

Barrow PARCA ECS Informal Notice - Appendix 1

18th February, 2016

This Appendix relates to the proposed substitution of NTS Entry Capacity from NTS Teesside ASEP to Barrow ASEP in respect of a PARCA application for additional capacity at Barrow ASEP.

1. Recipient selection:

Barrow ASEP was the only NTS ASEP where an application, via a PARCA, for Entry Capacity that exceeded the existing level of Baseline NTS Entry Capacity was received. As such, Barrow ASEP was the only NTS ASEP considered as a recipient within the Entry Capacity Substitution Methodology Statement v7.0 ("the Methodology").

2. Donor selection:

The recipient ASEP was the Barrow ASEP which is situated in the Northern Triangle. Consistent with the Methodology (para. 64) all within zone donor ASEPs were considered before out of zone donor ASEPs. Within zone ASEPs were Teesside, Glenmavis and St. Fergus. Substitution from individual donor NTS ASEPs was assessed by reducing the capacity at the donor ASEPs that had Substitutable Capacity. The most favourable donor NTS ASEPs will normally be the ASEP providing the lowest exchange rate. In the event of two or more donor ASEPs providing equal exchange rates then the donor ASEP nearest to the recipient ASEP was chosen.

The pipeline distances to the potential donor NTS ASEPs are:

<i>From</i>	<i>To</i>	<i>Pipeline flow distance/ km</i>	<i>Ordering</i>
Barrow ASEP	Teesside	260.99	Donor 1
	Glenmavis	304.30	Donor 2
	St. Fergus	555.28	Donor 3

The capacity of the donors considered for Substitution is:

<i>Potential donor NTS ASEP</i>	<i>Baseline Obligation 2020/32 (kwh/d)</i>	<i>Capacity considered for substitution Jan 2021/32 (Obligation less withheld from QSEC less max sold) (kWh/d)</i>
Teesside	445,090,000	356,621,575
Glenmavis	99,000,000	89,100,000
St. Fergus	1,670,700,000	1,413,513,896

The exchange rates for a number of donor combinations were examined.

<i>Donor(s)</i>	<i>Exchange Rate Donor : Recipient</i>
Teesside	1 : 1
St. Fergus	1 : 1
Glenmavis & other Donors within Northern Triangle	1 : 1

Analysis showed that the exchange rate between Barrow ASEP and the donor NTS ASEPs was always 1 : 1.

3. Network analysis

3.1. Supply & demand scenario

Analysis was conducted for 2020/21 as the first year that entry capacity substitution was required to meet the PARCA Applicant's requirement. The analysis starting point is our 2020/21 1-in-20 peak day demand network.

3.2. Within zone analysis

Considering each within zone Donor ASEP in turn starting with the closest according to pipeline distance, i.e. the Teesside ASEP, substitution was modelled by transferring flow from the Donor ASEP being considered to the Recipient ASEP, i.e. the Barrow ASEP, until the flow at the Recipient ASEP had increased by the quantity required to meet the PARCA Applicant's requirement, i.e. a new Obligation at Barrow ASEP of 493,010,000 GWh/d.

Full substitution was possible from Teesside and St. Fergus ASEPs with a 1 : 1 capacity exchange ratio, i.e. for a flow reduction of one unit at the Donor ASEP Recipient ASEP could increase by one unit.

Full substitution was not possible from the Glenmavis ASEP and further substitution was required from other ASEPs within the Northern Triangle. In all cases, a 1 : 1 exchange ratio was also achieved from all Donor ASEPs to the Recipient ASEP.

As the full quantity of additional capacity could be provided by within zone substitution with a capacity exchange rate of 1 : 1 the substitution process is deemed to be completed.

4. Enhanced Network

No network enhancements were required.