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**25th May 2018**

Our Ref: 2017 – Kings Lynn B Power Station- ExCS

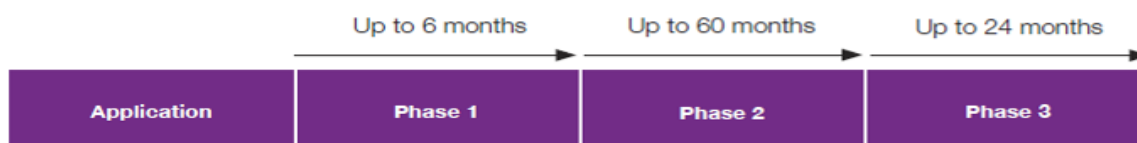
Dear Industry Colleagues,

### **Kings Lynn B Power Station ExCS Informal Notice (including exit Substitution & Baseline Revision)**

National Grid Gas plc (“National Grid”) received a Planning and Advanced Reservation of Capacity Agreement (PARCA) application on 6<sup>th</sup> June 2017. The application achieved competency<sup>9</sup> on 26<sup>th</sup> July 2017 for the previous owner of the site. The site was subsequently sold to a new owner. Following this, a revised PARCA application was received 17<sup>th</sup> November 2017. This new application achieved competency<sup>10</sup> on 27<sup>th</sup> November 2017. The application requested firm Enduring Annual NTS exit (Flat) Capacity<sup>11</sup> in excess of the prevailing baseline capacity level at the Kings Lynn B Power Station exit point. The application requested up to:

- 34,312,258 kWh/d from 1<sup>st</sup> April 2021
- 72,913,548 kWh/d from 1<sup>st</sup> April 2022

The PARCA application triggered Phase 1 of the PARCA process on 27<sup>th</sup> November 2017.



As part of Phase 1 works, National Grid completed network analysis to identify the most appropriate and robust solution to accommodate the capacity being requested. The Phase 1 process identified that the capacity request could be met by substitution of unsold exit capacity from a number of NTS Exit Points as follows;

- From Wragg Marsh (Spalding) (DC), Gosberton GDN (EM), Kirkstead GDN (EM), and Didcot (DC), from 1<sup>st</sup> April 2021.

This informal notice signifies the end of PARCA Phase 1 and the first opportunity for industry parties to raise any concerns around the method to meet the additional capacity request in this location.

### **Application for Capacity Release**

<sup>9</sup> As per Uniform Network Code, Transportation Principal Document, Section B – System Use and Capacity, para. 1.15.4.

<sup>10</sup> As per Uniform Network Code, Transportation Principal Document, Section B – System Use and Capacity, para. 1.15.4.

<sup>11</sup> Please note that this notice contains terminology relating to Exit Capacity which is used in the Licence and in the Uniform Network Code (“UNC”). Licence defined capacity terms are given in ***bold italics***.

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Registered Office: 1-3 Strand, London WC2N 5EH  
Registered in England and Wales, No 2006000

### *Substitution of Unsold Capacity from 1st April 2021*

As part of the Phase 1 works, National Grid completed network analysis to assess what impact the capacity had on the existing network.

In accordance with the Gas Transporter Licence<sup>12</sup>, substitution<sup>13</sup> of **Non-incremental Obligated Capacity** has been assessed and identified as being able to meet the Firm Enduring Annual NTS (Flat) Capacity requirements in excess of the prevailing baseline NTS Capacity at the Kings Lynn B Power Station exit point in full.

National Grid therefore proposes that from 1st April 2021:

- All of the additional Baseline NTS Capacity identified at the Kings Lynn B Power Station exit point can be met by substituting unsold NTS Baseline Capacity from Wragg Marsh (Spalding), Gosberton Kirkstead and Didcot exit points. (See table below).

### **Statement of proposed *Non-incremental* Capacity substitution in accordance with Special Condition 5G paragraph 6 (formerly paragraph 4(a) (iv) of Special Condition C8E) of the Licence:**

**For 1<sup>st</sup> April 2021**

<b><i>Recipient NTS Point</i></b>	<b><i>Donor NTS Exit Points</i></b>	<b><i>Capacity Donated (kWh/d)</i></b>	<b><i>Capacity Received (kWh/d)</i></b>	<b><i>Exchange Rate (Donor : Recipient)</i></b>
Kings Lynn B Power Station	Wragg Marsh (Spalding)	35,262,707	34,312,258	1.0277:1

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<sup>12</sup> Special Condition 5G (formerly paragraph 3(c) (i) of Special Condition C8E).

<sup>13</sup> During October 2015, the Authority approved the Exit Capacity Substitution and Revision Methodology Statement (the "Methodology") pursuant to Special Condition 9A.

