Transco Network Code Proposal No. 0414

Energy Balancing Incentive Re-design

WORKSTREAM REPORT

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Appendices

1. Background

As part of the reform of Gas Trading Arrangements, an energy incentive was introduced on 1 October 1999 as part of the changes arising from the implementation of Modification Proposal 0313, "Modification of the Energy Balancing Regime".

It was recognised that the incentive might need to be evolved as part of the ongoing New Gas Trading Arrangements (NGTA) development and that Ofgem would analyse the effects of the incentive as part of its review of the first six months operation of the NGTA require.

Most of the industry recognised that the incentive needed reconsideration and many aspired to delivering an enhanced energy incentive that might better facilitate the relevant objectives for implementation from 1 October 2000.

Transco therefore raised Modification Proposal 0414 "Energy Incentive Redesign" which the July Modification Panel referred to the Energy and Capacity Worksteam for consideration. This report has been written to inform the Modification Panel of the discussions that have taken place.

2. Network Code Modification Proposal 0414 – "Energy Incentive Redesign"

Transco formulated this proposal to advocate an energy incentive based upon overall neutrality costs.

In the nature of Proposal section Transco stated:

"The proposal is designed to generate a discussion as to whether Transco's objective function is "total daily balancing neutrality costs" or whether an alternative is more appropriate and to implement a revised incentive if considered desirable.

Transco believes that its incentive in respect of the residual system balancing service that it provides, should be to provide such a service at a minimum cost to the industry.

Whilst the current energy incentive encourages a degree of "price efficiency" in respect of Transco's system balancing choices, actions which set out to maximise the benefits of the existing incentive structure may not necessarily be consistent with cost minimisation.

As an alternative to the present structure, Transco would therefore propose an incentive based on daily neutrality costs. This might address the perceived shortcomings of the present incentive structure which is based on price alone. Within this framework, Transco believes consideration should be given to:

-the scope and definition of daily neutrality costs for the purposes of the incentive.
-the basis for setting the Transco risk/reward mechanism e.g. defining caps and collars on Transco's exposure, the daily performance measure that would be consistent with zero reward, the relevant sharing proportions to apply between such measure and the values consistent with risk/rewards associated with the collar/cap and any appropriate annual cap/collar".

However, Transco anticipated that this might not be the preferred approach for some shippers, so in order to facilitate debate and the exploration of other alternative structures, Transco included in the Purpose of Proposal section:

"The proposal is designed to generate a discussion as to whether Transco's objective function is "total daily balancing neutrality costs" or whether an alternative is more appropriate and to implement a revised incentive if considered desirable".

The Workstream debate about this modification was extensive during the summer period. However the Workstream agreed to suspend further discussions about the proposal until the Ofgem document about future energy balancing regime developments was published.

Despite this, at the November Modification Panel, it was suggested that the debate should be resumed and hence the Workstream have given the issue further consideration.

3. Workstream discussions prior to the November Modification Panel

The Workstream gave this Modification Proposal considerable attention throughout the summer period. Attendees recognised that the energy incentive is inextricably linked to Transco's role, the nature of Transco's balancing tools and shipper incentives to balance. The Workstream eagerly awaited the publication of an Ofgem document about the operation and evaluation of the regime, but such a document which might have facilitated discussions was not forthcoming.

Many shippers were concerned that Transco's commitment to sole use of the OCM for 'normal' balancing would end from 1st October 2000. Many shippers expressed significant concerns about Transco having greater commercial freedom and the risks of Transco being disruptive in the market if it was able to operate using different energy balancing tools; particular concern was expressed about Transco's use of OTC gas and/or options market.

Transco indicated that it felt its objective is to deliver a low cost labouring service and that the incentive should be appropriately aligned. Under this circumstance, Transco's interests would be best served by cost effective actions and shippers should be confident that an underlying economic rationale would underpin Transco balancing action policy. Despite this, several shippers asserted that it was inappropriate for Transco to face any incentive in this area, let alone increase such incentives for a market player who has access to so much privileged information.

