

## Constraint Management on the NTS



September 2013

## Agenda

1. Capacity Strategy Objectives
2. What Constitutes a Constraint
3. Monitoring the Network
4. Short Term Flexibility Restriction Notice
4. Scalebacks and Restoration
5. Locational Energy Actions
6. Firm Capacity Buybacks
7. Summary

# Constraint Management Strategy Objectives

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## Managing **Financial Risk & Reward**

- To manage the constraint with minimum costs to the community
- To use market based mechanisms to manage constraint situations whenever possible

## Maintaining **Transporter Reputation**

- Ensuring UNC and Licence compliance
- Where actions are taken they are consistent and auditable and any Forecasting / Capability Assessments are repeatable

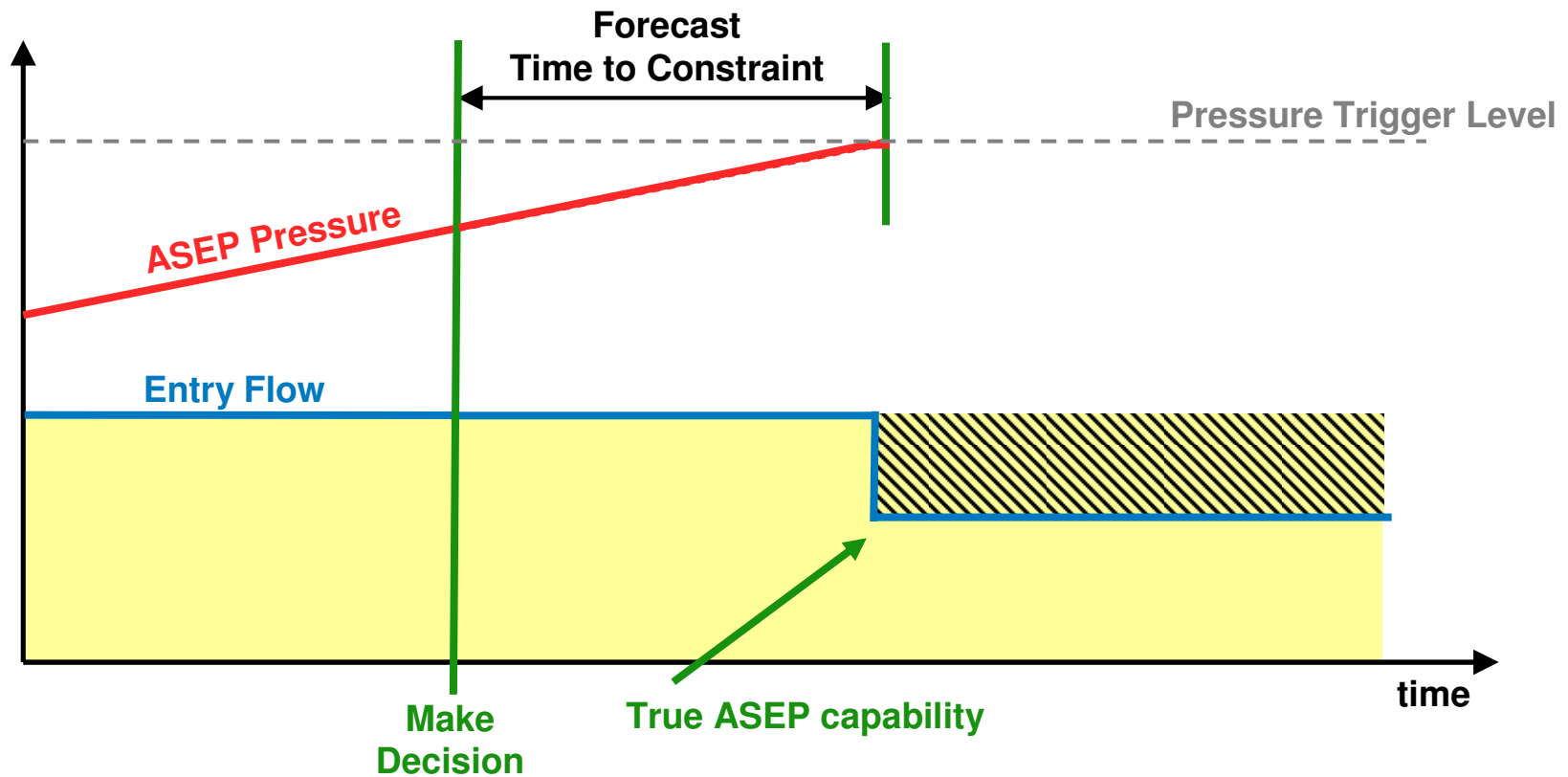
## Optimising **Customer Service**

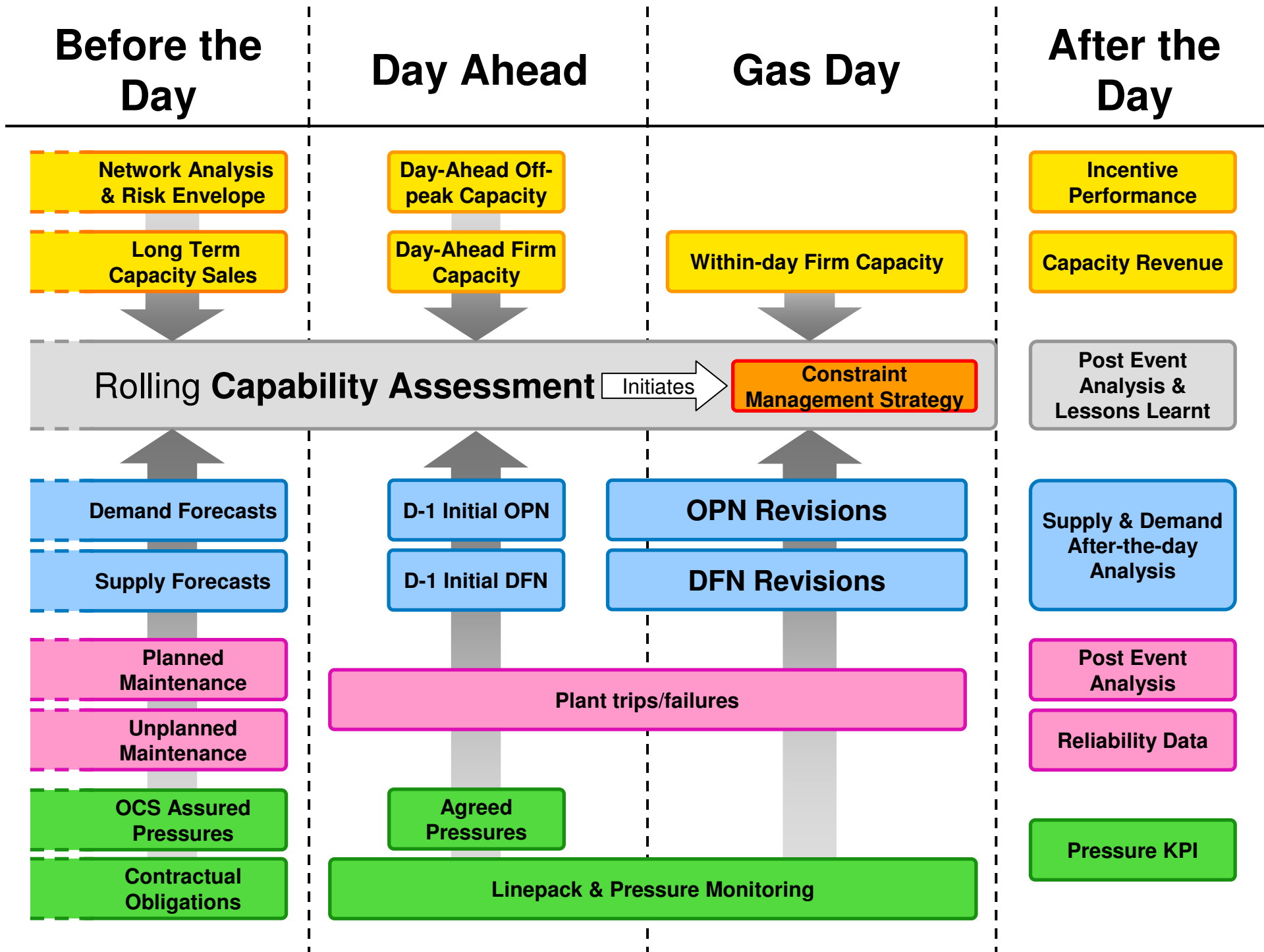
- Ensuring Users can offtake gas as per ALL contractual and capacity obligations
- Minimising the impact on Users when taking actions

## Driving **Continual Improvement** in Processes

- Understanding lessons learned to improve operating efficiency
- Feedback to NTS Users to drive OPN/Nom forecasting improvements

# Entry Constraint Scenario





# System Operator Actions

## Overview

Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity
<p>Reconfigure Network</p> <p>Optimise Compressor Fleet</p> <p>Manage Outages</p>	<p>Agree Pressures (DNO Only)</p> <p>Flow Swaps (DNO Only)</p> <p>Enforce Contractual Offtake Rules</p> <p>Scaleback Capacity (Entry Interruptible &amp; Exit Off peak)</p>	<p>National Energy