For 1<sup>st</sup> April 2022

<i>Recipient NTS Point</i>	<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>
Kings Lynn B Power Station	Wragg Marsh (Spalding) (DC)	37,283,600	36,278,681	1.0277:1	0.9743:1
	Gosberton GDN (EM)	2,908,880	2,818,136	1.0322:1	
	Kirkstead GDN (EM)	351,297	334,505	1.0502:1	
	Didcot (DC)	63,930,198	67,794,484	0.9430:1	

### Baseline Modification Proposal

1<sup>st</sup> April 2021

<i>NTS Point</i>	<i>Type</i>	<i>Recipient / Donor</i>	<i>Current Baseline (kWh/d)</i>	<i>Proposed Baseline (kWh/d) 1<sup>st</sup> April 2021</i>	<i>Remaining unsold capacity (kWh/d) 1<sup>st</sup> April 2021</i>
Kings Lynn B Power Station	DC	Recipient	0	34,312,258	0
Wragg Marsh (Spalding)	DC	Donor	37,283,600	2,020,893	2,020,893

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1<sup>st</sup> April 2022

<i>NTS Point</i>	<i>Type</i>	<i>Recipient / Donor</i>	<i>Current Baseline (kWh/d) 1<sup>st</sup> April 2021</i>	<i>Proposed Baseline (kWh/d) 1<sup>st</sup> April 2022</i>	<i>Remaining unsold capacity (kWh/d) 1<sup>st</sup> April 2022</i>
Kings Lynn B Power Station	DC	Recipient	34,312,258	107,225,806	0
Wragg Marsh (Spalding)	DC	Donor	2,020,893	0	0
Gosberton	GDN (EM)	Donor	15,230,000	12,321,120	0
Kirkstead	GDN (EM)	Donor	1,210,000	858,703	0
Didcot	DC	Donor	137,760,000	73,829,802	73,829,802

Appendix 1 provides additional information regarding the proposal to demonstrate that National Grid has determined its proposals for capacity substitution in accordance with the Methodology.

I would therefore be grateful if you could acknowledge receipt of this written proposal and the date on which it was received.

If you require any further information, please contact myself or Mark Hamling, Gas Network Capability Manager on 01926 654276.

Yours sincerely,

**Craig Dyke**

Gas Network Development Manager  
Network Capability & Operations, Gas  
System Operator  
National Grid

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## Kings Lynn B Power Station ExCS Informal Notice - Appendix 1

25th May 2018

Our Ref: 2017 – Kings Lynn B Power Station ExCS

This Appendix relates to the proposed substitution of NTS exit Capacity to Kings Lynn B Power Station exit point, from Spalding, Gosberton, Kirkstead and Didcot exit points.

### 1. Recipient selection:

- The PARCA application in respect of Kings Lynn B Power Station for Enduring Annual NTS exit (Flat) Capacity was received through a PARCA exit Window which opened on Monday, October 2<sup>nd</sup> and closed on Friday, 24<sup>th</sup> November, triggered by Ferrybridge. Also during that Window, a further PARCA application was received from Peterborough EYE DN on 25<sup>th</sup> October 2017.

### 2. Donor selection:

Substitution from individual donor NTS exit points was 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, five donor sequences of NTS Exit Points were analysed to determine the best exchange rate.

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

<i>NTS Exit Point</i>	<i>Type</i>	<i>Obligated Capacity (GWh/d)</i>	<i>Unsold Capacity (GWh/d) 1st October 2020</i>
Wragg Marsh (Spalding)	DC	37.28	37.28
Gosberton	DN	15.23	2.91
Kirkstead	DN	1.21	0.35
Silk Willoughby	DN	3.53	1.33
Staythorpe	DC	82.00	82.00
Peterborough (Peterborough Power Station)	DC	23.28	20.48
Caldecott	DN	11.08	2.10
Caldecott (Corby Power Station)	DC	21.12	21.12
Market Harborough	DN	9.48	2.51
Tur Langton	DN	65.67	9.31
Blaby	DN	13.40	3.53
Austrey	DN	87.84	28.23

