

Exit Constraints Webinar

We will start at 13.02 to allow participants to finish previous meetings and join the call

 Gas
Transmission

Slido.com
#ECW



Welcome and Opening

Thank you for joining us today

Bridget Hartley
Head of Operational Delivery



Who will be speaking?

Richard Pickup

Network Manager, Gas
National Control Centre



Alison Tann

NTS Capacity & Access
Development Manager



Tom Wilcock

Emergency and
Compliance Manager



Nera Lenden

Customer & Stakeholder
Business Partner



Agenda

Overview of how we identify and manage exit constraints from the following perspectives, responding to specific questions in each area:

1. Operational

2. Commercial

3. Network Emergency Management Team

4. Q&A opportunity

Logistics



Should last for approximately about 60 min



Questions and polling via slido.com #ECW



All callers will be placed on mute



We will circulate the slides of this webinar

Gas Transmission Responsibilities

Develop, maintain and operate a
Safe, Economic and Efficient
pipeline system for the
conveyance of gas



Operational fundamentals

Operate a

Safe

Economic

Efficient

.....pipeline system

- **23** compressors and **7660** kms of pipeline
- **Commercial facilitation** of the gas market
 - residual balancer
 - information provision
 - capacity release (e.g. Non-Obligated)
- Suite of **physical**, **commercial** tools and **emergency** arrangements

The 3 Cs

Capacity

- Often confused with 'capability'
- Commercial product ('ticket to ride', 'right to flow', 'space in the pipe' etc.)
- Does not infer a physical flow

Capability

- The ability of the current pipeline and plant available to flow a gas volume. It varies significantly based on network conditions
- Can mean at a moment in time or relate to end of day
- This is what will decide whether we forecast a constraint

Constraint

- Forecast a constraint where physical flow is above physical capability and without a change in projected flows or conditions a critical pressure would be breached in a given gas day.
- A constraint situation is when we are taking actions to change the flow.

Exit Constraint

- Generally not a single point or location impacted
- For National imbalance a location not initially known
- No ability to issue an operator to operator instruction to reduce flow for exit (i.e. Terminal Flow Advice for entry)
- The trigger not necessarily a fixed pressure and constraint volume not precise