Actions</p> <p>Locational Energy Actions</p> <p>Capacity Surrender</p> <p>Offtake Flow Reductions</p> <p>Initiate Constraint Management Agreements</p>	<p>Operating Margins</p> <p>Terminal Flow Advice (Entry)</p> <p>Critical Transportation Constraint</p> <p>Gas Deficit Emergency</p>
<p><b>Information Provision (MIPI / Website / Gemini)</b></p>			

# System Operator Actions

## ANS Notifications & Requests

Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity
<p>Reconfigure Network</p> <p>Optimise Compressor Fleet</p> <p>Manage Outages</p>	<p>Agree Pressures (DNO Only)</p> <p>Flow Swaps (DNO Only)</p> <p><b>Enforce Contractual Offtake Rules</b></p> <p><b>Scaleback Capacity (Entry Interruptible &amp; Exit Off peak)</b></p>	<p>National Energy Actions</p> <p><b>Locational Energy Actions</b></p> <p><b>Capacity Surrender</b></p> <p><b>Offtake Flow Reductions</b></p> <p>Initiate Constraint Management Agreements</p>	<p>Operating Margins</p> <p>Terminal Flow Advice (Entry)</p> <p>Critical Transportation Constraint</p> <p><b>Gas Deficit Emergency</b></p>
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# Short Term Flexibility Restriction Notice



## What is a Short Term Flexibility Restriction Notice (STFRN)?

- A notice issued via ANS to inform NTS users within an NTS Exit Zone(s) of the increased likelihood of OPN rejection.
- Issuing a Flex Restriction Notice will not, in most constraint scenarios, resolve a forecast or actual constraint by itself.
- It is designed to limit the release of NTS flexibility in excess of contractual obligations, where this would otherwise exacerbate a potential constraint.

