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Promoting choice and value for all customers

Your Ref:
Our Ref:
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20 December 2012

Dear Chris,

Proposal for Exit Capacity Substitution

In your letter dated 30 November 2012, you notified us that a signal for additional exit capacity at Damhead Creek Power Station NTS exit point was received by National Grid Gas (NGG) in the exit allocation process for 2012.

Exit capacity substitution is the process by which unsold baseline exit flat capacity[1] is moved from one or more NTS exit points (donor exit points) to meet the demand for incremental exit flat capacity at another NTS exit point (recipient exit point). Exit capacity substitution can avoid or defer the need for new investment to meet incremental capacity needs, and so help reduce the costs of gas transportation to consumers.

Your letter proposes that the requirement for an additional 54.4 GWh/day at Damhead Creek (the recipient exit point) can be met by substituting 46.5 GWh/day unsold capacity from Tatsfield Offtake (the donor exit point) and that the exchange rate is 0.8546:1. Therefore the signal can be met in full by substitution and the baseline at Tatsfield offtake NTS Exit Point would be revised from its current level of 276,460,000 to 229,973,021 kWh/day on 1 October 2017. At the same time, at Damhead Creek Power Station NTS exit point the current baseline of 40,940,000 kWh/d would be revised to 95,336,184 kWh/d.

We requested further details on the application of the substitution methodology and these are included below on p.3.

This is a positive outcome for consumers. If investment had been needed and the full revenue driver been triggered then the costs to consumers over the five year System Operator incentive period would have been up to £83m. Exit Capacity Substitution was first implemented on 1June 2011 and it is good to see that it is producing benefits for consumers.

[1]National Grid Gas's capacity release obligations are defined in its Gas Transporter licence. Baseline exit flat capacity is the amount of capacity which the licensee is required to offer for sale at an NTS exit point.

The Authority's decision

We have carefully considered the information and proposal submitted by NGG pursuant to Special Condition C8E4(a) of the Licence. Pursuant to C8E4(a)(ix) the Authority has decided to consent to the proposal for the reasons set out above.

Yours sincerely,

Andrew Burgess
Associate Partner, Transmission and Distribution Policy

Signed on behalf of the Authority and duly authorised for that purpose

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Details of Substitution

1. Recipient selection

Damhead Creek was the only NTS Exit Point where an application for Enduring Annual NTS Exit (Flat) Capacity that exceeded the existing level of NTS baseline exit flat capacity was received and hence was the only exit point considered as a recipient within the Exit Capacity Substitution Methodology.

2. Donor selection

Substitution from individual donor NTS Exit Points was assessed by reducing the capacity at the most favourable NTS Exit Point that had Substitutable Capacity. The most favourable NTS Exit Point will normally be the furthest downstream NTS Exit Point from the recipient NTS Exit Point as measured by pipeline distance. This was the case in this substitution as Tatsfield is at an extremity of the system. The pipeline distance from the recipient exit point to Tatsfield was 54km the next closest point was Farningham (29km).

The exchange rates for a number of Donor points/Donor point combinations were examined: Tatsfield was 0.8546:1. A one to one ratio was found for donations from (i) Farningham then Shorne (ii) Farningham then Tatsfield and (iii) Shorne then Farningham.

3. Network analysis: Supply & demand scenario

The analysis starting point was NGG's 2017/18 gas year forecast 1 in 20 peak day demand network (Slow Progression) with Distribution Network (DN) demands at Sold levels as booked through the 2012 annual exit capacity allocations process. From this a South East (SE) Sensitivity network was created; Direct Connect demands in the SE area were increased to obligated levels, Isle of Grain supply was reduced to a calculated 5th percentile minimum (based on historic data) and flow was increased at St Fergus terminal (Least interactive Aggregate System Entry Point).

The SE Sensitivity network included network offtakes in the SE DN and those south of the connection between Feeders 3 and 5, this includes Luxborough Lane and Horndon (North Thames DN) which were increased to obligation as they were deemed to have a reasonable probability of being donors. Reinforcement projects are added to solve this network. Analysis was not continued beyond using Horndon as a donor point. It was shown that as the donor offtake moved north the exchange rate became less favourable.

4. A total of 5 Exit points in the SE sensitivity network were sold to obligated levels and set at these levels. For the remaining 14 exit points, DNs were set at the Sold level as booked through annual exit capacity allocations while Direct connect sites were set at the 1 in 20 peak day forecast.

5. Post substitution, the remaining minimum annual unsold level at Tatsfield is 37,198,388 kWh/d, the sold level is 192,774,633 kWh/d.

6. The donor/recipient offtakes are sufficiently far from compression/pressure reduction facilities that no significant parameter changes were required between the two substitution networks.

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