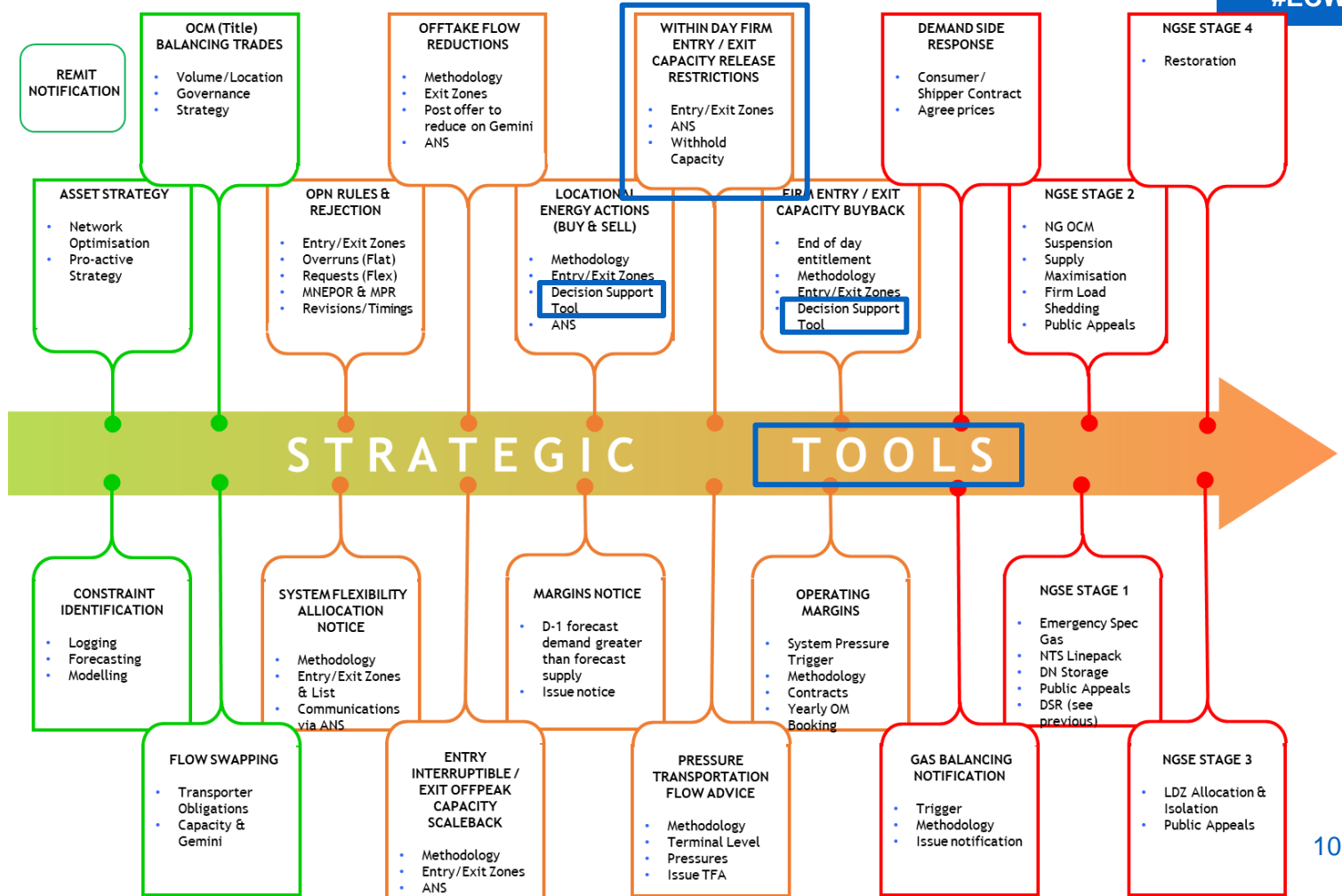
Strategic tools overview

revised

What actions would you take to manage a constraint?

In what order would you take any actions?

How is the constraint risk communicated to Shippers?



Operational

Safe

Economic

Efficient

Normal Operation

Constrained Operation

Emergency Operation



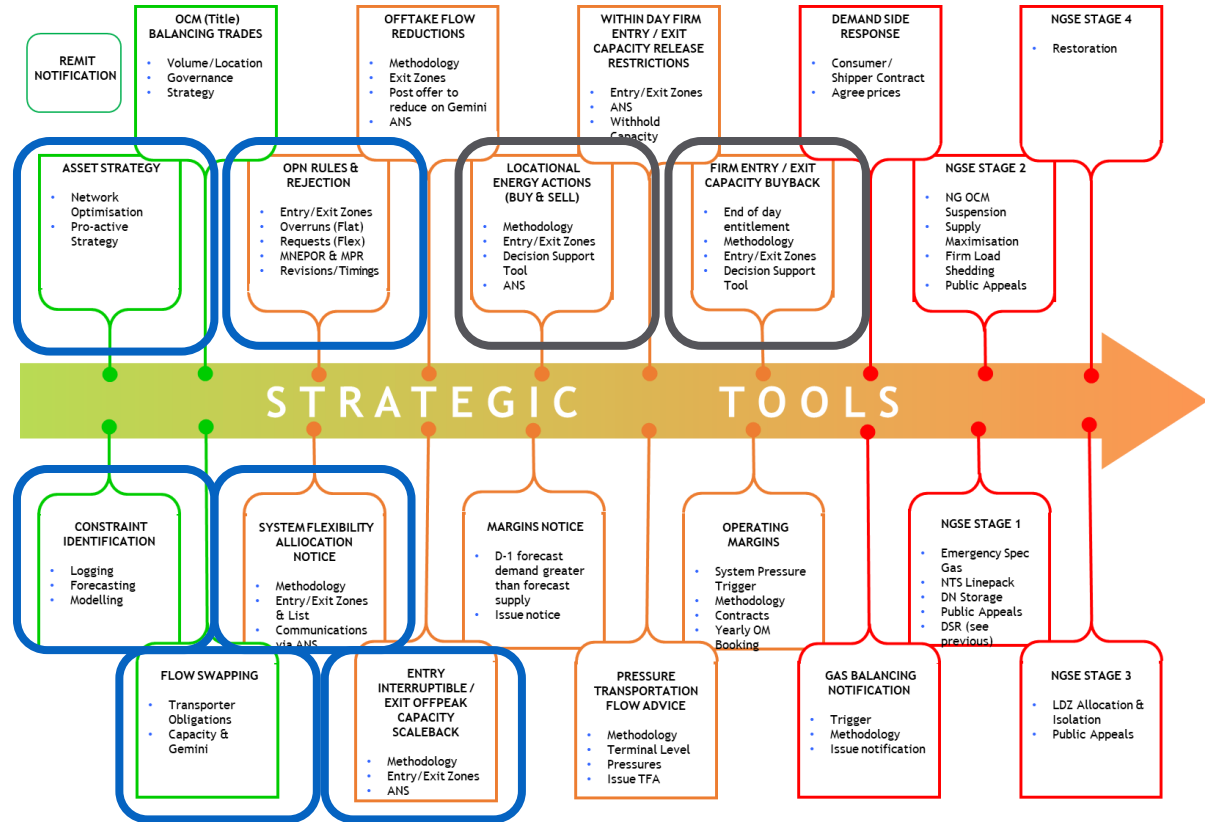
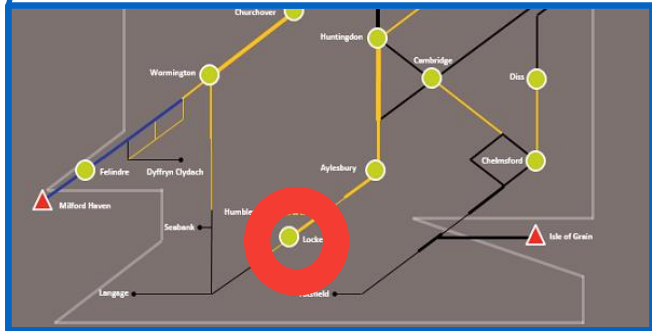
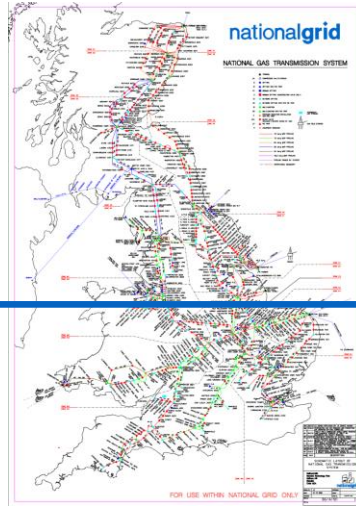
Examples of Exit constraints