The key points emerging from these early discussions were as follows:

- Mod 313 had introduced a price based energy incentive, mainly to provide commercial incentives on Transco to avoid extreme priced actions
- The current incentive had delivered the primary objective although many industry players recognised that the current energy incentive regime has limitations :
    - it may discourage Transco from taking an action
    - some believe it may discourage Transco actions on both sides of the market

    - when Transco needs to take action it may encourage actions of a size greater than is strictly necessary from an operational perspective
- The current incentive was recognised as an interim incentive
- In the longer term it may be appropriate to consider an integrated incentive covering both energy and capacity although this is generally considered unachievable in the next year or so
- Transco had therefore raised Modification Proposal 414 to advocate alternative "energy" incentives which might apply in the interim
- Modification Proposal 414 had proposed an incentive based on balancing neutrality costs (ie the net cash flow associated with Transco system balancing, shipper imbalance cashout and scheduling charges) but was designed to facilitate a much wider consideration
- One large shipper had a particular concern that Transco should have no price setting role, believing Transco should be solely concentrating on achieving an appropriate end of day linepack position
- Transco had circulated a range of incentive ideas in a paper ahead of the 14th June Workstream meeting. These included a range of incentives ranging from the simple incorporation of an additional linepack term through to an incentive scheme that might be based on SMP volatility index measures (which had been developed in response to shipper assertions that Transco actions within day might be impacting the forward curve)
- Workstream meetings noted that the discussion of incentives was inextricably linked to shipper incentives to balance, Transco's role and alternative balancing tools. The workstream could not reach a consensus as to a preferred revision for the energy incentive. In particular several shippers believed that Transco's preference for a "balancing neutrality based" incentive could encourage Transco to set wide cash-out prices just to "catch shippers out"
- The community were widely divided on the nature of Transco's role. Many believe that Transco should act as no more than a "residual system balancer"; others believe that Transco should have a pro-active role trading in the market and developing a wide range of alternative balancing tools to deliver "more efficient balancing". Others suggested that incentives should be dropped and that Transco should be encouraged to participate in the market only under very prescriptive rules
- Most shippers expressed concern about Transco having full commercial freedom to exploit the full optionality associated alternative forms of balancing tool. Many felt that Transco access to privileged information would mean that it would not be operating on a "level playing field" with other market participants
- Ofgem indicated that incentives on Transco were more likely to generate efficient outcomes compared with prescriptive rules. Ofgem had indicated that it would like to see incentive changes implemented for 1st October and that the incorporation of a linepack term into the energy incentive would be an improvement.

The Workstream therefore agreed to suspend further discussions about this Modification until the Ofgem document about future energy balancing regime developments was published. During the summer it was still intended that this document would be produced to enable resumption of Modification Proposal 414 discussions and implementation of a new incentive on 1st October 2000.

The November Modification Panel recently considered the draft Development Group report arising from discussions about Modification Proposal 0433 – "Amendment of System Cash-out Prices". Attendees at this meeting suggested that consideration of Modification Proposal 0413 – "Energy Incentive Re-design" should be resumed even though the Ofgem energy balancing regime document had not been published.

4. <u>Workstream discussions since the November 2000 Modification Panel</u>

The December 2000 Energy and Capacity Workstream therefore reconsidered the above Modification Proposal.

Ofgem statements had previously suggested that the introduction of a linepack term would be a beneficial addition to the energy incentive. The workstream therefore considered the introduction of a simple additional term into the current incentive structure. Such a term might have a performance measure calculated as absolute magnitude of either (opening – closing linepack linepack) or (closing – target linepack).

The Workstream discussion also contemplated an incentive structure whereby Transco's performance might be assessed against two different performance measures; one based on a price efficiency term, the other based on some physical system balancing term. Transco's risk reward would then be determined by identifying the worse performance against the two performance measures and then using this to determine the daily incentive credit or debit.

The workstream requested a paper on this proposal and a paper from John Williams of BGT was duly circulated to the RGTA circulation list ahead of the 14th December meeting.