## Applicable to?

A Flexibility Restriction Notice is applicable to all NTS offtakes. However, it is only used if the release of flexibility would drive an Operation Balancing requirement. NTS Flexibility requests are monitored via the rules below.

### 1. Flex Capacity Check (DN Offtakes Only)

Requests in excess of OCS or prevailing flex entitlements, whichever is greater at the time of the Flexibility Restriction Notice.

### 2. Revised OPN Notice Periods (applicable to all NTS Offtakes)

Offtake flow rate changes with lesser periods of notice than contractually specified.

## Communications issued via ANS

**Issue Notice:** Please be aware that based on information submitted to National Grid NTS, there is an increased likelihood that OPN requests for additional short term flexibility may not be accommodated in NTS Exit Zones (xxx)

**Lift Notice:** Further to the message issued on DD/MM/YYYY [include the time if it is issued and lifted on the same day], please be aware that the previously identified risk associated with the release of additional short term flexibility is no longer present in the NTS Exit Zones (xxx).



# Scaleback and Restoration

## When

- National Grid may scaleback up to 100% of Interruptible NTS Entry Capacity / Off-peak NTS Exit (Flat) Capacity in areas of the NTS impacted by a potential constraint. This is capacity users have brought in the DISEC or DONEX auctions.
- Scaleback can occur as soon as a constraint has been forecast.
- Scaleback is available at any time following allocation at 15:00 D-1.

## Notice for Entry

Scalebacks carried out within the gas day will be effective from the next hour bar + 1 e.g. from 12:00 if scaled back at 10:30.  
Users will therefore always have at least 60 minutes notice.

## Notice for Exit

A minimum of 4 hours notice will be provided before the scaleback takes effect for Exit constraints.

## Communications

- The following ANS message will be issued:

*National Grid is scaling back Interruptible Entry Capacity/ Off-peak Exit Capacity at the following ASEP(s)/within NTS Exit Zone(s) XX for Gas Day DDMMYY, effective time HH:MM with an ICF / OCF of X.*

- The ICF (Entry Interruptible Curtailment Factor) OCF (Exit Off-peak Curtailment Factor) can take one of the following values:

ICF / OCF = 1 → No Scaleback (i.e. 100% Interruptible / Off-peak capacity available)

ICF / OCF = 0 → Total Scaleback (i.e. 0% Interruptible / Off-peak capacity available)

## How will you know?

Details of specific scalebacks can be viewed in the following Gemini and Gemini Exit screens:

*Home > Constraints > Constraint/ Restoration History*

## User next steps

- Any Users affected by the scaleback action are expected to manage their nominations in line with their (reduced) capacity entitlements in order to avoid overrun charges.
- Users can view their original and net scaled capacity rights in the following screens:

**Entry:** *Gemini > Product > Entitlements – Net*

**Exit:** *Gemini Exit > Publish > Reports > User Reports > Entitlement Report*

## Restoration

•If NTS conditions change so that the forecast constraint has been resolved then any scaled Interruptible/Off-peak Capacity may be partially or fully restored. All restorations are applicable from the start of the next hour bar.

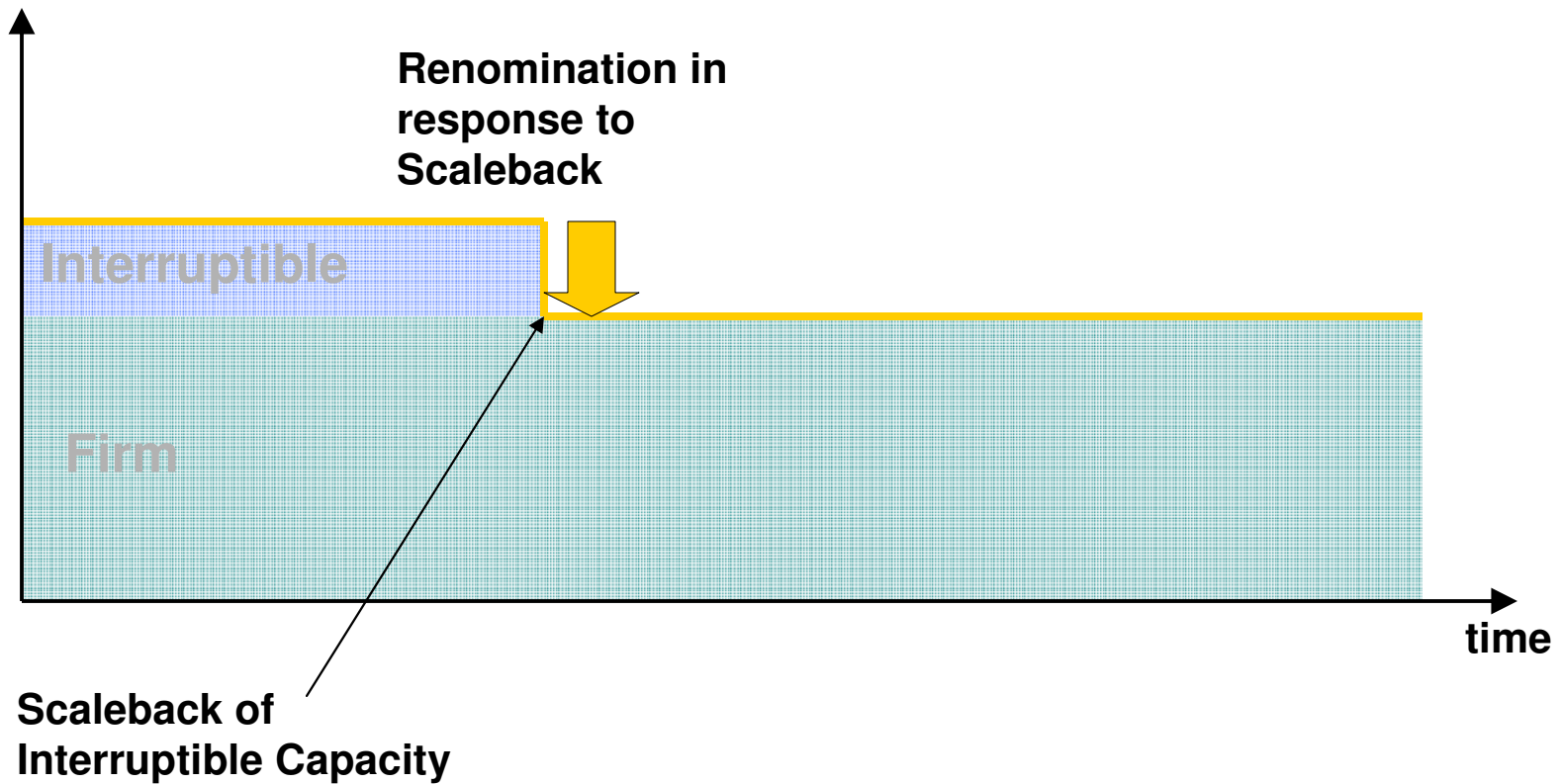
•The following ANS message will be issued:

