



Rough Order Magnitude (ROM) Request

Change Reference Number: XRN5278

Please send completed form to: <mailto:box.xserve.portfoliooffice@xserve.com>

Section A: Change Details	
Change Title	Change to the Within Day Firm Capacity Product
Will the Change impact the UNC (YES / NO)	Yes
MOD Reference (if raised)	N/A
Contact Details of Person Requesting the ROM	
Contact Name	Rosannah East
Contact Email	rosannah.east@nationalgrid.com
Contact Phone	07813 726272
Section B: Xserve Acknowledgement and Business Analyst Contact Details	
(Xserve CIO Office will add)	
ROM Received Date	16/11/2020
ROM Response date	04/12/2020 (as agreed with National Grid)
Business Analyst Name	Hannah Reddy
Business Analyst Email	Hannah.reddy@xserve.com
Business Analyst Phone	0121 229 2226

Rough Order Magnitude (ROM) Response

Type of ROM Evaluation
<i>Initial Assessment for Potential Code Modification</i>
The Proposed Change (Xoserve's understanding of the Modification)
<p>Following the new charging regime implementation effective from 01/10/20, it has become more expensive for Shippers to book capacity on the NTS. As a result, Shippers would like a more flexible firm capacity product for within day bookings to enable them to match their capacity bookings and flows more closely.</p> <p>On exit, the current firm within day product doesn't allow Shippers to quickly adjust bookings according to changes in demand. There are only 5 allocation times in the day (compared to hourly allocations running from 7am-2am on entry) and the last allocation is at 1am (compared to 2am on entry). Additionally, whilst the last allocation time on exit is at 1am, the bid window closes at 12am which means Shippers are unable to submit requests within that last hour. Having the extra hour (on both entry and exit) would enable shippers to balance their portfolio more efficiently at the end of the gas day. There is also a request to run additional allocations at 3am on both exit and entry, with the bid window running up until the full hour before that allocation if possible.</p> <p>To meet the demand over flexibility from Shippers, could you please cost the system impacts for the following two options:</p> <p><u>Option 1</u></p> <p>On exit:</p> <ul style="list-style-type: none"> • Provide hourly allocations throughout the day on exit, as is the case on entry (7am till 2am), extend to 3am if possible • Extend the bid/request window to run up until full hour before allocation time (either until 1.59am or 2.59am) <p>On entry:</p> <ul style="list-style-type: none"> • Provide another allocation at 3am • Extend the bid/request window until 2.59am (or 1.59am if 3am allocation is not possible) <p>If providing extra allocation/extending bid/request window isn't possible, please provide a quote for hourly allocations on exit only.</p> <p><u>Option 2</u></p> <p>On exit:</p> <ul style="list-style-type: none"> • Provide more allocations at the end of the gas day, until 3am if possible but at least until 2am if not. • Extend the bid (request) window to run up until the full hour before allocation times (either until 1:59am or 2:59am depending) <p>On entry:</p>

- Provide another allocation at 3am, with the bid window running up until the full hour

Xoserve's understanding is:

Currently the frequency of the allocations for the within day Exit Capacity auctions is lower than the equivalent Entry Capacity auction. There is also a difference in the timing of the last allocation.

National Grid would like to:

- Increase the frequency of the within day Exit Capacity auction allocation process to hourly
- Extend the timing of the last allocation of both Entry and Exit Capacity auctions such that both occur ideally at 3am however if that is not feasible then extend to 2am
- Extend the bid/request window to align with the last allocation such that it closes 1 minute before the allocation starts

The first version of this ROM considered the two options provided by National Grid and provided an additional recommended option.

Subsequently Mod0759 Enhancements to NTS Within-Day Firm Entry and Exit Capacity Allocations has been raised containing the following requirements:

- Introduce hourly allocations for Exit Capacity
- Allow additional NTS Entry and Exit Capacity allocation at 02:00
- Extend the NTS Entry and Exit Capacity bid invitation windows up until the time of the last allocation
- Introduce a 30-minute Capacity Allocation Period for NTS Exit Capacity.

Following submission of the ROM response further discussions have taken place and National Grid have raised additional requirements to be considered alongside Mod0759. The options now being considered are:

Option A

- Requirements as per Mod0759

Option B

- Requirements as per Mod0759
- National Grid to have the ability to know upfront what quantities are 'waiting' to be released in terms of obligated and non-obligated capacity on both Entry and Exit i.e. National Grid would like Gemini to recognise when an ASEP or Offtake has sold out of obligated baseline then present to the user, prior to allocation, non-obligated requests (in a form of new report or screen) for assessment or release

Option C

- Requirements as per Mod0759
- Automatic release of all obligated/non-obligated bids – an On/Off Switch option
 - a. On = all obligated and non-obligated bids are automatically allocated (unconstrained system) subject to a threshold/parameter which National Grid can set up-front. However, a new Gemini report would be required so that GNCC can visualise non-obligated bids prior to allocation for awareness and logging
 - b. Off = non-obligated bids are held for deeper assessment, using the new Gemini report, with the user selecting which bids (offtake level or zonal) which can be processed or not (in a forecast or actual constraint scenario). Parameters for 'off' option will need to be determined.