- Plant integrity issue at specific offtake
- Localised issue (e.g. NTS plant failure, demand threshold, 3rd party damage)
- National Issue
 - 1st March 2018 (Beast from the East)
 - Exercise Degree

Are actions taken at national or regional level?



Example 1 – Lockerley trip (localised issue)

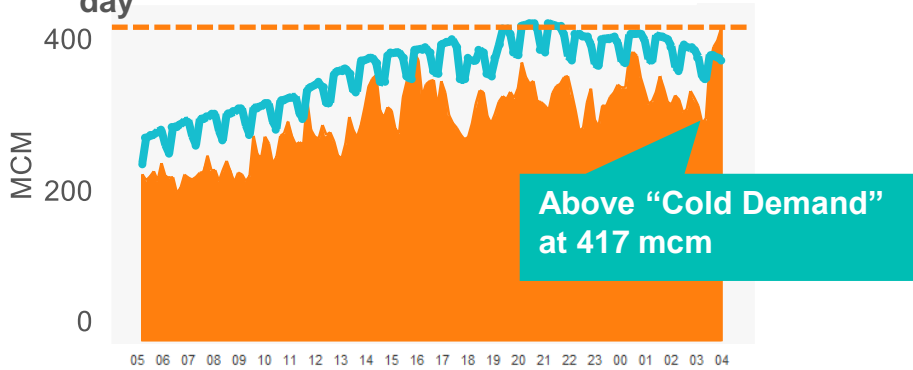


Example 2 – 1st March 2018 (national issue)