*National Grid is restoring Interruptible Entry Capacity / Off-peak Exit Capacity at the following ASEP (s) / within NTS Exit Zone(s) XX for Gas Day DDMMYY, effective time HHMM with an ICF / OCF of X*

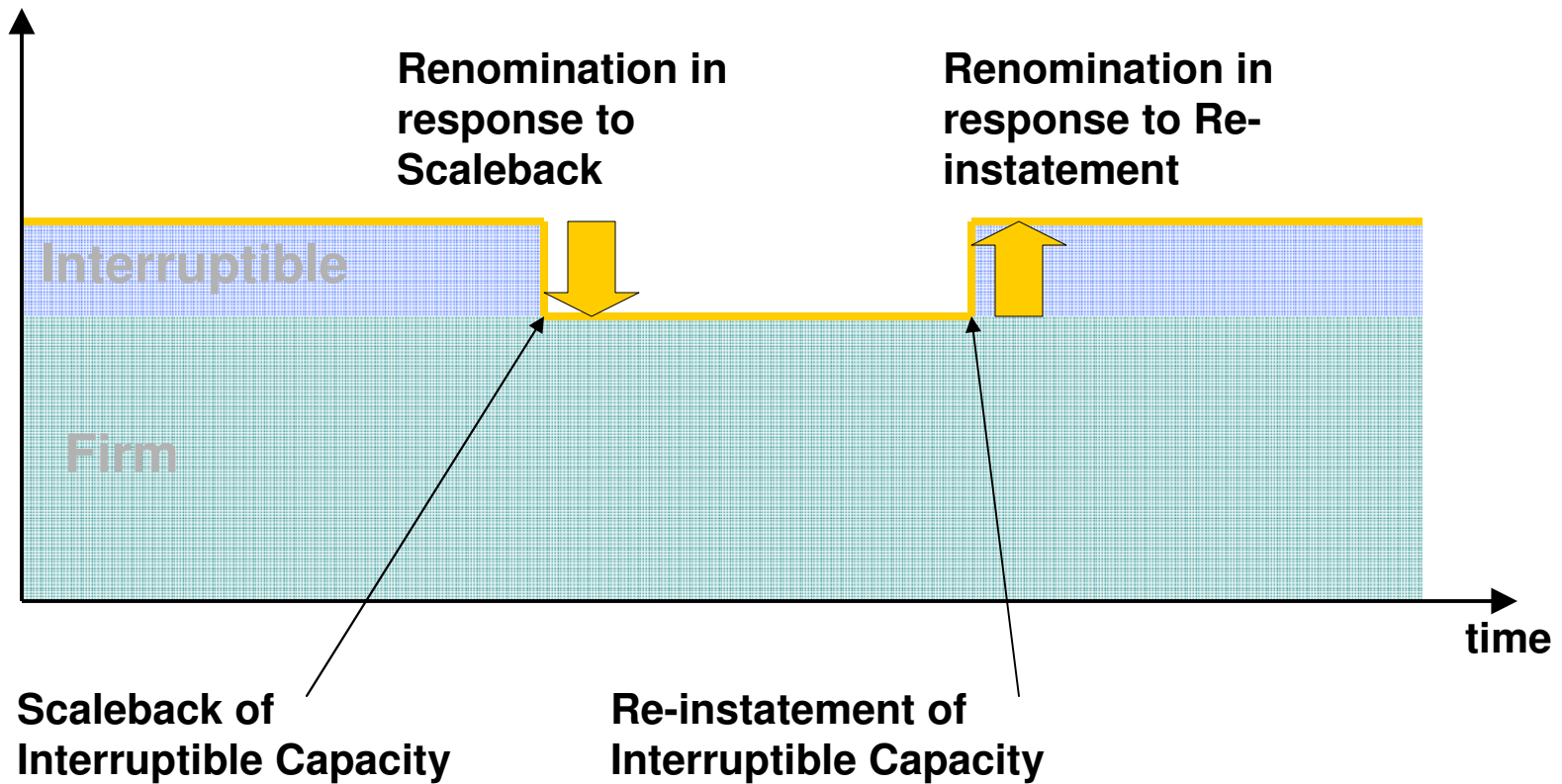
•Interruptible / Off-peak Capacity can be scaled back and restored multiple times as required throughout a gas day.