The following key points emerged from the discussion at the 14th December meeting:

- The current price incentive is based on both Buys and Sells but the incentive structure is very similar, in effect, to having a single incentive based on the SMP Buy – SMP Sell differential
- There are two likely performance measures that could be used to provide Transco with an incentive to "value" linepack; the absolute value of either (starting – closing linepack) or (closing – target linepack)

Subsequent meetings (20th December, 4th January, 17th January, 1st February) further discussed the three forms of model: the "worse of approach", the addition model" and the "hybrid model". The formulations, incentive properties and possible parameter values yielding particular (outcomes/based on gas year 99/00 performance) are defined in the following documents attached as appendices 4 and 5:

- Energy Incentive Considerations (note circulated prior to 17 January Workstream discussion
- Network Code Modification Proposal 0414
  Proposals to reform the Transco Energy Incentive
  Incorporation and Linepack Performance Measure
  (note prepared for 1 February Workstream session)

The meetings agreed that the Linepack Performance Measure should be based on the absolute magnitude of the difference between opening and closing Linepack.

5. 1st February 2000 Energy Workstream Recommendations

The Workstream reviewed recent discussions and considered that none of the 3 proposals being considered had unambiguously better incentive properties. However the Workstream concluded that, on balance, having taken account of possible parameter setting issues that either the "Addition" or the "Hybrid" model might be preferred to the "worse of approach". Either of these approaches were viewed as better facilitating the relevant objectives when compared with the current energy incentive.

Several shippers agreed that since the financial effects of both were very similar, then the choice was not likely to be critical.

Advocates of the "hybrid" model felt that the "neutral points" discussed in the meetings should be regarded as "targets". The "hybrid" model then only provides a reward to Transco when it achieves both targets. Even in the "zero" reward range proponents suggested that Transco would have incentives to move (if it thought it could) into the positive reward area.

Advocates of the "addition" model believed that this form creates more "continuous incentives", at all times Transco will face incentives to make marginal improvements in the performance measures.

Whilst Transco felt that both incentive schemes offered an improvement over the current incentive, it felt that the continuous incentive properties of the "additive" model were more likely to better fulfil the relevant objectives.

The Workstream debated the process issue about how to proceed given that the Workstream was divided as to which option to recommend. It was concluded that this Workstream Report should document the divided opinion, but the Workstream noted that Transco could be expected to raise a Modification Report for final consultation that would feature a proposal based on an "addition" model. It was noted that any shipper who felt that the "hybrid" model better facilitated the relevant objectives would be able to subsequently propose an alternative proposal.

The Workstream further discussed the parameter setting process for the proposal. It was agreed that Transco would need to insert parameters in the Modification Report although shippers asked that the report should canvass for views as to how such parameter value should be determined and/the levels at which such values might be set.

Several shippers indicated that they felt that it would be inappropriate for Transco to propose parameters that would yield the same outcome (ie. £322k benefit) if the experience of 99/00 were to be repeated. The intention of the incentive would be that Transco would need to perform better to achieve a comparative return. One shipper suggested that the incentive should be calibrated to yield a zero outcome even taking account of some expected performance improvement.

6. Request for February Modification Panel Discussion

It is the view of the Workstream that there is little point in continuing to debate this proposal in the Workstream.

Many within the Workstream continue to have significant reservations about the merits of Transco having an energy incentive.

However, if Transco is to continue to have an incentive, then the majority view of the Workstream was that either the “additive” or “hybrid” models would provide an appropriate way of incorporating a consideration of linepack value into the Transco balancing action decision making process. Most Workstream attendees consider that either approach is likely to better facilitate the relevant objectives when compared with the current energy incentive.

The Workstream note that Transco might be expected to advocate the “additive” model and attendees note that shippers would then be able to consider whether they would like to propose an alternative formulation.

The Workstream noted the difficult issue of parameter setting, with some even acknowledging that, given vested commercial interests, it is unreasonable to expect the Workstream to be able to recommend values.

The Workstream would therefore expect Transco subject to acceptance of this report by the February 2001 Modification Panel, to produce a Modification Report that would proceed to consultation.

The Workstream anticipated that such proposal will advocate an “additive” model to incorporate a linepack performance element. The report however, should canvass views as to whether the “hybrid” approach might be considered more appropriate. The proposal will also include suggested parameter values although the consultation should be used to seek views as to how such parameters should be determined and what might be considered to be appropriate values.

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09/02/01