

Drax Power Station ExCS Informal Notice - Appendix 1

7th November 2018

Our Ref: 2018 – Drax Power Station ExCS

This Appendix relates to the proposed substitution of NTS Exit Capacity to Drax NTS Exit Point from Rawcliffe GDN (NE) and Saltend BPHP DC NTS Exit Points.

1. Recipient selection:

The PARCA application in respect of Drax power station for Enduring Annual NTS Exit (Flat) Capacity triggered the opening of a PARCA Exit Window. National Grid received one further application during this PARCA Window. The geographical area of the project is the North East, Yorkshire & Lincolnshire (region 3 in the Gas Ten Year Statement).

2. Donor selection:

Substitution from individual donor NTS Exit Points were assessed by reducing the capacity at the most favourable NTS Exit Points that had Substitutable Capacity. The most favourable donor NTS Exit Points will normally be the furthest downstream NTS Exit Points from the recipient NTS Exit Point as measured by pipeline distance.

For the purposes of the NTS Exit Capacity Substitution analysis, three (3) donor NTS Exit Points sites were analysed to determine the best exchange rate, as the only three sites in the area with substitutable capacity.

The exit points identified as potential donor sites were as follows:

| NTS Exit Point | Type | Obligated Capacity (GWh/d) | Unsold Capacity (at 1/07/23 (GWh/d)) |
|--------------------------------|-------------|-----------------------------------|---|
| Thornton Curtis (Killingholme) | DC | 91.00 | 44.40 |
| Rawcliffe | GDN (SE) | 5.05 | 1.81 |
| Saltend BPHP | DC | 0.84 | 0.04 |

The pipeline distances to the potential donor NTS Exit Points are:

| From | To | Pipeline distance (km) |
|-------------|--------------------------------|-------------------------------|
| Drax | Thornton Curtis (Killingholme) | 80.95 |
| | Rawcliffe | 4.33 |
| | Saltend BPHP | 71.05 |

Because of these analyses, the final NTS Exit Points selected were as follows;

| <i>NTS Point</i> | <i>Type</i> | <i>Recipient / Donor</i> |
|------------------|-------------|--------------------------|
| Drax | DC | Recipient |
| Rawcliffe | DN | Donor |
| Saltend BPHP | DC | Donor |

3. Network analysis: Supply & demand scenario

- Substitution analysis was conducted for the Gas Year 2023/24 as the first year the full capacity will be required by Drax power station.
- The analysis starting point is our 2023/24 1-in-20 peak day demand network. From this a North East sensitivity network is created, taking the most onerous credible demand levels for power stations (and other DCs), and GDN offtakes from sold and forecast levels for the North East zone as detailed in Section 5, and with North East supplies reduced to a credible minimum.
- The substitution network is created from a North-East sensitivity network, with the potential GDN NTS Exit Points in the area increased to obligation in accordance with the Methodology, as these were deemed to have a reasonable probability of being donors.
- Drax NTS Exit Point was set at the level of prevailing Obligated Exit Capacity in 2023 (0 kWh/d).

4. Enhanced Network

- An Enhanced Network was not required.

5. Exit points set at obligated, sold or otherwise:

- All North East DC sites are set at obligated level, with the remaining DCs being scaled back from the forecast so that the aggregate total matches the forecast total.
- Sites increased to their obligated level as part of the North-East sensitivity network are the potential donors (GDN offtakes) listed above; none of these sites had already been set to their obligated level.
- All other GDN NTS Exit Points were at Sold level as booked through the annual NTS Exit (Flat) Capacity application processes.

6. Flow adjustments:

- Flow adjustments were made in accordance with Paragraph 45 of the Methodology.
- Flow adjustments are detailed in Section 3 above, the substitution network demand is 5327 GWh/d, which is higher than the 1 in 20 peak demand (including sold capacity levels at GDN NTS Exit Points).

7. Summary of network analysis key parameter changes:

- No significant parameter changes were required between substitution networks.

8. Exchange Rate Validation

Thornton Curtis (Killingholme) had an exchange rate of greater than 3:1. Therefore only one sequence was possible as below

| <i>Donor NTS Exit Points</i> | <i>Capacity Donated (kWh/d)</i> | <i>Capacity Received (kWh/d)</i> | <i>Exchange Rate (Donor: Recipient)</i> |
|-------------------------------------|--|---|--|
| Rawcliffe | 1,816,952 | 1,806,952 | 1.0055:1 |
| Saltend BPHP | 44,105 | 40,000 | 1.1026:1 |