# Scaleback of Interruptible Capacity

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# Restoration of Interruptible Capacity



## When

National Grid may trade gas at specific NTS Entry and Exit locations in the management of NTS constraints. Locational Energy Actions will increase or reduce the actual flow rate of Users without affecting their capacity entitlements.

## Communications

Users will be notified of any requests by National Grid for locational offers via ANS:

*National Grid is seeking to **sell** locational gas. NTS Users are requested to post offers on the OCM locational market at the following locations (\*\*List ASEP(s)/NTS Exit Zone(s))*

*National Grid is seeking to **buy** locational gas. NTS Users are requested to post offers on the OCM locational market at the following locations (\*\*List ASEP(s)/NTS Exit Zone(s))*

## How to post offers

Users to post offers to the Locational Energy Market within the ICE Endex Platform, EuroLight. Please contact ICE Endex for specific details if unsure of this process.

## How do you know if they have been accepted?

EuroLight to be checked to view accepted offers. National Grid accepts offers based on factors including cost, location and lead-time in line with the System Management Principles Statement.

## User next steps

Users must confirm the Locational trade in Gemini within 60 minutes on the following screen, otherwise a Physical Renomination Incentive (PRI) charge will be incurred :

[Home](#) > [OCM](#) > [Maintain OCM Renominations](#)

- a. For successful trades, the message 'Renomination committed successfully' will be displayed at the left bottom corner of the screen
- b. For unsuccessful trades, the message 'Renomination committed partially' will be displayed

Flow nominations are automatically created on Confirmation of the trade.

Acceptance of a locational offer by National Grid will not automatically adjust your capacity entitlements. Users may have to adjust their entitlements in line with their physical gas flow in order to avoid an overrun charge.

## Trade Status Codes

The confirmation status of the Locational trade can be found in the Gemini screen:

[Home](#) > [OCM](#) > [Trade Details](#) > [Physical / Locational Trade Status](#)

