to this Proposal. In particular, Transco considers that the price should be dynamic and, as far as possible, reflect the value of within day flexibility on the system.

Transco considers, as a result of the extensive discussion on this issue by the Workstream, that the proposed INS Charge Price meets, above any other option debated by the Workstream, most of the attributes that are generally desirable for such a charge, as stated in section 2 of this report. In light of the contrasting views expressed by respondents on the level of the INS Charge Price, Transco suggests that it would be appropriate that the proposed INS Charge Price is implemented at the level advocated by the majority of the Workstream attendees, but that the level of the INS Charge Price is reviewed in light of operational experience.

With regard to comments expressed by AEP, BG, BGT, Innogy, and Marathon concerning the interaction of the imbalance cash-out incentives and INS, Transco recognises that there is a potential trade off. Imbalance charges within the Network Code incentivise Users to achieve a balanced position by the end of the gas day, whilst INS charges would incentivise Users to provide the most accurate information about their end of day imbalance. The parameters put forward in this Proposal, as a result of development by the Workstream, define stronger incentives to achieve an end of day balance at any time before the last INS assessment time. Beyond that a User would be neutral as to whether to endeavour to achieve an end of day balance or its INS declared position. Transco therefore considers that, in the current formulation, the INS incentive is complementary to, and reinforces, the discipline and intentions behind the existing balancing incentives.

Transco recognises Dynegy's concerns regarding the setting of the INS Charge Price to zero in the event that Transco does not take a market balancing action. This was one of the key principles of the scheme that was agreed by the Workstream to ensure that the INS Charge Price was dynamic and related to the balancing costs incurred. As Transco is incentivised to minimise daily NTS linepack changes, if the projected closing linepack differed from the opening position, Transco would be encouraged to undertake market balancing actions, thus "switching on" the INS Charge.

11.9 <u>INS Nomination Times, Scaling Factors.</u>

SP supports the proposed INS Nomination Times and Scaling Factors, whilst also suggesting that "*operation of the scheme could eventually lead to a more optimal scaling factor application and a different time distribution*".

AEP considers that "*uniform scaling factors of 0.25 throughout the day are a pragmatic starting point*".

Powergen considers the proposed INS nomination times to be arbitrary.

Transco's response:

Transco has proposed INS Nomination Times that are consistent with both the NDM Forecast publication timescales and the key times during the balancing period at which Transco assesses the system balance. As such, Transco does not, in its opinion, agree with Powergen's contention that the times are arbitrary.

Transco agrees with SP and AEP that the proposed INS Nomination Times and Scaling Factors are a pragmatic starting point that should be reviewed in light of operational experience.

11.10 INS Tolerance Quantity.

AEP believes that "*if the NDM Forecast Deviation were removed* [as a result of Modification Proposal 0511], *then it should also be removed from INS calculations, for the sake of consistency*".

BG "*does not support there being a INS Tolerance Quantity*", irrespective of any potential outcome of Modification Proposal 0511.

Transco's response:

Transco considers that the INS Tolerance Quantity should be applied such that consistency is maintained with NDM forecast related tolerances in other areas of the regime. The INS Tolerance Quantity should thus, in Transco's opinion, be applied if this Proposal is implemented.

In the event that Modification Proposal 0511 results in the removal of the NDM Forecast Deviation tolerance from the imbalance cash-out regime, then Transco would consider raising a Modification Proposal to set the INS Tolerance Quantity to zero. As part of the development of the system to support introduction of this Proposal, Transco will ensure that removal of the INS Tolerance Quantity can be achieved at short notice and without incurring significant additional cost.

11.11 Within day trading and market volatility/liquidity.

Dynegy believes that the Proposal will encourage trading ahead of, as opposed to within, the gas day, and "*threatens the continued development of the liquid and transparent spot market*". This view is also held by SGD.

TXU expressed concern that the proposal will "*reduce within-day trading and market liquidity, which will directly impact the efficient operation of the regime*".