<i>NTS Exit Point</i>	<i>Type</i>	<i>Obligated Capacity (GWh/d)</i>	<i>Unsold Capacity (GWh/d) 1st October 2020</i>
Shustoke	DN	44.76	44.66
Royston	DN	2.70	0.33
Hardwick	DN	123.70	28.56
St. Neots (Little Barford)	DC	35.20	35.20
Whitwell	DN	161.87	57.41
Ipsden	DN	12.39	3.43
Ipsden 2	DN	15.68	4.01
Didcot	DC	137.76	137.76
Winkfield (NT)	DN	15.91	15.81
Winkfield (SE)	DN	106.26	15.82
Winkfield (SO)	DN	71.86	2.54
Braishfield A	DN	107.28	45.68
Braishfield B	DN	58.87	1.73
Matching Green	DN	92.34	41.87
Epping Green (Enfield Energy, aka Brimsdown)	DC	19.60	10.40
Luxborough Lane	DN	165.30	89.15
Horndon	DN	46.41	13.10
Barking (Horndon)	DC	58.59	58.59
Stanford Le Hope (Coryton)	DC	38.60	38.60
Shorne	DN	67.06	18.78
Medway (aka Isle of Grain Power Station, NOT Grain Power)	DC	38.12	5.35
Farningham	DN	135.12	48.50
Farningham B	DN	117.88	59.66
Tatsfield	DN	221.74	28.97
Peters Green	DN	151.86	39.90
Peters Green South Mimms	DN	197.18	32.30
Ilchester	DN	34.96	5.99
Mappowder	DN	47.68	11.27
Aylesbeare	DN	22.68	3.55
Kenn	DN	15.43	1.43
Coffinswell	DN	5.15	0.32
Lyneham (Choakford)	DN	50.30	9.88
Langage Power Station	DC	41.62	9.92

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

<i>From</i>	<i>To</i>	<i>Pipeline distance (km)</i>
Kings Lynn B Power Station	Wragg Marsh (Spalding)	40.10
	Gosberton	52.49
	Kirkstead	82.21
	Silk Willoughby	98.72
	Staythorpe	137.19
	Peterborough (Peterborough Power Station)	48.91
	Caldecott	82.65
	Caldecott (Corby Power Station)	87.68
	Market Harborough	99.07
	Tur Langton	101.28
	Blaby	116.63
	Austrey	158.10
	Shustoke	175.44
	Royston	153.65
	Hardwick	158.66
	St Neots (Little Barford)	106.57
	Whitwell	150.39
	Ipsden	205.27
	Ipsden 2	205.29
	Didcot	210.13
	Winkfield (NT)	234.29
	Winkfield (SE)	234.29
	Winkfield (SO)	234.29
	Braishfield A	285.82
Braishfield B	285.84	
Matching Green	186.30	
Epping Green (Enfield Energy, aka Brimsdown)	199.98	
Luxborough Lane	211.32	

<i>From</i>	<i>To</i>	<i>Pipeline distance (km)</i>
Kings Lynn B Power Station	Horndon	225.85
	Barking (Horndon)	225.85
	Stanford Le Hope (Coryton)	229.91
	Shorne	238.81
	Medway (aka Isle of Grain Power Station, NOT Grain Power)	259.73
	Farningham	253.33
	Farningham B	253.35
	Tatsfield	278.36
	Peters Green	156.50
	Peters Green South Mimms	156.52
	Ilchester	327.19
	Mappowder	356.17
	Aylesbeare	389.18
	Kenn	404.86
	Coffinswell	427.78
	Lyneham (Choakford)	467.44
Langage Power Station	467.44	

As a result of these analyses, the final NTS Exit Points selected were as follows;

**1<sup>st</sup> April 2021**

<i>NTS Point</i>	<i>Type</i>	<i>Recipient / Donor</i>	<i>Current Baseline (kWh/d)</i>	<i>Proposed Baseline (kWh/d) 1<sup>st</sup> April 2021</i>	<i>Remaining unsold capacity (kWh/d) 1<sup>st</sup> April 2021</i>
Kings Lynn B Power Station	DC	Recipient	0	34,312,258	0
Wragg Marsh (Spalding)	DC	Donor	37,283,600	2,020,893	2,020,893



1<sup>st</sup> April 2022

<i>NTS Point</i>	<i>Type</i>	<i>Recipient / Donor</i>	<i>Current Baseline (kWh/d) 1<sup>st</sup> April 2021</i>	<i>Proposed Baseline (kWh/d) 1<sup>st</sup> April 2022</i>	<i>Remaining unsold capacity (kWh/d) 1<sup>st</sup> April 2022</i>
Kings Lynn B Power Station	DC	Recipient	34,312,258	107,225,806	0
Wragg Marsh (Spalding)	DC	Donor	2,020,893	0	0
Gosberton	DN	Donor	15,230,000	12,321,120	0
Kirkstead	DN	Donor	1,210,000	858,703	0
Didcot	DC	Donor	137,760,000	73,829,802	73,829,802

In accordance with paragraph 62 of the methodology the individual donor NTS Exit Point to recipient NTS Exit Point exchange rate was determined and is as follows:

<i>Donor NTS Exit Points</i>	<i>Exchange Rate (Donor : Recipient)</i>	<i>Total Exchange Rate (Donor : Recipient)</i>
Wragg Marsh (Spalding)	1.0277:1	0.9743:1
Gosberton	1.0322:1	
Kirkstead	1.0502:1	
Didcot	0.9430:1	

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

- Substitution analysis was conducted for the Gas Year 2020/21 as the first year of the capacity will be required by Kings Lynn B Power Station and is also the first year Peterborough EYE DN has requested their capacity.
- The analysis starting point is our 2020/21 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 DN offtakes from sold and forecast levels for the South East exit 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 distribution network 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.