### Trade Status Codes

UN = Unconfirmed

CN = Confirmed

UF = Unconfirmed/ Failed

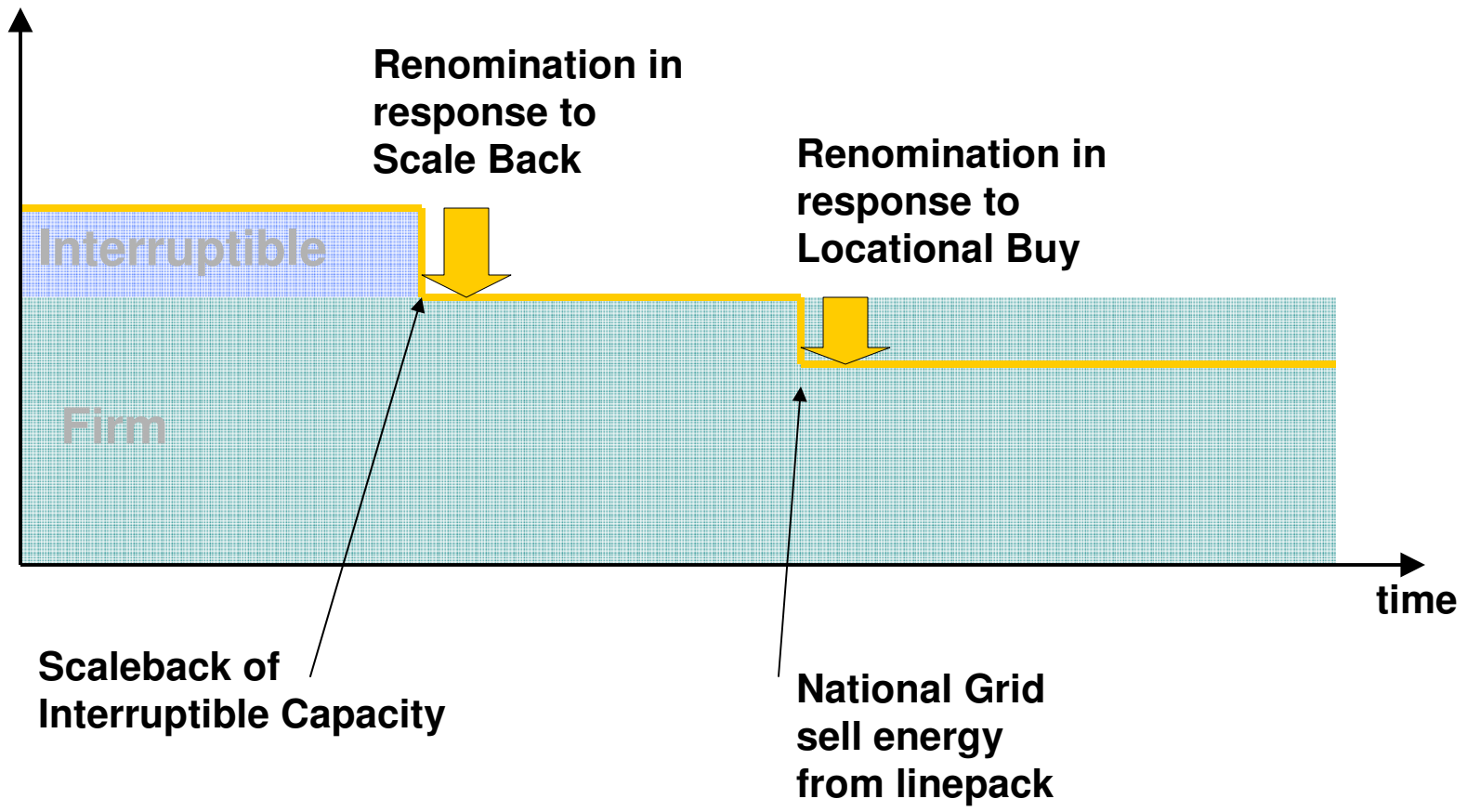
CP = Confirmed with PRI charges

Trade details can be viewed in the Gemini screen : [Home](#) > [OCM](#) > [Trade Details](#) > [OCM / OTC Trade](#)

## Further Information

If large or multiple buy or sell actions are undertaken the system may become out of balance. Under this scenario, further locational actions may be required following resolution of a constraint in order to achieve system balance. Referred to as Secondary Balancing Actions, any offers will be sought in areas of the NTS that are distant from the area of the constraint.

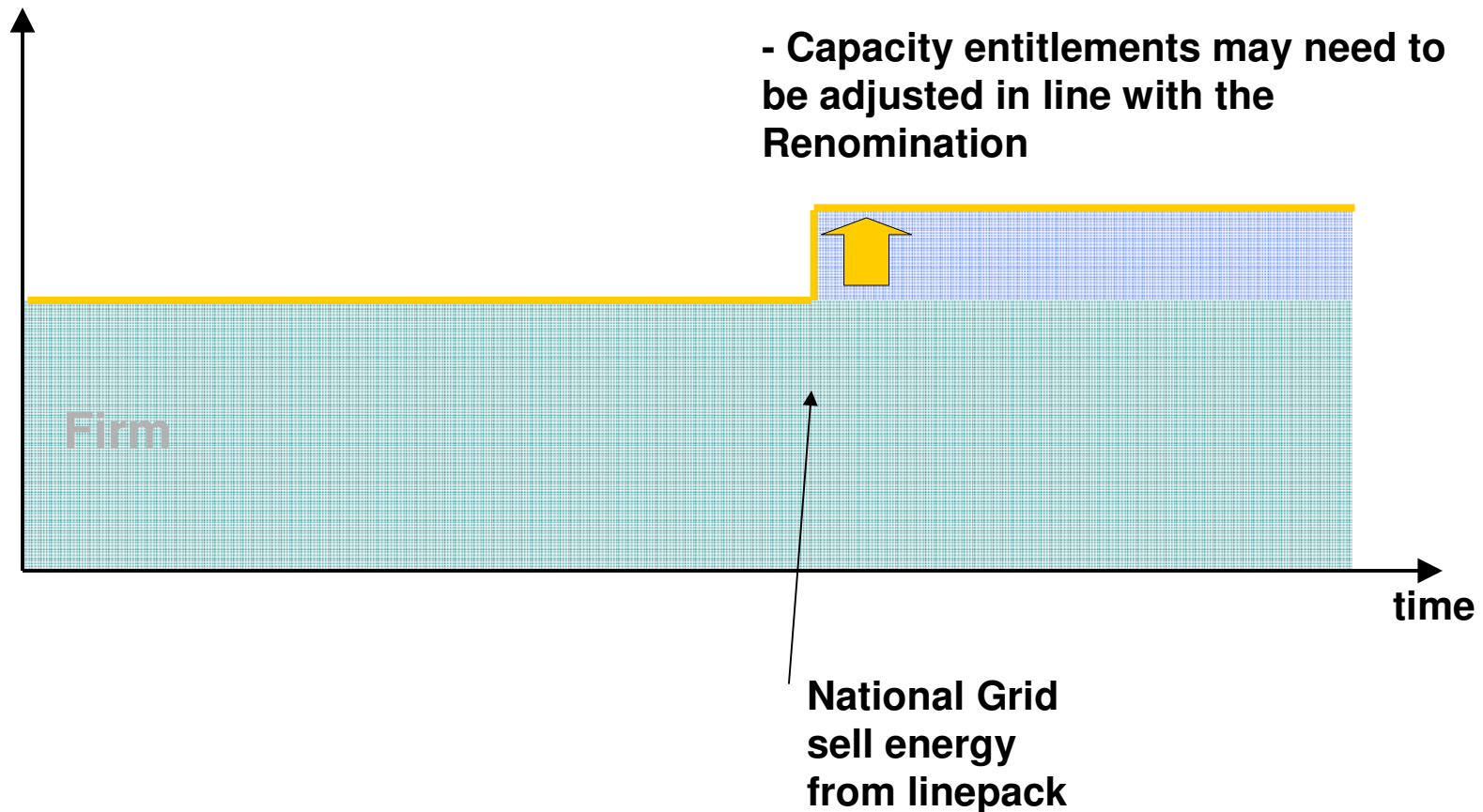
# User Locational Buy - Entry



## User Locational Buy – Exit

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- Renomination in response to Locational Buy.
- Capacity entitlements may need to be adjusted in line with the Renomination





## When

- National Grid may request to buyback Firm capacity rights in relation to a constraint, only after any Interruptible/Off-peak capacity has been scaled back.
- Carried out through Constraint Management Agreements (Forwards and Options Contract) or Surrender Auction.
- The daily Surrender Auctions in which Users can offer to surrender their capacity are referred to as 'DBSEC' (Daily Buyback System Entry Capacity) and 'DBNEX' (Daily Buyback NTS Exit Capacity).