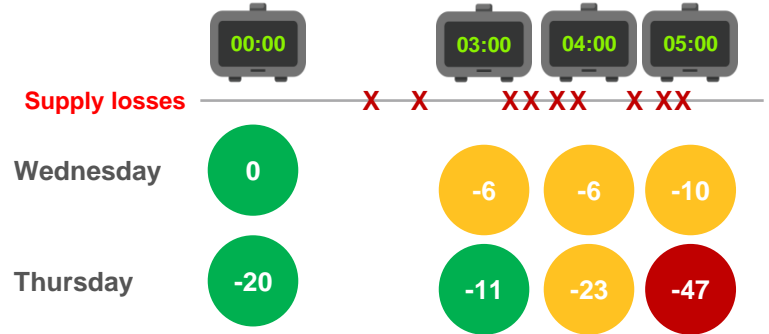


Example Day : 1st March Gas Deficit Warning Issue at 05:47

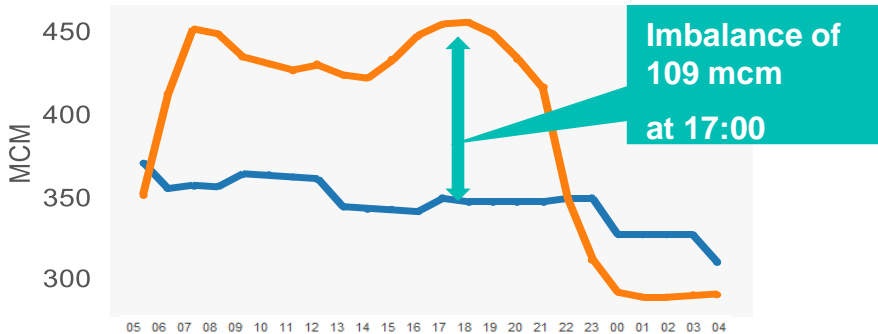
1. Unseasonably high Demand against significant cold front leading into the day



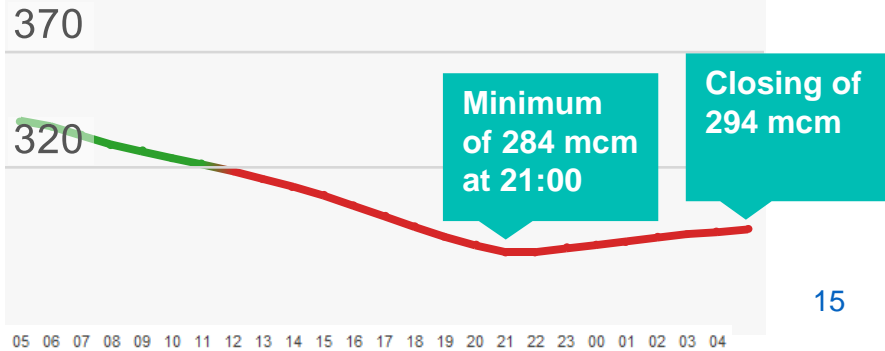
2. Multiple supply losses during the evening of the 28th between 01:00 and 05:00 leading to a significant shortfall



3. Projected large and sustained imbalance at 05:00 between Demand and Supply during the 1st March

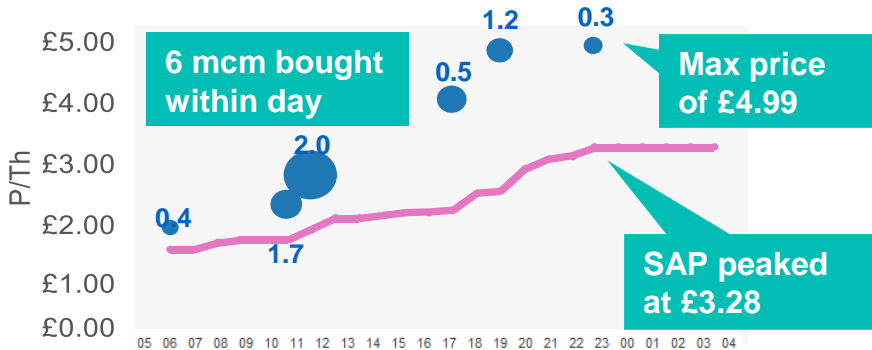


4. The resultant 05:00 projection for NTS Stock Level depletion meant that the NTS would fail against pressure obligations.

