

Transco General Notice
"Enhancements to Winter Injection Process"
Version 1.0

NetworkCode Modification Panel
Modification Proposal 0671: Briefing Paper

This briefing paper outlines the reasons behind Transco's recommendation that Modification Proposal 0671 should proceed to consultation. Transco would wish to reiterate from the outset that whilst the Modification Proposal was only raised shortly prior to the November Modification Panel the underlying issues had been discussed at the NT&T Workstream and a high degree of consensus had been achieved.

Top-up Market Offer Calculation

The Top-up Market Offer calculation is designed to produce a high priced OCM offer so incentivising Users to safeguard alternative sources of gas on high demand days. **The formula** is set out in P 5.3 of the Network Code:

$$T_{MOP} = W + G + E + 20 * \frac{C}{T}$$

W = Storage Withdrawal Charge Unit Rate (p/kWh)

G = Top-up WACOG (Weighted Average Cost of Gas) (p/kWh)

E = Entry Capacity Overrun Charge Unit Rate (p/kWh)

C = Total cost (p) of all Storage Capacity procured at that Storage Facility

T = Total quantity of Storage Space (kWh) procured at that Storage Facility

Typical calculation: gas and storage capacity procured prior to the Winter Period

$$T_{MOP} = 0.017 + 0.883 + 0.006 + 20 * \frac{23,573,000}{52,000,000} = 9.972 (p / kWh)$$

It is worth noting that the dominant terms are associated with cost of Storage Capacity, particularly when a multiplier of 20 is applied

Typical calculation: Winter Injection

Assumptions:

W would probably be the same as identified above (around 0.02 p/kWh)

G would probably be slightly higher (say 1.2 p/kWh). It should be recognised that the Top-up Manager would not make Winter Injections on a very high demand day. On these days withdrawal of storage would be both expected and desired to maintain system security and making Winter Injections on the same days would be inconsistent with that aim. This aspect of stock management is recognised in the present procedures where the Top-up Manager would make downward adjustments to the relevant monitors.

E would probably be the same as identified above (around 0.006 p/kWh)

C would be very low or even zero. This arises from the fact that existing storage arrangements allow for Storage Space to be sold on an interruptible capacity basis if Users who had booked firm Storage Capacity were not utilising that Storage Space.

Taking these assumptions together the calculation then becomes:

$$T_{MOP} = 0.017 + 1.200 + 0.006 + 20 * \frac{0}{52,000,000} = 1.203 (p / kWh)$$

As this would be very close to the purchase price of gas bought on a “below peak” day it would probably be considerably below the marginal price of gas on a “peak” day.

Such a price would not have the incentive properties associated with Top-up gas procured prior to the Winter Period. Indeed, offering gas at a non peak price on a peak day on the OCM might be considered as a counter-incentive to Users securing adequate supplies for such a day.

The Proposal seeks to ensure that TMOP would be independent of whether Top-up Storage Capacity was procured prior to the Winter Period or for the purpose of making a Winter Injection.

Freezing the $20 * C/T$ component at the level set through pre-winter procurement of Storage Capacity would be appropriate and is therefore part of the Proposal. This, however, would only directly apply to Storage Facilities where such a booking had been made.

At Storage Facilities where no pre-winter bookings have been made, a published unit rate of Firm Storage Capacity would, in theory, retain the appropriate incentive properties. Reviewing the potential candidate Storage Facilities, the NT&T Workstream believed that it would be inappropriate to use unit rate prices in the TMOP calculation where:

The standard capacity rates were not published within the public domain; or

There were a range of service durations; even if the capacity rates were published.

Also whilst some Storage Facilities offer Storage Capacity by auction and publish the results there at these potentially a range of service durations and the assumptions on how they would be averaged would add an unwarranted level of complexity. It was, therefore, suggested that these capacity prices at these Storage Facilities should not be considered when deriving a suitable rate for the TMOP calculation.

The most transparent solution was believed to be a unit rate based upon the total quantity of Storage Space procured by Users at Transco LNG Storage Facilities and the cost to Users of purchasing that Storage Space. This is therefore part of the Proposal.

In view of the possibility of this aspect of Network Code User balancing incentives being undermined, Transco believes that a decision on this should be reached without any further delay. The principles have been discussed and developed at three meetings of the NT&T Workstream. Whilst it would be possible to derive equivalent Storage Capacity unit rates, Transco believes that it is most appropriate for these to be suggested for consideration within the representations.

Day Ahead Winter Injection Flexibility

Transco has previously highlighted at Operational Fora and Workstream meetings the desirability of the SO considering, for the purpose of System Balancing, a wide range of nomination type information available rather than just considering nominations made under the

Network Code. Transco believes the industry has recognised the benefits and for System Balancing the Network Code allows the SO to use this flexibility.

Transco views nomination decisions arising from Winter Injection in the same light but the same degree of flexibility is not currently provided in the Network Code. At present, Transco has to make a decision at 13.00 D-1 based upon Network Code Input Nominations made in respect of Storage Facility System Entry Points. A Winter Injection Nomination would also set in motion NBP trades or other gas procurement activities in order that the Top-up Manager would not be out of balance. This in turn might have an effect on OCM prices. As the Day progressed, Input Nominations would, based on System Balancing experience, be adjusted and converge in aggregate terms to the physical Storage Withdrawals but the Top-up Manager would need in consequence to adjust its Winter Injection nomination and potentially to counter the procurement decisions made at the D-1 stage. This element of cycling is not consistent with efficient and economic operation of the System.

It is quite possible that a better snapshot of intended Storage Withdrawals would be available to Transco and this might lead the Top-up Manager to defer making a Winter Injection decision or to reduce the extent of the nomination. It is expected that this would reduce the probability of inefficient cycling of NBP trades and reduce the net costs associated with the Winter Injection quantities.

Whilst this aspect of the Proposal might be considered as less critical than the Top-up Market Offer Price issue outlined above, Transco considers that, following Workstream discussions, the principle is sufficiently developed to warrant consultation.

Top-up Gas Disposal Flexibility

If the Top-up Manager had procured gas it is possible that a clear excess of gas-in-storage would exist later in the Winter Period. This might be the case even if pessimistic assumptions of demand were applied to the stock projections. This would suggest disposal of surplus Top-up gas whenever NBP prices indicated a beneficial result.

The Top-up Manager is, however, limited in its disposal actions at present and is only allowed by the Network Code to make assessments of Top-up surpluses either at the end of each month or during the following Storage Year.

Whilst it has been suggested that there is a link between User support for this Proposal and the outcome of Modification Proposals 0659 and 0660, Transco would point out that any “profits” arising from the timely disposal of Top-up gas would result in a benefit to Users. This potential benefit to Users would not be affected by implementation or otherwise of either of these Modification Proposals. Transco does recognise that if either 0659 or 0660 were implemented the potential costs to Users would also be mitigated by implementation of this Proposal but this would only serve to increase the benefits to Users arising from implementation.

Transco believes that implementation of this aspect would be of benefit to Transco and Users and that the Proposal is sufficiently developed to warrant consultation.