- Kings Lynn B Power Station NTS exit Point was set at the level of prevailing Obligated Exit Capacity in 2021 ( 0 kWh/d).
4. Enhanced Network
- No System enhancements for the substitution network were required.
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.
  - Sites increased to their obligated level as part of the South East sensitivity network are the potential donors (DN offtakes) listed above; none of these sites had already been set to their obligated level.
  - All other DN 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 6420.05 GWh/d which is higher than the 1 in 20 peak demand (including sold capacity levels at DN NTS Exit Points).
7. Remaining unsold NTS Exit (Flat) Capacity at the donor NTS Exit Points:

If substitution is effected as stated in this notice, the remaining unsold Annual NTS Exit (Flat) Capacity at the donor exit points is shown in the following tables.

**From 1<sup>st</sup> April 2021**

<i>NTS Exit Point</i>	<i>Type</i>	<i>Remaining unsold capacity (kWh/d) 1<sup>st</sup> April 2021</i>
Wragg Marsh (Spalding)	DC	2,020,893

**From 1<sup>st</sup> April 2022**

<i>NTS Exit Point</i>	<i>Type</i>	<i>Remaining unsold capacity (kWh/d) 1<sup>st</sup> April 2022</i>
Wragg Marsh (Spalding)	DC	0
Gosberton	DN	0
Kirkstead	DN	0
Didcot	DC	73,829,802

## 8. Summary of network analysis key parameter changes:

1. No significant parameter changes were required between substitution networks.

## 9. Exchange Rate Validation

In order to validate that the above donor list and the sequence of substitution provides the best exchange rate, three different donor sequences were assessed. These are listed, with their respective exchange rates, in the following tables:

### Sequence 1

<b>Recipient NTS Exit Point</b>	<b>Donor NTS Exit Points</b>	<b>Capacity Donated (kWh/d)</b>	<b>Capacity Received (kWh/d)</b>	<b>Exchange Rate (Donor : Recipient)</b>	<b>Total Exchange Rate (Donor : Recipient)</b>
Kings Lynn B Power Station	Tatsfield	28,967,450	28,547,797	1.0147:1	1.0136 : 1
	Farningham	48,496,593	47,746,966	1.0157:1	
	Farningham B	31,218,702	30,931,043	1.0093:1	

### Sequence 2

<b>Recipient NTS Exit Point</b>	<b>Donor NTS Exit Points</b>	<b>Capacity Donated (kWh/d)</b>	<b>Capacity Received (kWh/d)</b>	<b>Exchange Rate (Donor : Recipient)</b>	<b>Total Exchange Rate (Donor : Recipient)</b>
Kings Lynn B Power Station	Shustoke	44,660,000	17,991,379	2.4823 : 1	1.5416 : 1
	Austrey	28,234,297	11,595,194	2.4350 : 1	
	Market Harborough	2,514,018	1,436,500	1.7501 : 1	
	Caldecott (Corby Power Station)	21,120,000	12,622,520	1.6732 : 1	
	Caldecott	2,102,139	1,258,464	1.6704 : 1	
	Blaby	3,532,758	1,806,945	1.9551 : 1	
	Tur Langton	9,305,433	5,180,333	1.7963 : 1	
	Wragg Marsh (Spalding)	37,283,600	35,423,848	1.0525 : 1	
	Gosberton	2,908,880	8,062,306	0.3608 : 1	
	Kirkstead	351,297	333,330	1.0539 : 1	
	St. Neots (Little Barford)	13,288,295	11,514,987	1.1540 : 1	

**Sequence 3 (Selected)**

<i>Recipient NTS Point</i>	<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>
Kings Lynn B Power Station	Wragg Marsh (Spalding)	37,283,600	36,278,681	1.0277 : 1	0.9743 : 1
	Gosberton	2,908,880	2,818,136	1.0322 : 1	
	Kirkstead	351,297	334,505	1.0502 : 1	
	Didcot	63,930,198	67,794,484	0.9430 : 1	