## Communications

National Grid may request NTS Users to make Firm NTS Capacity Surrender Offers via ANS. The following ANS will be issued:

*National Grid is requesting entry / exit capacity surrender offers at ASEP / NTS Exit Zone(s) (xx). This is for Gas Day DDMMYY*

## User next steps

Users can place surrender offers by entering offer details in the following Gemini screens:

DBSEC – Gemini > Deal > Capture > Create Bids (Select Product 'Entry Capacity Firm Derived')

DBNEX – Gemini Home > Deal > Capture > Capture Requests (Select Product 'NTS Exit Flat Capacity Firm Derived')

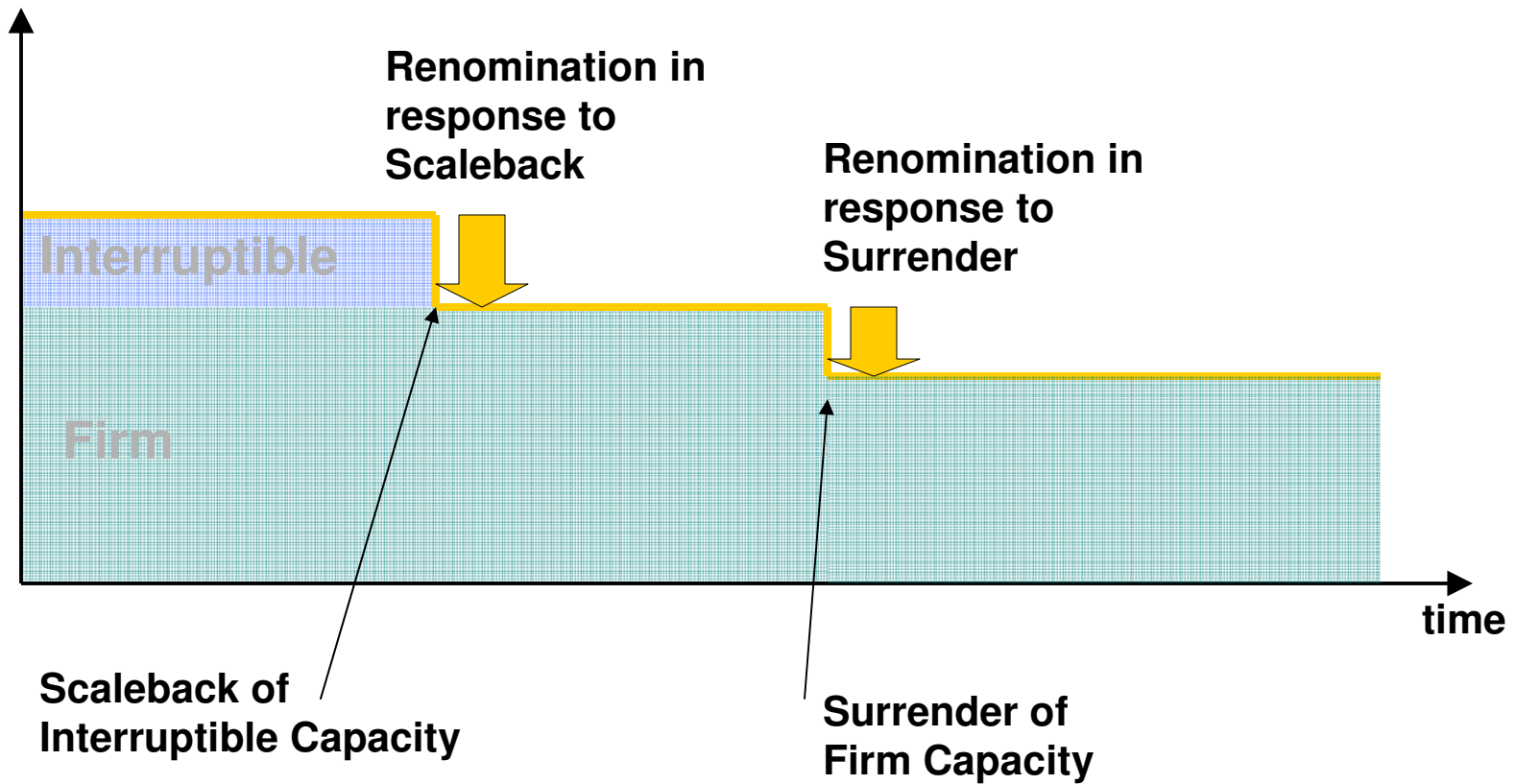
## How do you know if an offer has been accepted?

- Once National Grid have reviewed the surrender offers and an allocation is made, the following ANS will be issued:  
*For Gas Day (xx/xx/xx), National Grid has taken an Entry / Exit Capacity surrender action at (\*\*\*\*\*). Please see Gemini System for details.*
- Details relating to all accepted and rejected offers can be found in the following Gemini screens:  
DBSEC - [Gemini > Publish Reports > MoS Results](#)  
DBNEX - [Gemini Exit > Publish > Reports > MoS Reports > Post Allocation Information Reports](#)
- Individual User details can be viewed in the following Gemini screens:  
DBSEC - [Gemini > Deal > Bid Capture Reports > Bid Information](#)  
DBNEX - [Gemini Exit > Publish > Reports > MoS Reports > Post Allocation Information Reports](#)

## Further Information

- Following the allocation of a User's surrender offer, the User's Firm capacity entitlements will be adjusted in line with the accepted offer and the revised entitlements can be viewed in the following screens:  
Entry – [Gemini > Product > Entitlements – Net](#)  
Exit – [Gemini Exit > Publish > Reports > User Reports > Entitlement Report](#)
- Users are expected to manage their nominations in line with their (reduced) capacity entitlements in order to avoid overrun charges.