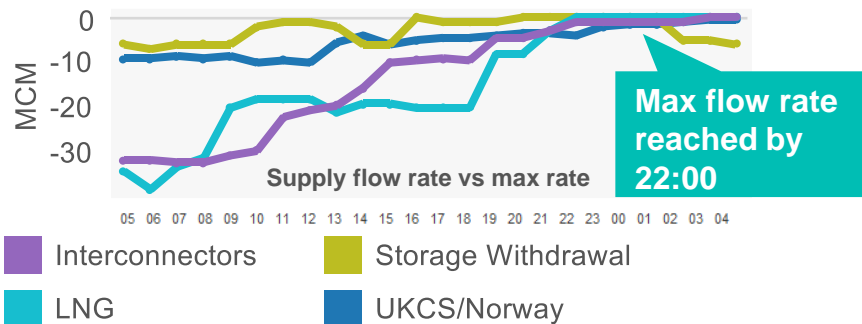


Example Day : 1st March National Grid Actions & Impact

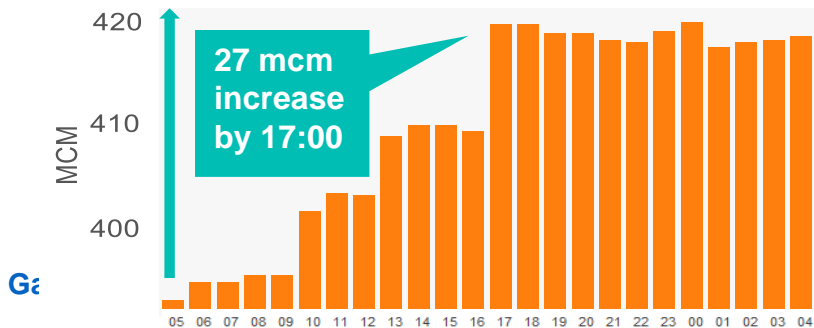
1. Consistent (Volume / Price) OCM trading throughout day accepting available offers.



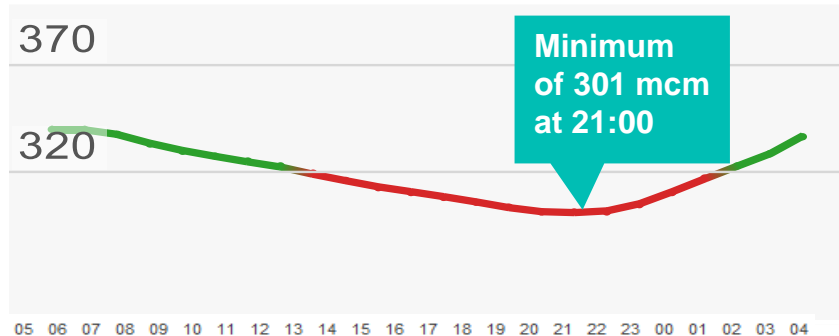
2. Only significant available supply response available via LNG (SH & Grain) and Interconnectors.



3. Major upward revision of end-of-day demand forecasts by distribution networks – no DSR evident



4. Lowest ever recorded linepack. OM required within-day to support extremity. Two assured DN pressures missed.



Example 3 – Exercise Degree (national issue)