STUK believes that "*there could be a dampening effect on liquidity in the within day market*", which could affect small shippers ability to balance, inhibit within day shipper trading with Transco and adversely affect the secondary capacity market.

BG expressed concern that INS "*will also widen the bid/offer spread on the OCM as the potential charges are factored into the price*". This view is also held by BGT. BG adds that, in its opinion, "*it is important for the industry to determine how critical the facilitation of within day trading is versus the overall stability of the system*."

Transco's response:

Transco acknowledges the views expressed by BGT, BG, Dynegy, SGD, TXU, and STUK that within day trading volumes could be reduced by the introduction of this Proposal. However should this be the case, then this might be a result of Users being encouraged to enter the day in a more balanced position, thereby encouraging much greater liquidity ahead of the gas flow, particularly at the day ahead stage. If this happens, then Transco considers that this should be considered a benefit to the regime rather than a problem, and agrees with BG that "*it is important for the industry to determine how critical the facilitation of within day trading is versus the overall stability of the system*."

Transco refutes the suggestion that within day liquidity will suffer significant reductions. In the event that circumstances altered from a User's expectation within day due to, for example, demand change or supply loss, the User would be incentivised via this Proposal to maintain its declared end of day imbalance. Therefore it is by no means certain that within day trading would be reduced and, to the contrary, could even increase as a result of this Proposal, with such trading being entirely consistent with generating flows on the system that efficiently use the pipeline network.

Transco does not consider that the "costs of INS" will be factored into Bids/Offers on the OCM. Any User changing gas flows onto the system to support a trade will not be changing its imbalance position, and therefore will not face any incremental costs associated with INS.

Transco also considers that the likelihood of late residual balancing actions may be decreased as a result of improvements in information accuracy, thus potentially reducing a source of market volatility.

11.12 <u>Transco's residual balancing role.</u>

SGD considers that the Proposal "*will encourage Transco to take even fewer actions"*, and that such actions "*will not necessarily be more efficient*". Dynegy also holds this view.

BGT considers that the Proposal "*may have the effect of confusing which party is taking action to return to a balance position*". It adds that there may be "*the possibility of Transco taking additional and in some cases unnecessary actions based upon the information*" that would be provided by Users under this Proposal.

TXU contends that the role of Transco as system balancer may increase as a result of INS incentives impacting "*shippers ability to respond to market shocks and system or offshore problems*".

Innogy concludes that, if the Proposal is implemented, Transco could become the "*major, rather than residual*", system balancer, and result in "*a pseudo gate closure regime, where shippers take no within day balancing actions due to penal INS charges and Transco manages the end of day system position*". It considers that, if the intent of the proposal is to introduce a gate closure style regime, which in its opinion, is a backward step to the pre-October 1999 regime, then this should be debated under Review Proposal 0513.

Transco's response:

Transco notes the contrasting views expressed by BGT, BG, Dynegy, TXU, SGD, and STUK with regard to whether implementation of this Proposal would result in an increased or decreased role for Transco as residual system balancer.

As discussed in section 11.8 of this report, the proposed INS Charge Price has been developed by the Workstream to ensure that financial incentives on Users to balance are always stronger than, or equal to, the incentives under INS. Hence a User would still be incentivised to respond to "*market shocks and system or offshore problems*", as noted by TXU, any INS charges would not prevent a User responding in these circumstances. This Proposal would, however, incentivise the User to inform Transco of any change to its previously declared imbalance as soon as possible, allowing Transco to more accurately assess the system balance and undertake efficient remedial balancing actions on behalf of the community. If this Proposal is implemented, Transco therefore expects that, all other influencing factors remaining equal, it would take fewer balancing actions that might be considered "inefficient".

