Long Term Non Firm Capacity
Options Summary

Purpose
The Planning Act (2008) extends planning timescales for NTS reinforcements; with total lead times extended beyond those defined in the current Gas Transporter Licence. National Grid is developing proposals to allow NTS Users access to the NTS prior to the completion of the network reinforcements required to support the release of the firm incremental capacity signalled by that User.

Following a request from the industry, National Grid NTS has developed six options to address this issue and these are summarised in this paper, along with any anticipated impacts on UNC, National Grid's NTS Licence, Systems etc. EU impacts have not been considered in this paper, given that the EU regulatory regime is not yet fully defined and so potential impacts cannot be determined to any reasonable degree of certainty.

The options summarised below include the two options previously proposed by National Grid NTS (NG NTS) as well as variants raised by industry during workgroup discussions. Each of the six options is a variation on one of two types of product:

- interruptible/off peak (1-3); or
- firm with buyback/alternative constraint management options (4-6).

Two options have been provided which use existing processes alongside the four new options to provide a comparison with what can be achieved in the 'current world' as opposed to those that would require change. These options have been designed with a view to minimising change to UNC, Licence and systems wherever possible.

At this stage, NG NTS has not specified a preferred option in order that an appropriate solution can be fully developed in conjunction with the industry.

General Assumptions

- Long Term Non Firm Capacity will only be released, at the discretion of National Grid NTS, where the following conditions have been satisfied:
  - A formal Incremental Firm Entry/Exit Capacity signal has been provided via an auction/application window or capacity has been reserved through an ARCA or PARCA by the user requiring Long Term Non Firm Capacity;
  - A bilateral agreement has been agreed e.g. PCA, ARCA or PARCA;
  - Relevant demonstration information, if required, has been provided;
  - Access to the NTS is required earlier than the Firm Capacity Delivery Date; and
  - A need for NTS reinforcement, requiring a Development Consent Order, has been identified (this could be met through NTS reinforcement or through contractual arrangements)

Please note that we will need to consider how the likelihood of curtailment or buyback (depending on the relevant option) is defined and communicated.

Options

1. **Existing Process**: Daily Interruptible Entry and/or Off-peak Exit capacity product
   - Release via the existing daily interruptible entry / off-peak exit capacity products
   - At entry NG NTS would guarantee the release of a quantity of Entry Capacity (capped at the requested incremental quantity). This quantity would be included in the discretionary component of the Daily Interruptible Entry Capacity available quantity calculation for agreed periods up until a date that is no later than the day before the incremental firm entry capacity effective date.
   - At exit the available quantity of Daily Off-peak Exit Capacity would increase when the MNEPOR is updated (upon signature of the NExA agreement) via the MNEPOR related

release component. If long term non firm capacity is required before the MNEPOR is updated and/or for days over and above 80% peak demand, NG NTS will release a guaranteed quantity of NTS Exit (Flat) Capacity (capped at the requested incremental quantity). This quantity will be included in the discretionary component of the Daily Off-peak Exit Capacity available quantity calculation for agreed periods up until a date that is no later than the day before the incremental firm exit capacity effective date.

- The released capacity would be available to all Users at a specific NTS Entry and/or Exit point.
- This capacity would be subject to existing curtailment criteria.

2. New Process: Long Term Interruptible Entry / Off-peak Exit capacity product

- Extends the release period of the current daily interruptible entry / off-peak exit products
    - Made available initially for a part Gas Year, upon agreement of the first release date, for a period up to the start of the next Gas Year (on a project by project basis), and then agreed annually thereafter in September for each subsequent Gas Year
    - Made available in monthly tranches using ad-hoc auctions/application windows
- Capacity is exclusive to the relevant User[1]
- User places bid(s) with a reserve price the same as the daily interruptible / off-peak products.