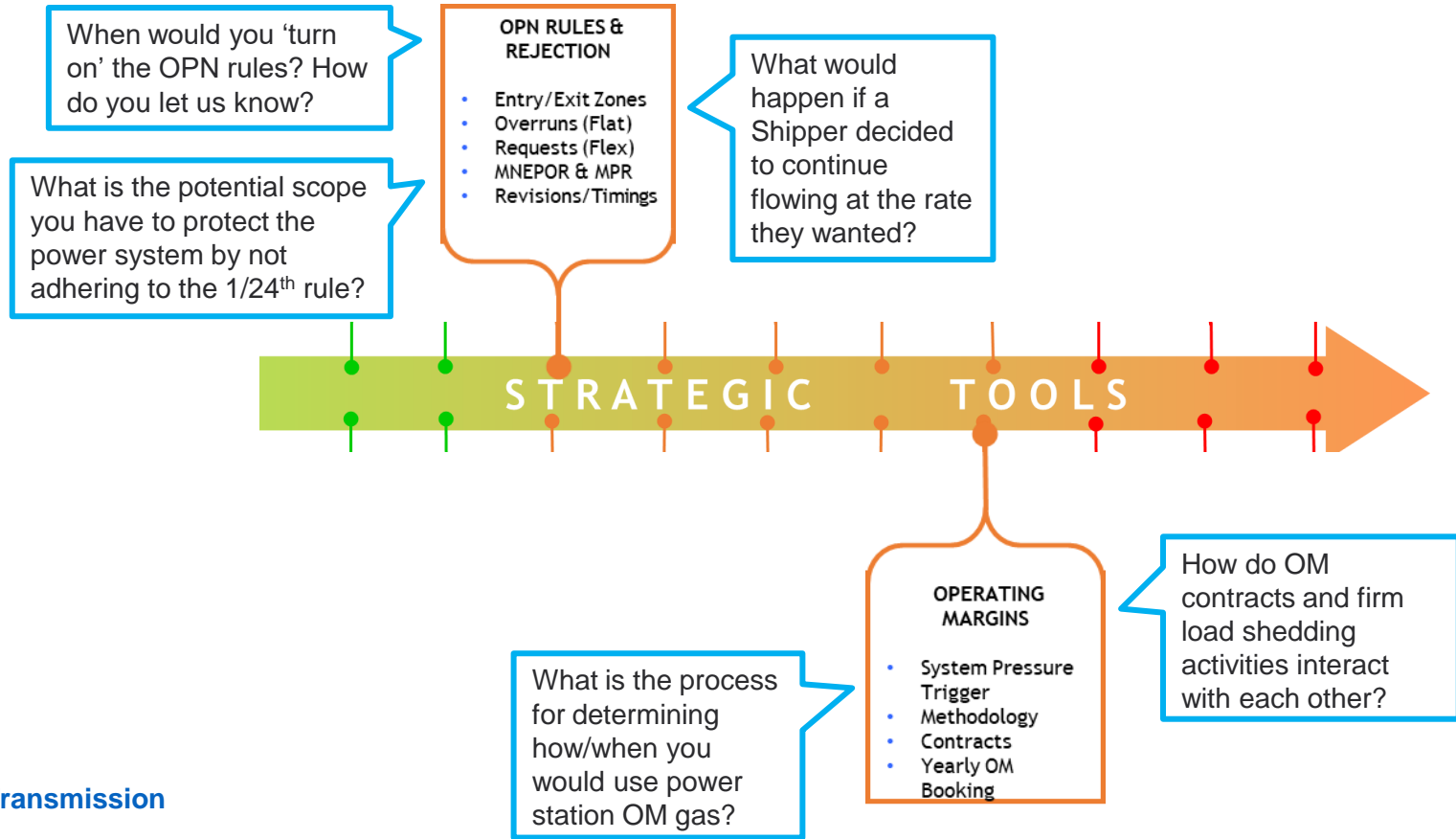
Industry Exercise Degree



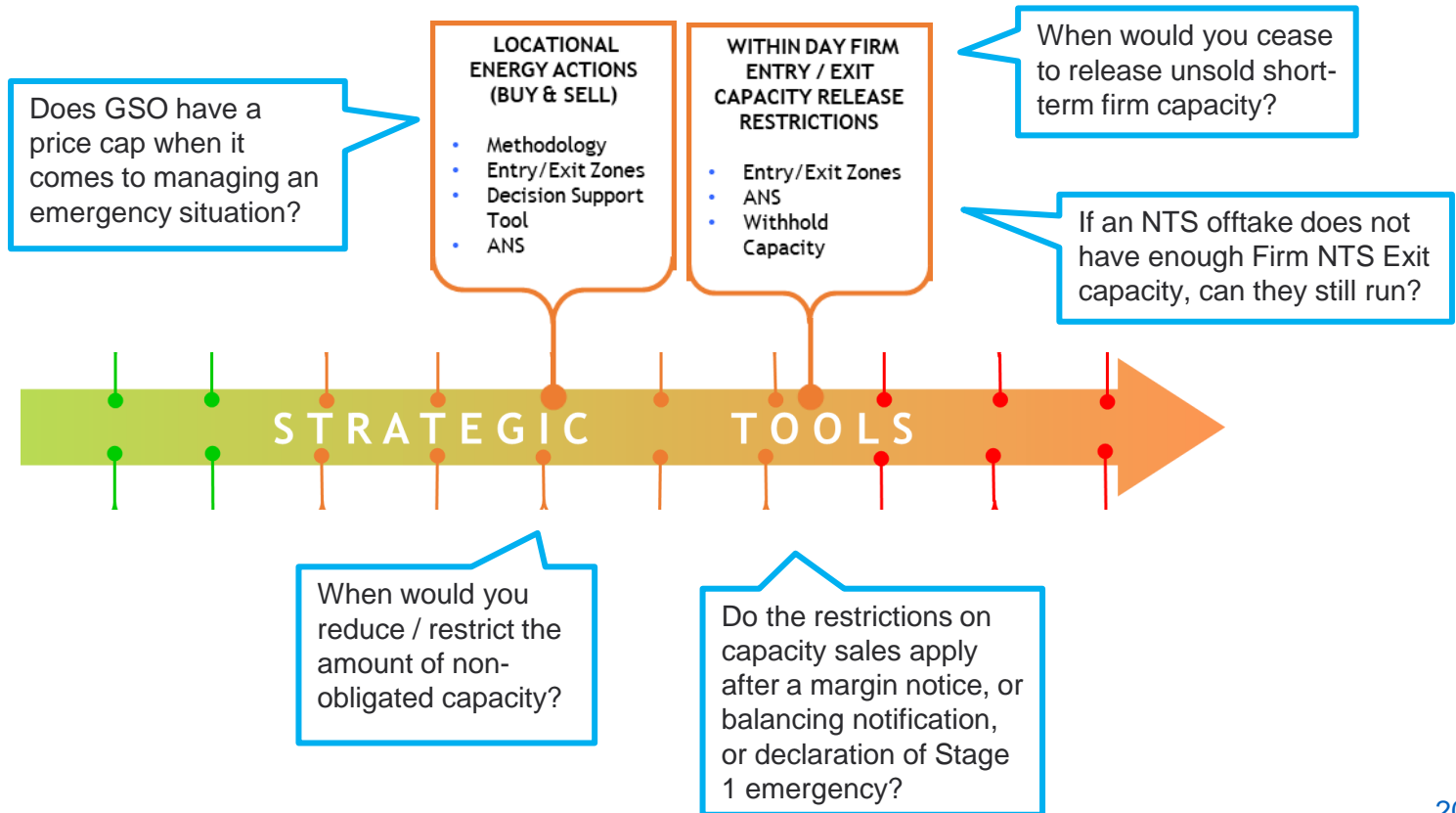
Commercial perspective



