

Hynet HPP1&2(nr Hapsford on Feeder 4) ExCS Informal Notice - Appendix 1

27th May 2022

Our Ref: 2022 – Hynet HPP1&2(nr Hapsford on Feeder 4) ExCS

This Appendix relates to the proposed substitution of NTS Exit Capacity to Hynet HPP1&2(nr Hapsford on Feeder 4) from Hawarden (Shotton-aka Shotton Paper) (disconnected) DC, Shellstar (aka Kemira-not Kemira CHP), Weston Point (Rocksavage) DC, Weston Point, and Weston Point (Castner Kelner-aka ICI Runcorn) DC exit points.

1. Recipient selection:

The PARCA application is in respect of Hynet HPP1&2(nr Hapsford on Feeder 4) for Enduring Annual NTS Exit (Flat) Capacity. The request triggered the opening of a PARCA Exit Window, but no further PARCA applications were received.

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. Substitution from disconnected sites has been prioritised.

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

NTS exit Point	Type	Obligated Capacity (GWh/d)	Substitutable Capacity¹ (at 1st September 2024) (GWh/d)
Hawarden (Shotton-aka Shotton Paper) (disconnected)	DC	11.6	11.6
Roosecote Power Station (disconnected)	DC	11.3	11.3
Shellstar (aka Kemira-not Kemira CHP)	DC	16.2	4.5
Weston Point OT	DN	30.6	26.5
Weston Point (Rocksavage)	DC	40.8	40.8
Weston Point (Castner Kelner-aka ICI Runcorn)	DC	11.7	11.7

¹ NTS Exit Capacity required as a result of demand forecasts provided via Exit Capacity Planning processes as per Standard Special Condition A57 and the Exit Capacity Planning Guidance will not be Substitutable.

The pipeline distances to the potential donor NTS exit points are:

<i>From</i>	<i>To</i>	<i>Pipeline distance (km)</i>
Hynet HPP1&2(nr Hapsford on Feeder 4)	Hawarden (Shotton-aka Shotton Paper) (disconnected)	21.2
	Roosecote Power Station (disconnected)	241.8
	Shellstar (aka Kemira-not Kemira CHP)	3.5
	Weston Point OT	9
	Weston Point (Rocksavage)	9
	Weston Point (Castner Kelner-aka ICI Runcorn)	9

As a result of these analyses, the final NTS exit points selected were as follows;

<i>NTS Point</i>	<i>Type</i>	<i>Recipient / Donor</i>
Hynet HPP1&2(nr Hapsford on Feeder 4)	DC	Recipient
Hawarden (Shotton-aka Shotton Paper) (disconnected)	DC	Donor
Shellstar (aka Kemira-not Kemira CHP)	DC	Donor
Weston Point OT	DN	Donor
Weston Point (Rocksavage)	DC	Donor
Weston Point (Castner Kelner-aka ICI Runcorn)	DC	Donor

3. Network analysis: Supply & demand scenario

- Substitution analysis was conducted for the Gas Year 2025/26 as the first year the capacity will be required by Hynet HPP1&2(nr Hapsford on Feeder 4).
- The analysis starting point is our 2025/26 1-in-20 peak day demand network. From this a North West 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 West zone as detailed in Section 5, and with North West supplies reduced to a credible minimum.

- The substitution network is created from the North West sensitivity network, with the potential donor NTS exit points in the area increased to obligation in accordance with the Methodology.
 - Hynet HPP1&2(nr Hapsford on Feeder 4) is a new NTS exit point and as such has initially been set at 0 kWh/d.
4. Enhanced Network
- No enhancements necessary
5. Exit points set at obligated, sold or otherwise:
- All North West 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.
 - GDN offtakes that are potential donors as listed above are also increased to their obligated level, with scaling back at other exit points so that the aggregate total matches the forecast total.
 - All other GDN NTS exit points are at sold levels.
6. Flow adjustments:
- Flow adjustments were made in accordance with Paragraph 47 of the Methodology.
 - Flow adjustments are detailed in Section 3 above, and the substitution network demand is 5926 GWh/d.
7. Summary of network analysis key parameter changes:
- No significant parameter changes were required between substitution networks.
8. Exchange Rate Validation

The two disconnected sites in the North West with substitutable capacity available were assessed initially, as disconnected sites prioritised, but it was not possible to move one increment of 0.1 GWh/d from Roosecote Power Station without adversely effecting pressures in the recipients location. Exchange rates for two sequences without the disconnected sites were then assessed to establish the best exchange rate sequence overall. In the final best exchange rate solution, as the three Weston Point sites with substitutable capacity are equal distance from the recipient, producing the same exchange rate, the amounts donated from each have been pro-rated in line with available substitutable capacity. The amounts donated have also been split into phases in the Informal Notice as requested. A summary of the exchange rates tested are listed below in the following tables:

Sequence 1

<i>Donor NTS Exit Points</i>	<i>Capacity Donated (kWh/d)</i>	<i>Capacity Received (kWh/d)</i>	<i>Exchange Rate (Donor: Recipient)</i>
Hawarden (Shotton-aka Shotton Paper) (disconnected)	11,590,000	4,200,000	2.7595:1

Sequence 2

<i>Donor NTS Exit Points</i>	<i>Capacity Donated (kWh/d)</i>	<i>Capacity Received (kWh/d)</i>	<i>Exchange Rate (Donor: Recipient)</i>
Roosecote Power Station (disconnected)	100,000	No result	No result

Sequence 3

<i>Donor NTS Exit Points</i>	<i>Capacity Donated (kWh/d)</i>	<i>Capacity Received (kWh/d)</i>	<i>Exchange Rate (Donor: Recipient)</i>	<i>Total Exchange Rate (Donor:Recipient)</i>
Shellstar (aka Kemira-not Kemira CHP)	4,507,556	5,600,000	0.8049:1	0.8001:1
Weston Point (Rocksavage)	19,400,000	24,280,000	0.7990:1	

Sequence 4

<i>Donor NTS Exit Points</i>	<i>Capacity Donated (kWh/d)</i>	<i>Capacity Received (kWh/d)</i>	<i>Exchange Rate (Donor: Recipient)</i>
Weston Point (Rocksavage)	24,600,000	29,880,000	0.8233:1

Sequence 5 (Selected from above)

<i>Donor NTS Exit Points</i>	<i>Capacity Donated (kWh/d)</i>	<i>Capacity Received (kWh/d)</i>	<i>Exchange Rate (Donor: Recipient)</i>	<i>Total Exchange Rate (Donor:Recipient)</i>
Hawarden (Shotton-aka Shotton Paper) (disconnected)	11,590,000	4,200,000	2.7595:1	1.0742:1
Shellstar (aka Kemira-not Kemira CHP)	4,507,556	5,500,000	0.8196:1	
Weston Point (Rocksavage)	8,200,000	10,417,104	0.7872:1	
Weston Point OT	5,400,000	6,777,498	0.7968:1	
Weston Point (Castner Kelner-aka ICI Runcorn)	2,400,000	2,985,398	0.8039:1	