Transco considers that the quantities it requires to balance the system depends on the User incentives to balance. However, in Transco's opinion, it is essential to recognize that this might not be the case if Users in aggregate "swing" on the system forcing Transco to take unnecessary and potentially wasteful actions. Indeed it might be that Transco's role could be more efficient if Users have much stronger incentives to meet nominated imbalances. From a System Operator perspective, a regime based on stronger nomination incentives may yield significant efficiency benefits. Transco therefore considers that

this Proposal takes an initial step towards "firmer" nominations that may significantly improve regime operation. However, Transco recognises that there is an inherent conflict within the current regime between physical operational efficiencies and the promotion of within day trading opportunities that might be likely to generate larger within day linepack variations than would otherwise be the case.

With regard to the views expressed by Innogy regarding INS as a "*pseudo gate closure regime*", Transco considers that this would suggest that a User would be prevented from adjusting its imbalance within a balancing period; INS does not restrict this activity. Under this Proposal, a User may enter the day with a declared AT-Link nominated imbalance, but with the intention of achieving a balanced position by the end of the day. INS allows this to happen without penalty. To achieve this, the User merely signals its intentions to move its prevailing imbalance position by registering its INS nomination to its preferred imbalance position at each INS assessment time. As long as the User then adjusts its imbalance position accordingly, either through physical changes or by trading, then it would not incur any INS charge. This is entirely at odds with a gate closure principle, which prevents a User's commercial freedom to re-nominate.

11.13 Transco's incentive arrangements.

Dynegy believes that, if the Proposal is implemented, "*such a fundamental change to the balancing regime would necessitate a change to Transco's incentives from the outset, avoiding the opportunity for excessive returns to be generated*".

Transco's response:

Transco has put forward this Proposal as the first step of a reform programme designed to improve the efficiency of the regime. Whilst unrelated to the incentive, in the event that such reforms give rise to increased benefit to Transco under the incentive, then such an outcome should be welcomed given that it should indicate greater benefits accruing elsewhere from more efficient operation of the regime.

Transco suggests that this concern should not deflect attention from the benefits of the INS proposal, since improved balancing efficiency would benefit both Users and Transco. Should Transco benefit through its energy incentive from User's behavioural changes, then it should be recognised that Users and, presumably end consumers, would have benefited from more accurate cost targeting and potentially reduced balancing costs.

11.14 System balancing costs.

BG expressed concern that INS would exacerbate the revenue generative nature of the current Balancing Neutrality arrangements

which, it believes, was a result of the introduction of arbitrary fixed SMP cash-out differentials.

Marathon notes that the *"cost per therm of throughput has actually beeen positive, resulting in a net rebate for the community"*, and is therefore not convinced that INS is necessary.

SSE notes that *"overall costs of system balancing are currently generating a positive smear back to shippers via neutrality"*.

Transco's response:

Transco does not consider the fact that there has been a net Balancing Neutrality revenue, and therefore a smear payment to Users, necessarily implies improvements in the efficiency of the regime, as other indicators need to be taken into account. Analysis of the level of information uncertainty and disparity between the various sources of information has shown continued deterioration. This has resulted in difficulties in assessing the system balance and therefore potentially inefficient actions.

11.15 <u>INS – incentive or charge?</u>

Agip considers that "*it is very unlikely that shipper will ever achieve a zero imbalance and so will always incur charges under INS*".

BP supports the philosophy that "*Users that provide relatively "good" information should receive a net reward and those that provide "poor" information, a net charge*".

Transco's response:

The net effect of the INS Charge and the resulting smear payments to Users through Balancing Neutrality gives rise to the effect supported by BP. Users may therefore receive a net reward or net payment as a result of INS, depending on the accuracy of the User's projections of its end of day imbalance.

11.16 <u>Offshore risks.</u>

Agip expressed concern that "*INS penalises shippers who experience unforeseen changes in their portfolio, for example, an offshore supply problem*." It points out that, in these circumstances, "*a shipper already has an abundance of issues to deal with*". STUK and TXU also refer to the impact of offshore problems under INS.

Transco's response:

If loss of supply caused by offshore problems leads to Transco taking balancing actions, the full cost of these actions should not be borne by

the entire community. Transco considers that these costs should be targeted to those Users generating such costs. Transco recognises that this is difficult to achieve in practice but that this Proposal, in Transco's opinion, seeks to improve this cost targeting principle.