Strategic Tools: Additional questions received 1 of 2



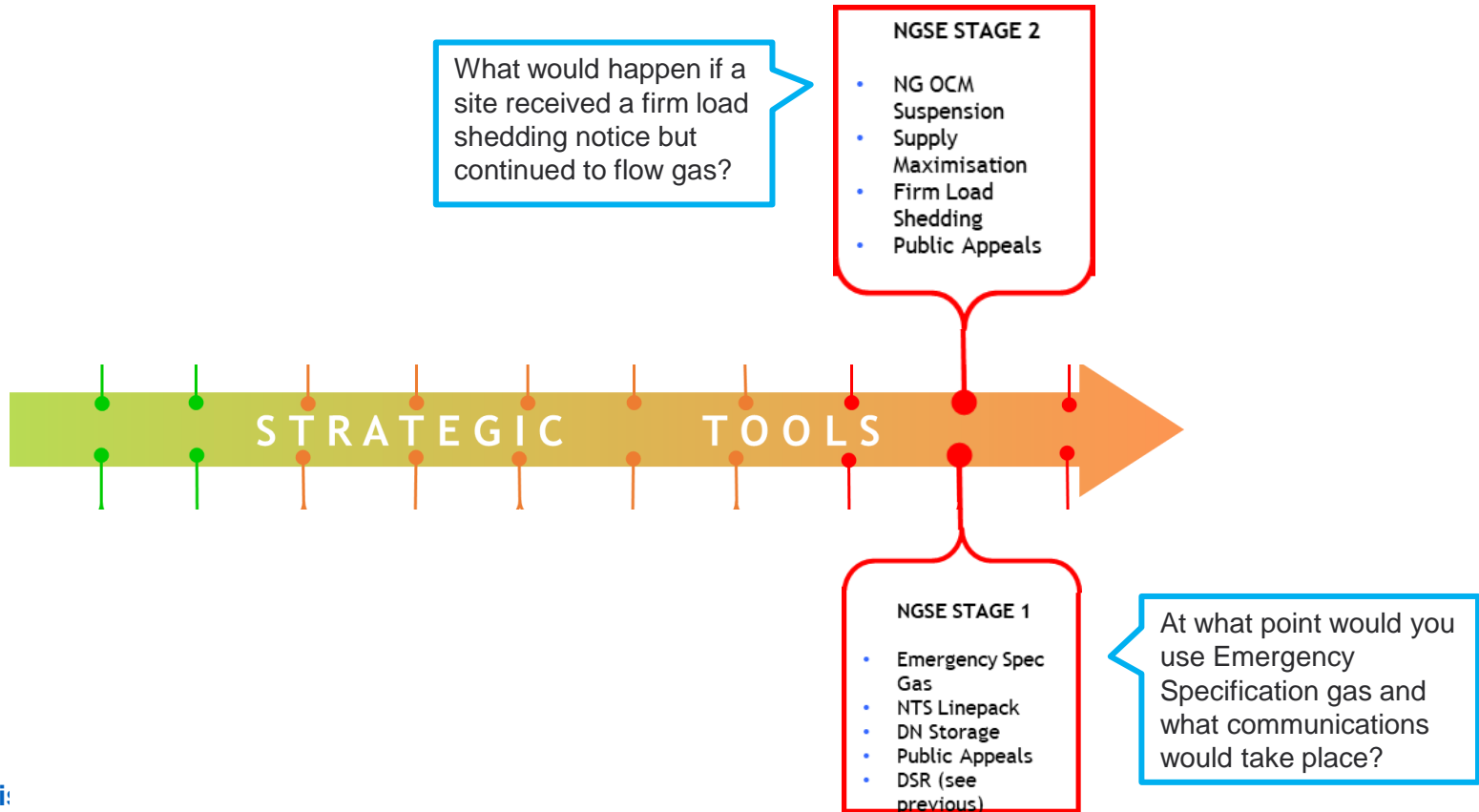
Strategic Tools: Additional questions received 2 of 2