3. New Process: Long Term Interruptible Entry / Off-peak Exit capacity + cap on curtailment days

- As per option 2 with the following additions:
- Cap placed on the number of curtailment days based on incremental network analysis on a project by project basis.
- User places bid(s) with the reserve price set as a percentage of the prevailing firm actual price (exit) or firm MSEC reserve price (entry). For example, the reserve price for Gas Year Y could be based on the proportion of days that would not be curtailable using the following calculation:

$$\left(\frac{N_Y - x}{N_Y}\right)P_Y \text{, where:}$$

N_Y	=	the number of days in Gas Year Y
x	=	the max number of curtailment days allowed, and
P_Y	=	the prevailing firm actual price (exit) or firm MSEC reserve price (entry) for Gas Year Y.

- Where the calculated price is below 0.0001 p/kWh, the reserve price would be 0.0000 p/kWh.
- This pricing mechanism reflects the greater certainty provided by a capped number of curtailment days.
- No preferential curtailment priority would be given to this product; it would be curtailed with existing daily interruptible/off peak capacity products unless the agreed number of curtailment days have been utilised by NG NTS.
- Once the agreed number of curtailment days have been utilised, the product would be treated as firm capacity.
- In the event of a further constraint, NG NTS would take constraint management actions, which may include buying back the Long Term Non Firm Capacity that is treated as firm. This extra release of capacity that will be treated as firm capacity, could however, not only increase the likelihood of curtailment for interruptible/off-peak customers but also the likelihood of buybacks occurring, therefore also impacting upon existing firm users.

[1] The 'Relevant User' is the party providing the incremental signal via an auction/application window or who has reserved capacity through an ARCA or PARCA. If capacity has been reserved by a Reservation Party then they would need to nominate User(s) to be registered as holding, some, or all, of the reserved capacity. In this case the nominated User may be eligible to apply for Long Term Non Firm capacity.

4. Existing Process: Non-obligated Firm Capacity released with constraint risk managed using current arrangements

- Non-obligated Firm Capacity released, at NG NTS' discretion (both quantity and periods).
- Capacity release periods and quantities may not match customer requirements as they will be subject to analysis of what can be made available
- Current arrangements available for mitigating constraint risk, as detailed within the SMPS

5. New Process: Non-Obligated Firm Capacity with associated buyback options

- This option utilises the Non-Obligated Firm Entry/Exit Capacity product
    - Made available initially for a part Gas Year, upon agreement of the first release date, for a period up to the start of the next Gas Year (on a project by project basis), and then agreed annually thereafter in September for each subsequent Gas Year
    - Released in monthly tranches using ad-hoc auctions/application windows
- Capacity is exclusive to the relevant user
- Associated buyback option for all days on which the product is held (relevant user only)
- 'Pay as bid' pricing, to allow the customer to value the capacity and determine the cap of the buy back option exercise price, with a reserve price based on the prevailing firm actual price (exit) or firm MSEC reserve price (entry).
- Buyback price = zero option price + exercise price capped at the capacity price
- Demonstration requirements, as set out within the bilateral agreement, must be satisfied prior to release of Long Term Non Firm Capacity.

6. New Process: Non-Obligated Firm Capacity with buyback options tendered for at relevant locations

- As per Option 5, but the buyback option tender would be open to all parties at the same and/or neighbouring sites to participate; not just the relevant User. The relevant User would be required to place a bid in the option tender under the terms of the bilateral agreement.

Comparison of Options

	1: Daily Interruptible / off peak	2: Long Term Interruptible /off peak	3: Long Term Interruptible /off peak + cap on curtailment	4: Non-Ob Firm + existing constraint management actions	5: Non-Ob Firm + buyback	6: Non-Ob Firm + buyback tendered to user & other parties
Release timescales	No change, as existing product and process	Each annual release would be in September to fit with existing auction/application window processes[2]	Same as 2	No change, as existing product and process	Same as 2	Same as 2
Effect on UIOLI calculations	Use of extra capacity could reduce the UIOLI quantity available in daily auctions	Same as 1	Same as 1	Same as 1	Same as 1	Same as 1
Effect on MNEPOR related release (exit only)	No effect	No effect	No effect	Release of extra capacity could reduce the level of MNEPOR related release available for daily off peak auctions	Same as 4	Same as 4
Capacity Reserve price	No change, as existing product and process	Reserve price as per existing daily interruptible/off-peak products	Reserve price as per MSEC reserve (entry) or the actual prices (exit) for the relevant gas year and location adjusted to account for the cap on the number of curtailment days	No change, as existing product and process	Reserve price as per MSEC reserve (entry) or the actual prices (exit) for the relevant gas year and location	Same as 5

