

## Progress Power ExCS Informal Notice - Appendix 1

17<sup>th</sup> December 2021

Our Ref: 2021 – Progress Power ExCS

This Appendix relates to the proposed substitution of NTS Exit Capacity to Progress Power from Barking (Horndon) DC exit point.

### 1. Recipient selection:

The PARCA application is in respect of Progress Power Station 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:

<b>NTS exit Point</b>	<b>Type</b>	<b>Obligated Capacity (GWh/d)</b>	<b>Unsold Capacity (at 1<sup>st</sup> September 2024) (GWh/d)</b>
Barking (Horndon) - disconnected	DC	58.59	56.09
Stanford Le Hope (Coryton)	DC	38.6	34.44
Middle Stoke (Damhead Creek-aka Kingsnorth Power Station)	DC	95.34	95.34
Horndon	DN	46.41	0.9
Medway (aka Isle of Grain Power Station- Not Grain Power)	DC	38.12	38.12

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

<i>From</i>	<i>To</i>	<i>Pipeline distance (km)</i>
Progress Power	Barking (Horndon) - disconnected	114.9
	Stanford Le Hope (Coryton)	118.96
	Middlestoke (Damhead Creek – aka Kingsnorth Power Station)	142.74
	Horndon	114.9
	Medway (aka Isle of Grain Power Station-Not Grain Power)	148.76

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>
Progress Power	DC	Recipient
Barking (Horndon) - disconnected	DC	Donor

### 3. Network analysis: Supply & demand scenario

- Substitution analysis was conducted for the Gas Year 2023/24 as the first year the capacity will be required by Progress Power.
- The analysis starting point is our 2025/26 1-in-20 peak day demand network. From this a South 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 South East zone as detailed in Section 5, and with South East supplies reduced to a credible minimum.
- The substitution network is created from the South East sensitivity network, with the potential donor NTS exit points in the area increased to obligation in accordance with the Methodology.
- Progress Power is a new NTS exit point and as such has initially been set at 0 kWh/d.

### 4. Enhanced Network

- Rewheel of 2 units at Hatton compressor
- 30MW new unit at Huntingdon compressor

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

- All South 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.

- 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 in the South East were at forecast undiversified levels, with the remaining GDN exit points scaled accordingly so that the aggregate total matches the sold total.

## 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 5936 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

Substitution from the disconnected Barking (Horndon) DC exit point was prioritised. Two other sites from the potential donor list above were assessed for reference. The respective exchange rates are listed below in the following tables:

### Sequence 1 (selected)

<b>Donor NTS Exit Points</b>	<b>Capacity Donated (kWh/d)</b>	<b>Capacity Received (kWh/d)</b>	<b>Exchange Rate (Donor: Recipient)</b>
Barking (Horndon) - disconnected	19,000,000	25,800,000	0.7364:1

### Sequence 2

<b>Donor NTS Exit Points</b>	<b>Capacity Donated (kWh/d)</b>	<b>Capacity Received (kWh/d)</b>	<b>Exchange Rate (Donor: Recipient)</b>
Medway (aka Isle of Grain Power Station – Not Grain Power)	15,000,000	25,800,000	0.5814:1

### Sequence 3

<b>Donor NTS Exit Points</b>	<b>Capacity Donated (kWh/d)</b>	<b>Capacity Received (kWh/d)</b>	<b>Exchange Rate (Donor: Recipient)</b>
Stanford Le Hope (Coryton)	18,100,000	25,800,000	0.7016:1