Any User affected by supply failure would have two options:-

i) retain its prevailing INS Nomination, thus avoiding INS charges, and re-source its own gas to make up the supply shortfall or reduce its demand. The retention of the prevailing INS Nomination indicates to Transco that the User intends to manage the supply failure, and therefore that Transco would not be required to take remedial balancing actions on behalf of the User; or

ii) change its prevailing INS Nomination and not re-source all, or part of the shortfall. In this case, the User is incentivised to inform Transco of its balancing intentions as soon as possible to minimize its exposure to INS Charges. Transco considers that, in these difficult circumstances, this would enable it to undertake the most efficient remedial action on behalf of the community.

11.17 System stability.

BG believes that the Proposal "*will lead to increased stability within the regime, as shippers are less likely to carry large imbalances for fear of not being able to trade out their positions*".

Dynegy does not "*accept that discouraging shippers from taking large imbalance positions as the start of the gas day benefits the system*".

Transco's response:

Transco concurs with BG's comments in that INS may discourage Users starting the gas day with large imbalances. Under the current regime, Users entering the gas day with large imbalances are able to rectify this position as the gas day proceeds, eventually coming into an end of day balanced position to avoid imbalance cash-out costs. Should INS be implemented, it is anticipated that commercial trading of gas ahead of the gas day will increase the accuracy of nominated imbalances, thereby decreasing input flow rate variations. By discouraging this behaviour, INS would remove, in Transco's opinion, one of the primary drivers of within day linepack variations, and thus increase system stability.

11.18 Implementation timescales.

BG favours a 1st October 2002 start date to provide 6 months system development time, as opposed to the proposed date of 1st September 2002 (section 15).

Transco's response:

Subject to Ofgem approval of the Proposal by 15th February 2002, Transco considers a delivery date of 1st September 2002 is achievable. As Transco considers that this Proposal may yield improvements in the efficiency of the regime, it would be appropriate, in Transco's opinion, to commence the scheme as soon as the required systems have been developed.

11.19 Draft legal text.

BG suggests the following changes to the draft legal text:

i) E5.3.2c - the time of 17:00 hours at which a default INS Nomination would be applied should be changed to 19.00 hours.

Transco's response:

The current Network Code provisions (Section C1.2) allow Users to make (input) nominations by 16:00 ahead of the gas day and then submit re-nominations after 17:30 ahead of the gas day. Ideally, the INS Nomination should be submitted immediately after Users have made other nominations i.e. immediately after 16:00, but no later than 18:00, the first hour at which Transco may currently need to assess the system balance. Transco considers that an extra hour after submission of other nominations provides Users with sufficient flexibility to complete INS Nominations by 17:00, and that, therefore, the proposed legal text should remain unaltered.

ii) E5.3.5 - the time of 04:00 hours up to which a User can change its INS Nomination should be changed to 22:00 hours, as this is the last INS recording time.

Transco's response:

The latest time for submission of the Forecast Daily Imbalance Nomination is proposed to be 04:00 on the gas day. Although the final assessment time is at 22:00, Users should still be able to maintain the accuracy of their balancing intentions until the end of the day such that Transco, if required, could utilise the information in its balancing action decision making process. In addition, Transco considers that consistency should be maintained with processes for other types of nomination.

iii) E5.3.7 - the 'default' Initial Forecast Daily Imbalance Nomination of zero should be taken as the NB10 imbalance, to potentially provide an incentive for the User to submit a nomination.

Transco's response:

The value applied for the 'default' Initial Forecast Daily Imbalance Nomination is intended to provide an incentive for Users to enter accurate projections of their intended end of day imbalance. Transco agrees with the proposal made by BG that a default value equal to a User's NB10 imbalance may provide a stronger incentive than a default value of zero. Transco has therefore included relevant changes in the final version of the legal text.

iv) E5.3.9- consistency should be applied to terms such as INP and INSCP both of which refer to the Incentivised Nomination Price.