Option D

- Requirements as per Mod0759
- Capacity Restrictions - If put in place, these should roll over to the next auction on Exit (as per currently Entry)

Option E

- Requirements as per Mod0759
- When bid processing automation is set to 'off' where non-obligated bids were placed; National Grid would still like the obligated bids to be processed (as on Entry) rather than them pausing the auction as currently

Change Impacts**General Impacts to Xoserve and External Parties:****Xoserve:**

- Timings of the allocation process will need to be amended within Gemini and Gemini Exit

External Parties:

- No system impacts expected.
- Shippers will have greater flexibility around submission of bids/requests for within day auctions

External Interface Impacts (Changes to Screens, Portals, Files, Permitted Values, etc.)**NGIT interfacing systems:**

- There will be an increase to the frequency of the Entitlement data and Allocated BID data interface file to MIPI and GCS systems

Impacts to Gemini System:**For All Options****Gemini and Exit System Impacts:**

1. Change required to the WDDSEC and WDDNEX MOS Interim Bid window to allow shippers to place bids during the extended window.
2. Change required to the WDDSEC and WDDNEX MOS process window to allocate the bids during the extended window.
3. Schedule and code changes required to the Within Day Allocation batch jobs in Entry and Exit.
4. Impacts to the Rollover and Bid Reject bids batch jobs that are scheduled between 2:00 and 3:00
5. Impacts to the March and October clock change activities (jobs that are scheduled between 2:00 and 3:00 AM).
6. Impacts to the hourly bid reduction job in Entry and Exit Capacity.

Additional Impacts Associated with the various options:

Option B

1. New Bid Assessment live Internal report will be introduced in both Gemini and Exit

Option C

1. Code change required to 'Product Info MoS' functionality and Allocation algorithm
2. New Bid Assessment live Internal report will be introduced in Exit Only

Option D

1. Code change required to 'Product Info MoS' functionality and Allocation algorithm

Option E

1. Code change required to 'Product Info MoS' functionality and Allocation algorithm

Impacts UKL Manual Appendix 5b:

None expected

DSC Service Areas Impacted:

Service Area 20: UK Link Gemini System Services

Costs and Timescales**Change Costs (implementation):****Option A**

An enduring solution will cost at least **£95,000**, but probably not more than **£130,000** to implement.

Option B

An enduring solution will cost at least **£110,000**, but probably not more than **£145,000** to implement.

Option C

An enduring solution will cost at least **£115,000**, but probably not more than **£150,000** to implement.

Option D

An enduring solution will cost at least **£110,000**, but probably not more than **£145,000** to implement.

Option E

An enduring solution will cost at least **£110,000**, but probably not more than **£145,000** to implement.

Change Costs (on-going):

The change is not expected to increase ongoing running costs.

Timescales:

This change would need to be prioritised through the Change Management Committee alongside other changes within Xoserve's planned Gemini programme.

Please note a lead time of 3 months for startup/sanction/mobilisation should be considered though there is the potential for this to be shortened subject to the delivery mechanism and availability of resources.

Option A

The high-level estimate to develop and deliver this change is approximately 10 to 12 weeks for Analysis through to Post Implementation Support.

Option B

The high-level estimate to develop and deliver this change is approximately 12 to 14 weeks for Analysis through to Post Implementation Support.

Option C

The high-level estimate to develop and deliver this change is approximately 12 to 14 weeks for Analysis through to Post Implementation Support.

Option D

The high-level estimate to develop and deliver this change is approximately 12 to 14 weeks for Analysis through to Post Implementation Support.

Option E

The high-level estimate to develop and deliver this change is approximately 12 to 14 weeks for Analysis through to Post Implementation Support.

Assumptions:

- No changes to the Bid allocation flow time in Entry and Exit systems.
- Connected testing with NGIT is not required
- An allowance of 2 weeks for UAT has been included in the estimated timescales
- Costs are high level, based on high level analysis and assumed requirements
- This ROM is based on the Gemini functionality currently in Production and does not consider any functional changes being introduced by inflight projects
- Change can be delivered using environments from the existing Gemini test estate
- User Trials is not in scope
- This ROM assumes the solution will be delivered as a standalone project

Additional Option Specific Assumptions:**Option C**

- Partial allocation using the highest price mechanism

Option E

- Partially allocated bids will not automatically rollover into next auction

Dependencies:

- Implementation of the change is dependent on timely approval of the associated UNC modification
- Availability of National Grid business resources to support delivery

Constraints:

- If the intention is to deliver this during 2021 then this change would need to be considered alongside the wider Gemini change programme including existing inflight projects:
 - Gemini System Enhancements
 - NOCC readiness for October 2021
 - CSSC programme

Observations:

None identified

Document Version History

Version	Status	Date	Author(s)	Summary of Changes

Template Version History

Version	Status	Date	Author(s)	Summary of Changes
2.0	Approved	22/05/18	Steve Ganney	Minor changes implemented