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12th October, 2016
Our Ref: 2016 - Keadby 2 - PARCA

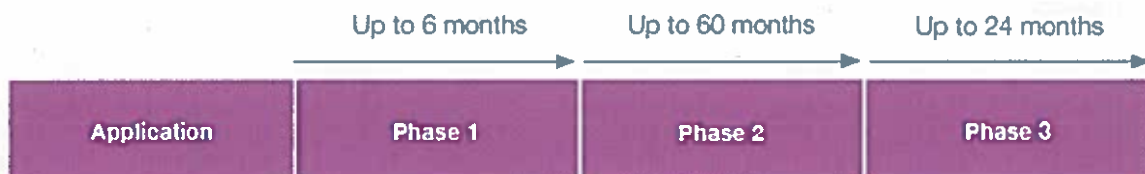
Dear Industry Colleagues,

Keadby 2 PARCA 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 29th March, 2016. The application achieved Competency¹ on 12th April, 2016. The application requested firm Enduring Annual NTS Exit (Flat) Capacity² in excess of the prevailing baseline capacity level at the Keadby offtake (in respect of Keadby 2 power station). The application requested up to:

- 42,518,400 kWh/d from 1st April, 2019

The PARCA application triggered Phase 1 of the PARCA process on 12th April, 2016.



As part of the Phase 1 works, National Grid completed network analysis to identify the most appropriate and robust solution to accommodate the Exit capacity being requested. The Phase 1 process identified that the Exit capacity request could be met by;

- Reserving ***non-obligated exit capacity*** up to the indicated value from 1st April, 2019 to 30th September, 2020.
- Reserving exit capacity at Keadby via the substitution of unsold exit capacity from Keadby Blackstart and West Burton exit point(s) in the vicinity of Keadby from 1st October, 2020.

The Exit capacity will be available for reservation from 12th October, 2016.

¹ As per Uniform Network Code, Transportation Principal Document, Section B – System Use and Capacity, para. 1.15.4.

² 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***.

The Exit capacity must be allocated to a nominated User by 1st October, 2018. Substitutable capacity is subject to capacity being allocated to a nominated User. The capacity will be registered, as requested by The PARCA Applicant, from 1st April, 2019. As a developer, The PARCA Applicant will identify a shipper prior to allocation.

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

If the Exit capacity is not allocated to a nominated User by 1st October, 2018, National Grid has the right to terminate the PARCA. If the PARCA is terminated then the proposed solution will not be progressed. Ofgem and other NTS users will be notified of allocation or termination with non-allocation.

Application for Exit Capacity Release

Substitution of Unsold Exit Capacity from 1st October, 2020

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

In accordance with the Licence³, substitution⁴ of **Non-incremental Obligated Exit Capacity** has been assessed and identified as being able to meet the Firm Enduring Annual NTS Exit (Flat) Capacity requirements in excess of the prevailing baseline NTS Exit Capacity at the Keadby NTS Exit Point in full.

National Grid therefore proposes that from 1st October, 2020;

- All of the additional Baseline NTS Exit Capacity identified at the Keadby exit point can be met by substituting unsold NTS Baseline Exit Capacity from Keadby Blackstart and West Burton NTS Exit Points (See table below).

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

Recipient NTS Exit Point	Donor NTS Exit Points	Capacity Donated (kWh/d)	Capacity Received (kWh/d)	Exchange Rate (Recipient : Donor)	Substitution effective date
Keadby 2	Keadby Blackstart	922,785	922,785	1 : 1	01/10/2020
Keadby 2	West Burton	41,924, 220	41,595,615	1 : 1.0079	01/10/2020
Total		42,847,005	42,518,400	1:1.0078	01/10/2020

³ Special Condition 5G (formerly paragraph 3(c) (i) of Special Condition C8E).

⁴ During October 2015, the Authority approved the Exit Capacity Substitution and Revision Methodology Statement (the "Methodology") pursuant to Special Condition 9A.

Baseline Modification Proposal:

NTS Exit Point	Type	Recipient /Donor	Current Baseline (kWh/d)	Proposed Baseline (kWh/d)	Remaining unsold capacity (kWh/d)
Keadby 2	DC	Recipient	0	42,518,000	0
Keadby Blackstart	DC	Donor	2,380,000	1,457,215	0
West Burton	DC	Donor	66,000,000	24,075,780	24,075,780

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

Substitution is subject to the capacity being allocated to a nominated User on 1st October, 2018 and the PARCA following through to completion. If for any reason the capacity is not allocated or the PARCA is terminated then substitution will not be required.

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 Jon Dutton, Gas Network Capability Manager on 01926 655 048.