Transco's response:-

Transco agrees with BG that there should be consistency in the abbreviations, and has included relevant changes in the final version of the legal text.

12. The extent to which the implementation is required to enable Transco to facilitate compliance with safety or other legislation

Transco considers that, given potential exposure to costs for changing intended end of day imbalance positions, Users may be discouraged from coming into the day with large imbalance positions. This may therefore remove, to an extent, one of the primary causes of within day NTS linepack variations, and thus facilitate more stable and reliable operation of the network.

13. The extent to which the implementation is required having regard to any proposed change in the methodology established under Standard Condition 4(5) or the statement furnished by Transco under Standard Condition 4(1) of the Licence

Not applicable.

14. Programme of works required as a consequence of implementing the ModificationProposal

System changes are required to various AT Link, financial, administration and reporting processes.

15. Proposed implementation timetable (including timetable for any necessary information systems changes)

The proposed timetable would be as follows:

Draft Modification Report published	21/12/01
Industry consultation close out	16/01/02
Final Modification Report published	06/02/02
Anticipated Ofgem decision	15/02/02

Systems changes live (subject to above)	29/08/02
Scheme start date (subject to above)	01/09/02

16. Recommendation concerning the implementation of the Modification Proposal

Transco recommends that this Proposal is implemented.

17. Restrictive Trade Practices Act

If implemented this proposal will constitute an amendment to the Network Code. Accordingly the proposal is subject to the Suspense Clause set out in the attached Annex.

18. Transco's Proposal

This Modification Report contains Transco's proposal to modify the Network Code and Transco now seeks direction from the Gas & Electricity Markets Authority in accordance with this report.

19. Text

SECTION E: DAILY QUANTITIES, IMBALANCE AND RECONCILIATION

Add new paragraph 5.3 to read as follows:

"5.3 **Incentivised Nomination Charges**

5.3.1 At each Forecast Daily Imbalance Time (in respect of a Day) if a User's Prevailing Forecast Daily Imbalance differs from the User's Daily Imbalance for the Day the User shall pay a charge ("**Incentivised Nomination Charge**") in accordance with this paragraph 5.3.

5.3.2 For the purposes of this paragraph 5.3:

(a) "**Forecast Daily Imbalance**" is, in respect of a Day and in relation to a User, the User's projection of its Daily Imbalance for that Day;

(b) "**Forecast Daily Imbalance Time**" is, in respect of a Day, each of 02:00 hours on the Preceding Day and 12:00 hours, 18:00 hours and 22:00 hours on the Day;

(c) "**Initial**" Forecast Daily Imbalance is, in respect of a Day and in relation to a User, the Forecast Daily Imbalance prevailing at 17:00 hours on the Preceding Day;

(d) "**Prevailing Forecast Daily Imbalance**" is, in respect of a Day and in relation to a User, the User's current Forecast Daily Imbalance (calculated in accordance with this paragraph 5) at a Forecast Daily Imbalance Time; and

(e) "**Prevailing Provisional Daily Imbalance**" shall mean the projected Daily Imbalance of a User in respect of a Day (recorded on the UK Link System) at 17.00 hours on the Preceding Day determined by Transco by reference to Nomination information available to it at such time, excluding the Forecast Daily Imbalance referred to in paragraph (a) above.

5.3.3 Each User may submit a notice ("**Forecast Daily Imbalance Nomination**") specifying its Forecast Daily Imbalance for a Day.

5.3.4 Each Forecast Daily Imbalance Nomination shall specify:

(a) the identity of the User;

(b) the Gas Flow Day; and

(c) the Forecast Daily Imbalance for the Gas Flow Day.

5.3.5 A Forecast Daily Imbalance Nomination may be submitted no earlier than 30 Days before the Gas Flow Day and no later than 04:00 hours on a Gas Flow Day.