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Capacity pricing mechanism	No change, as existing product and process	Reserve price, as per existing interruptible/off-peak products	Same as 2	No change, as existing product and process	Reserve price set allowing the customer to value the capacity	Same as 5
Remuneration for curtailment / buyback	None	None	For constraints up to cap on curtailment days: None For constraints beyond cap on curtailment days: Remuneration determined dependent on actions taken as per SMPS (which may include buyback of capacity)	Determined in the event of a constraint management action - dependent on actions taken as per SMPS	Buyback Option Price = 0p/kWh Buyback Exercise Price capped at the price paid for the capacity	Same as 5
Merit Order (curtailment / buyback)	No effect as existing product and process	Same priority as existing daily interruptible/off-peak products	For constraints up to cap on curtailment days: Same as 2 For constraints beyond cap on curtailment days: Same as 5	As per existing constraint management tools	As per existing buyback order rules The value the customer has placed on the capacity could influence the likelihood that their buyback option will be exercised.	Same as 5

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Certainty	Required quantity guaranteed to be released (via bilateral agreement) but no certainty of allocation as open to market. No certainty of availability on the day as subject to curtailment.	Certainty of capacity allocation to specific User.	Certainty of capacity allocation + some certainty of availability (due to cap on curtailment days)	Certainty of availability upon allocation However, capacity release periods and quantities may not fully match customer requirements as released at NG discretion	Certainty of capacity allocation and increased certainty of availability (due to order of constraint management actions)	Same as 5 but with potential for complete certainty of availability where another user wins the buyback option tender
Open to market?	Yes, fully open to market as existing product and process	No, restricted to relevant user	No. restricted to relevant user	Yes, fully open to market as existing product and process	No, Capacity & Buyback contract restricted to relevant user	Capacity restricted to relevant user, but buyback contract open to other market users.
Customer processes	Required to participate in daily capacity auctions	Only required to buy capacity annually	Same as 2	Capacity can be obtained for multiple gas years in one auction/application window	Only required to buy capacity and agree buyback contract annually	Same as 5
Capacity profiling	Daily capacity profiling	Monthly capacity profiling	Monthly capacity profiling	Monthly capacity profiling at entry Annual capacity profiling at exit	Monthly capacity profiling	Monthly capacity profiling

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Licence Impact – depends on RIIO also which may change relevant parts of the licence and incentive schemes etc	No	May need changes to product definitions in licence	Same as 2	No	Possibly – Asymmetrical cost and revenue sharing factors at exit. If estimated cost impact for NG NTS is high, then licence changes maybe required	Same as 5
UNC impact	No – we would manage through defining the discretionary release criteria and through the bilateral contracts	Yes - New auction process and product	Yes - New auction process and product, plus likely changes to charging methodology	No	Minimal - due to use of existing products and mechanisms	Same as 5
Systems Impact	No	Additional LT Off-peak application window at exit required Systems testing likely to be required in order to determine whether existing functionality can be used for all system requirements for this option	Same as 2 The ability to treat Long Term Non Firm capacity as firm capacity once curtailment days have been exhausted may require system changes	No	Variable pricing[3] for firm exit capacity products will be required Systems testing likely to be required in order to determine whether existing functionality can be used for all system requirements for this option	Same as 5

[3] Currently Exit Application Windows are set up with a Fixed Price meaning that a User cannot enter their own value for their capacity request. By introducing Variable Pricing we mean that functionality will be required to allow a Reserve Price to be set and to allow Users to enter their own price as part of their request subject to this reserve.