# Surrender of Firm Capacity



# External Publications

Information Provision	Intent/Message to NTS Users	Information published externally	Means of communication	Web Link
Margins Notice	To provide NTS users with early notice of a potential Supply/Demand imbalance for the next gas day	ANS Handset Message ANS Web Message  MN Trigger Level  Daily Margins Report	ANS Web  Web  Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx</a> <a href="http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx</a> <a href="http://www.nationalgrid.com/uk/Gas/Data/MNReport/">http://www.nationalgrid.com/uk/Gas/Data/MNReport/</a>
Gas Deficit Warning	To warn NTS users of a forecast or actual significant risk to the physical end of day NTS balance. Issued ahead of or during the gas day it is applicable for.	ANS Handset Message ANS Web Message  Web Status  Email - Subscription service available Text Message - Subscription service available	ANS Web  Web  Web  Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx</a> <a href="http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx</a> <a href="http://www.nationalgrid.com/NR/rdonlyres/6C46A35C-DC71-4891-9B72-287EEA7F85DB/60941/GDWForm.htm">http://www.nationalgrid.com/NR/rdonlyres/6C46A35C-DC71-4891-9B72-287EEA7F85DB/60941/GDWForm.htm</a> <a href="http://www.nationalgrid.com/NR/rdonlyres/6C46A35C-DC71-4891-9B72-287EEA7F85DB/60941/GDWForm.htm">http://www.nationalgrid.com/NR/rdonlyres/6C46A35C-DC71-4891-9B72-287EEA7F85DB/60941/GDWForm.htm</a>
Locational Energy Actions	To notify users of locational requirements to aid the management of localised NTS constraints	ANS Handset Message ANS Web Message  Supporting Process Information	ANS Web  Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/frmPrevalingView.aspx</a> <a href="http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/">http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/</a>

# External Publications

Information Provision	Intent/Message to NTS Users	Information published externally	Means of communication	Web Link
Scale Back Interruptible NTS Entry capacity	Notification to NTS users that interruptible entry capacity has been scaled back due to a forecast or actual NTS constraint	ANS Handset Message ANS Web Message  Supporting Process Information	ANS Web  Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/formPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/formPrevalingView.aspx</a> <a href="http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/">http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/</a>
Scaleback Offpeak NTS Exit Capacity	Notification to NTS users that Offpeak Flat Exit capacity has been scaled back due to a forecast or actual NTS constraint	ANS Handset Message ANS Web Message  Supporting Process Information	ANS Web  Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/formPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/formPrevalingView.aspx</a> <a href="http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/">http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/</a>
Firm Capacity Surrender (Buy Back) NTS Entry and/or Exit Capacity	Notification to NTS Users requesting offers to surrender their Firm NTS Exit Capacity due to a forecast or actual NTS constraint	ANS Handset Message ANS Web Message  Supporting Process Information	ANS Web  Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/formPrevalingView.aspx">http://marketinformation.natgrid.co.uk/gas/formPrevalingView.aspx</a> <a href="http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/">http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSExitZones/</a>

# External Publications

Information Provision	Intent/Message to NTS Users	Information published externally	Means of communication	Web Link
Offtake Flow Reductions	Notification to NTS Users requesting offers for Offtake Flow Reductions due to a forecast or actual NTS constraint	ANS Handset Message ANS Web Message Supporting Process Information	ANS Web Web	N/A <a href="http://marketinformation.natgrid.co.uk/gas/frmPr evalingView.aspx">http://marketinformation.natgrid.co.uk/gas/frmPr evalingView.aspx</a> <a href="http://www.nationalgrid.com/uk/Gas/Operational Info/NTSExitZones/">http://www.nationalgrid.com/uk/Gas/Operational Info/NTSExitZones/</a>
Short Term System Flexibility Restriction	Notification to NTS users that requests for NTS flexibility within an NTS Exit Zone may not be accommodated	Flex Allocation Methodology ANS Handset Message	Web ANS	<a href="http://www.nationalgrid.com/NR/rdonlyres/E176 C4E6-5E6D-41C5-8E71-3710A9591D26/56535/ShorttermFlexAllocationM ethodologyv21.pdf">http://www.nationalgrid.com/NR/rdonlyres/E176 C4E6-5E6D-41C5-8E71-3710A9591D26/56535/ShorttermFlexAllocationM ethodologyv21.pdf</a> N/A
GB Remit*	Notification to industry of events ("insider Information") that may lead to a change in wholesale Gas prices	Web	Web	<a href="https://www.remit.gb.net/">https://www.remit.gb.net/</a>

\*GB Remit is a platform hosted & maintained by NG NTS. Any industry physical asset operator within the UK can post messages on this platform. However, GB Remit is not the only platform within the EU for this type of communication but would be the primary choice for qualifying National Grid NTS publications

- Please provide any feedback or questions to the Capacity team :

Email: [Capacityauctions@nationalgrid.com](mailto:Capacityauctions@nationalgrid.com)

Phone: 01926 65 4057

- Further Information available on the National Grid website:

<http://www.nationalgrid.com/uk/Gas/OperationalInfo/NTSEExitZones>