5.3.6 A User may revise an Initial Forecast Daily Imbalance Nomination in respect of a Gas Flow Day by submitting a further Forecast Daily Imbalance Nomination and where a User submits a further Forecast Daily Imbalance Nomination it shall replace the Initial Forecast Daily Imbalance Nomination or any subsequent Forecast Daily Imbalance Nomination (but without prejudice to the application of this paragraph 5.3

in respect of the Prevailing Forecast Daily Imbalance in respect of any earlier Forecast Daily Imbalance Time).

5.3.7 Without prejudice to paragraph 5.3.6., where a User does not submit a Forecast Daily Imbalance Nomination in respect of a Day by 17.00 hours on the Preceding day the User will be deemed to have submitted an Initial Forecast Daily Imbalance Nomination equal to the Prevailing Provisional Daily Imbalance.

5.3.8 For the purposes of the further provisions of this paragraph 5.3:

(a) a User's "**Forecast Performance Measure**" at a Forecast Daily Imbalance Time in respect of a Day shall be calculated as follows:

$$FPM_t = abs\ ((N_t - A) - INTQ_t)$$

where:

FPM_t is the Forecast Performance Measure at Forecast Daily Imbalance Time '*t*';

N_t is the User's Prevailing Forecast Daily Imbalance at Forecast Daily Imbalance Time '*t*';

A is the User's Daily Imbalance in respect of the Day; and

$INTQ_t$ is the User's Incentivised Nomination Tolerance Quantity at time '*t*';

(b) the "**Incentivised Nomination Price**" is in respect of a relevant Day, the price (in pence/kWh) calculated as follows:

(i) where the User's Daily Imbalance is positive for the relevant Day:

$$INP = (SAP - SMSP)$$

(ii) where the User's Daily Imbalance is negative, or equal to zero, for the relevant Day:

$$INP = (SMBP - SAP)$$

where:

INP is the Incentivised Nomination Price for the relevant Day;

SAP is the System Average Price for the relevant Day;

SMBP is the System Marginal Buy Price for the relevant Day; and

SMSP is the System Marginal Sell Price for the relevant Day; and

(c) a User's "**Incentivised Nomination Tolerance Quantity**" at a Forecast Daily Imbalance Time '*t*' is calculated as follows:

(i) where, $N_t - A$ is greater than *0*:

$$INTQ_t = min\ (\ max\ (NDMA\ - NDMN_t, 0), N_t - A)$$

(ii) where, $N_t - A$ is less than, or equal to, *0*:

$$INTQ_t = max\ (min\ (NDMA\ - NDMN_t, 0), N_t - A)$$

where:

NDMA is the aggregate of the User's UDQO's in respect of NDM Supply Point Components and relevant Connected System Exit Points for the relevant Day;

NDMN is the aggregate of the Nomination Quantities under the User's Prevailing Relevant NDM Nomination at each Forecast Daily Nomination Time '*t*',

and 'N_t' and 'A' have the meanings given in paragraph (a); and

(d) the "**scaling factor**" in respect of each Forecast Daily Imbalance Time in respect of a Day is 0.25.

5.3.9 The Incentivised Nomination Charge payable by a User in respect of a Daily Imbalance Nomination Time shall be calculated as follows:

$$INS_t = (\ FPM_t\ *\ SF_t\ * INP\ )$$

where:

INS_t is the Incentivised Nomination Charge;

FPM_t is the User's Forecast Performance Measure;

SF_t is the scaling factor; and

INP is the Incentivised Nomination Price,

in each case in respect of Forecast Daily Imbalance Time '*t*'.

5.3.10 In respect of a User and in relation to a Day, the "**Total Incentivised Nomination Charge**" payable by a User is the sum of the Incentivised Nomination Charges payable (if any) by the User in respect of the Day and calculated as follows:

$$TINC = \sum_{t=l}^{n} INC_t$$

where:

TINC is the Total Incentivised Nomination Charge;

INC is the Incentivised Nomination Charge payable by the User in respect of each Forecast Daily Nomination Time '*t*',

where '*n*' is the number of Forecast Daily Nomination Times in respect of a Day.