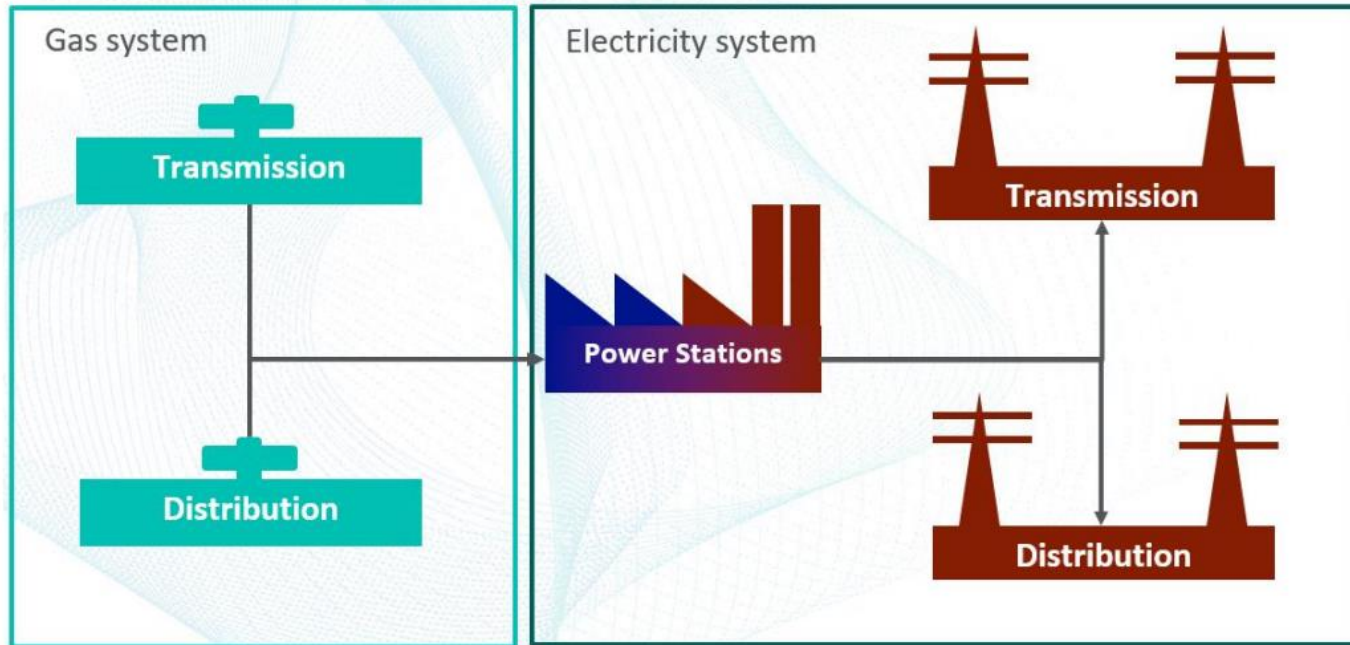
Network Emergency Management Team perspective



Strategic Tools: Additional questions received



GSO to ESO communications / interactions



Q&A



Questions



What next?



You will receive slide from today's session



If you have any further questions or would like to discuss anything specific please get in touch with nera.lenden@nationalgrid.com



Feedback is important to us, therefore if you have not already taken part, we would like to put you forward for a survey

Thank you for joining us





Gas

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