Yours sincerely,



Craig Dyke
Gas Network Development Manager
Transmission Network Service
National Grid

Keadby 2 PARCA ExCS Informal Notice - Appendix 1

12th October 2016

Our Ref: 2016 - Keadby 2 - PARCA

This Appendix relates to the proposed substitution of NTS Exit Capacity from Keadby Blackstart and West Burton NTS Exit Points to Keadby NTS Exit Point.

1. Recipient selection:

The PARCA application in respect of Keadby 2 power station for Enduring Annual NTS Exit (Flat) Capacity triggered a PARCA Exit Window. During that PARCA Exit Window a further application was received in an exit zone that interacts with Keadby.

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 (5) 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 (at 1st October 2016)(GWh/d)</i>
PANNAL	DN	148.41	20.30
GOOLEGLASS	DC	1.62	1.62
KEADBYB	DC	2.38	0.92
WESTBURTON	DC	66.00	66.00
GANSTEAD	DN	23.15	6.29
TOWTON	DN	80.73	20.42
BURLEYBANK	DN	20.31	5.86
COTTAM	DC	19.30	19.30
BLYBOROUGH	DN	79.33	23.04
BRIGG	DC	16.89	15.29
BP SALTEND	DC	9.10	0.04
BALDEBSBY	DN	1.34	0.21
THORNTON CURTIS DN	DN	118.19	22.66

THORNTONCURTIS PS	DC	91.00	69.30
STALLINGBOROUGH	DC	68.01	15.31
WALESBY	DN	0.97	0.44

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

<i>From</i>	<i>To</i>	<i>Pipeline flow distance (km)</i>
Keadby	PANNAL	81.8
	GOOLEGLASS	32.86
	KEADBYB	0.02
	WESTBURTON	27.86
	GANSTEAD	77.21
	TOWTON	56.59
	BURLEYBANK	88.09
	COTTAM	28.83
	BLYBOROUGH	28.83
	BRIGG	42.69
	BP SALTEND	94.99
	BALDEBSBY	99.36
	THORNTON CURTIS DN	104.87
	THORNTONCURTIS PS	104.87
	STALLINGBOROUGH	117.92
WALESBY	129.33	

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

<i>NTS Exit Point</i>	<i>Type</i>	<i>Recipient /Donor</i>	<i>Current Baseline (kWh/d)</i>	<i>Proposed Baseline (kWh/d)</i>	<i>Remaining unsold capacity (kWh/d)</i>
Keadby	DC	Recipient	0	42,518,000	0
Keadby Blackstart	DC	Donor	2,380,000	1,457,215	0
West Burton	DC	Donor	66,000,000	24,075,780	24,075,780

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 Recipient : Donor</i>
Keadby Blackstart	1 : 1
West Burton	1 : 1.0079

3. Network analysis: Supply & demand scenario

- Substitution analysis was conducted for the Gas Year 2019/20 as the first year of the enduring exit capacity period for which substitution could be effected, based on our understanding of the customer's required timescales at that point in time.
- The analysis starting point is our 2019/20 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 DN offtakes from sold and forecast levels for the North East exit zone as detailed in Section 5, and with Easington supplies reduced to a credible minimum.
- The substitution network is created from the North East sensitivity network, with the distribution network NTS Exit Points bounded by the nearest upstream and downstream compressor stations Bishop Auckland and Hatton increased to obligation in accordance with the Methodology, as these were deemed to have a reasonable probability of being donors.
- Keadby NTS Exit Point was set at the level of prevailing Obligated Exit Capacity in 2019 (Zero).
- This substitution analysis was deemed valid for obligated capacity reservation from 1st October 2020, on the grounds that the sold / unsold capacity levels for the donor NTS exit points being considered were the same on both years.

4. Enhanced Network

System enhancements for the substitution network were as follows;

- None

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

- All North East Direct Connect sites are set at obligated level, with the remaining Direct Connects being scaled back from the balance sheet forecast so that the aggregate total matches the balance sheet forecast total.
- Sites increased to their obligated level as part of the North East sensitivity network are the potential donors (DN offtakes) listed above; none of these sites have already been set to their obligated level.
- All other DN NTS Exit Points are 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 5633 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 on 1st October, 2020, the remaining unsold Annual NTS Exit (Flat) Capacity at the donor exit points is shown in the following table.

<i>Donor NTS Exit Points</i>	<i>Type</i>	<i>Unsold capacity at donor exit points in kWh/d (Post-2019 Keadby capacity reservation)</i>
Keadby Blackstart	DC	0
West Burton	DC	24,075,780

8. Summary of network analysis key parameter changes:

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