5.3.11 Total Incentivised Nomination Charges shall be invoiced and payable in accordance with Section S."

5.3.12 In the event that Transco does not undertake a Market Balancing Action on a Day then the Total Incentivised Nomination Charge payable by a User in respect of that day, will be zero.

SECTION F: SYSTEM CLEARING, BALANCING CHARGES AND NEUTRALITY

Amend paragraph 4.4.2 to read as follows:

"(c) ….in respect of that Day;

(d) Physical Renomination Incentive Charges….; and

(e) Total Incentivised Nomination Charges payable to Transco in respect of that Day."

Amend paragraph 4.5.3(a)(ii) to read as follows:

" …. Physical Renomination Incentive Charges, Total Incentivised Nomination Charges, Balancing Charges…."

Amend paragraph 4.5.3(b)(ii) to read as follows:

" …. Physical Renomination Incentive Charges, Total Incentivised Nomination Charges, Balancing Charges…."

Amend paragraph 4.5.3(b)(iii) to read as follows:

" …. Physical Renomination Incentive Charges, Total Incentivised Nomination Charges, Balancing Charges…."

SECTION S: INVOICING AND PAYMENT

Add text at paragraph 5 of Annex S-1 to read as follows:

"(k) …..; and

(l) Total Incentivised Nomination Charges."

Signed for and on behalf of Transco.

Signature:

Tim Davis
Head of Regulation NT&T

Date:

Gas and Electricity Markets Authority Response:

> In accordance with Condition 9 of the Standard Conditions of the Gas Transporters' Licences dated 21st February 1996 I hereby direct Transco that the above proposal (as contained in Modification Report Reference **0479**, version **4.0** dated **16/05/2002**) be made as a modification to the Network Code.

Signed for and on Behalf of the Gas and Electricity Markets Authority.

Signature:

The Network Code is hereby modified with effect from, in accordance with the proposal as set out in this Modification Report, version **4.0**.

Signature:

Process Manager - Network Code

Transco

Date:

Annex

1. Any provision contained in this Agreement or in any arrangement of which this Agreement forms part by virtue of which The Restrictive Trade Practices Act 1976 ("the RTPA"), had it not been repealed, would apply to this Agreement or such arrangement shall not come into effect:

   (i) if a copy of the Agreement is not provided to the Gas and Electricity Markets Authority ("the Authority") within 28 days of the date on which the Agreement is made; or

   (ii) if, within 28 days of the provision of the copy, the Authority gives notice in writing, to the party providing it, that he does not approve the Agreement because it does not satisfy the criterion specified in paragraphs 1(6) or 2(3) of the Schedule to The Restrictive Trade Practices (Gas Conveyance and Storage) Order 1996 ("the Order") as appropriate

   provided that if the Authority does not so approve the Agreement then Clause 3 shall apply.

2. If the Authority does so approve this Agreement in accordance with the terms of the Order (whether such approval is actual or deemed by effluxion of time) any provision contained in this Agreement or in any arrangement of which this Agreement forms part by virtue of which the RTPA, had it not been repealed, would apply this Agreement or such arrangement shall come into full force and effect on the date of such approval.

3. If the Authority does not approve this Agreement in accordance with the terms of the Order the parties agree to use their best endeavours to discuss with Ofgem any provision (or provisions) contained in this Agreement by virtue of which the RTPA, had it not been repealed, would apply to this Agreement or any arrangement of which this Agreement forms part with a view to modifying such provision (or provisions) as may be necessary to ensure that the Authority would not exercise his right to give notice pursuant to paragraph 1(5)(d)(ii) or 2(2)(b)(ii) of the Order in respect of the Agreement as amended. Such modification having been made, the parties shall provide a copy of the Agreement as modified to the Authority pursuant to Clause 1(i) above for approval in accordance with the terms of the Order.

4. For the purposes of this Clause, "Agreement" includes a variation of or an amendment to an agreement to which any provision of paragraphs 1(1) to (4) in the Schedule to the Order applies.