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Modification 407 - Transmission Workgroup Update

10 January 2013

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Mod 407 Workgroup – 12 December

- Action 0407/1203: Modification 0407 to be outlined to a wider audience (Transmission Workgroup 10 January 2013) and views sought to be captured in the Workgroup Report.
- In order to facilitate completion of the above action NTS are to go through some of the material they presented at the last 0407 Workgroup.

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NTS initial thoughts with regards to GL Group analysis of the impacts of Modification 407

Slides originally presented at 407 Workgroup 12 December 2012

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GL Group 407 analysis findings - summary

1. Assessment of current performance with regards to the 2 hour 5% rule - around 70% of OPNs do not satisfy the rule
2. NTS linepack depletion effect: ~ 6mcm for 95% coverage
3. If the 2 hour 5% rule was removed the level of NTS linepack depletion effect is estimated to increase in the short term to ~ 7mcm for 95% coverage (medium term impact not quantified)
4. Around 30% of elapsed hours were also found to have been retrospectively amended by a later OPN - NTS linepack depletion effect ~ 9mcm for 95% coverage
5. *Combined linepack depletion effect based on removing the rule is 14-15mcm

Note*: the combined linepack depletion effect is not a simple sum of retrospective & future effects (3 & 4). On a day by day basis the 2 effects sometimes cancel each other out.

Note: GL Group have confirmed that 2008 Design Margin study assumed the 5% 2 hour rule was being complied with

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NTS Initial Thoughts

- NTS has only had a few days to review the GL analysis findings
- The GL findings raise a number of interesting implications with regards to Mod 407 and wider considerations

1. NTS Design Margin Impact
2. NTS approach to flow change requests
3. OPN Accuracy and Timing
4. Requirement to consider the development, in the medium-term, of commercial solutions for all NTS System Points
5. Need to develop Total System options to deliver Customer requirement

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NTS Design Margin Impact

- The GL analysis results (14-15 mcm combined linepack effect) indicate that the NTS Design Margin needs to increase from the current 2% to between 5 and 7%

Component	Factor	2008	Description / Mitigation
Transient	Compressor trips	2%	"Compressor stops running"
	Forecasting errors		**"Lag between demand and supply from and to NTS"**
	Supply alerts		"Supply failure upstream of NTS"
	Operational element	0%	**"NTS operating state alteration is carried out by GNCC and the risks involved are mitigated through their control of the network under UNC rules."**
Total value		2%	

- Work is being undertaken to identify the full impacts of such a change to the NTS Design Margin
- However, is changing the NTS Design Margin the most appropriate/only option?

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NTS approach to flow requests

- To facilitate the efficient operation of the network, NTS currently seek to accommodate flow requests from Network Users that are outside of contracted values
- However, NTS only allow such actions where it is safe to do so and when these actions would not immediately lead to or contribute to us taking a Market Balancing Action
- Experience has shown that events requiring NTS to restrict offtakes in line with these rules are extremely rare (“difficult days”) but historic performance should not be the only consideration going forward

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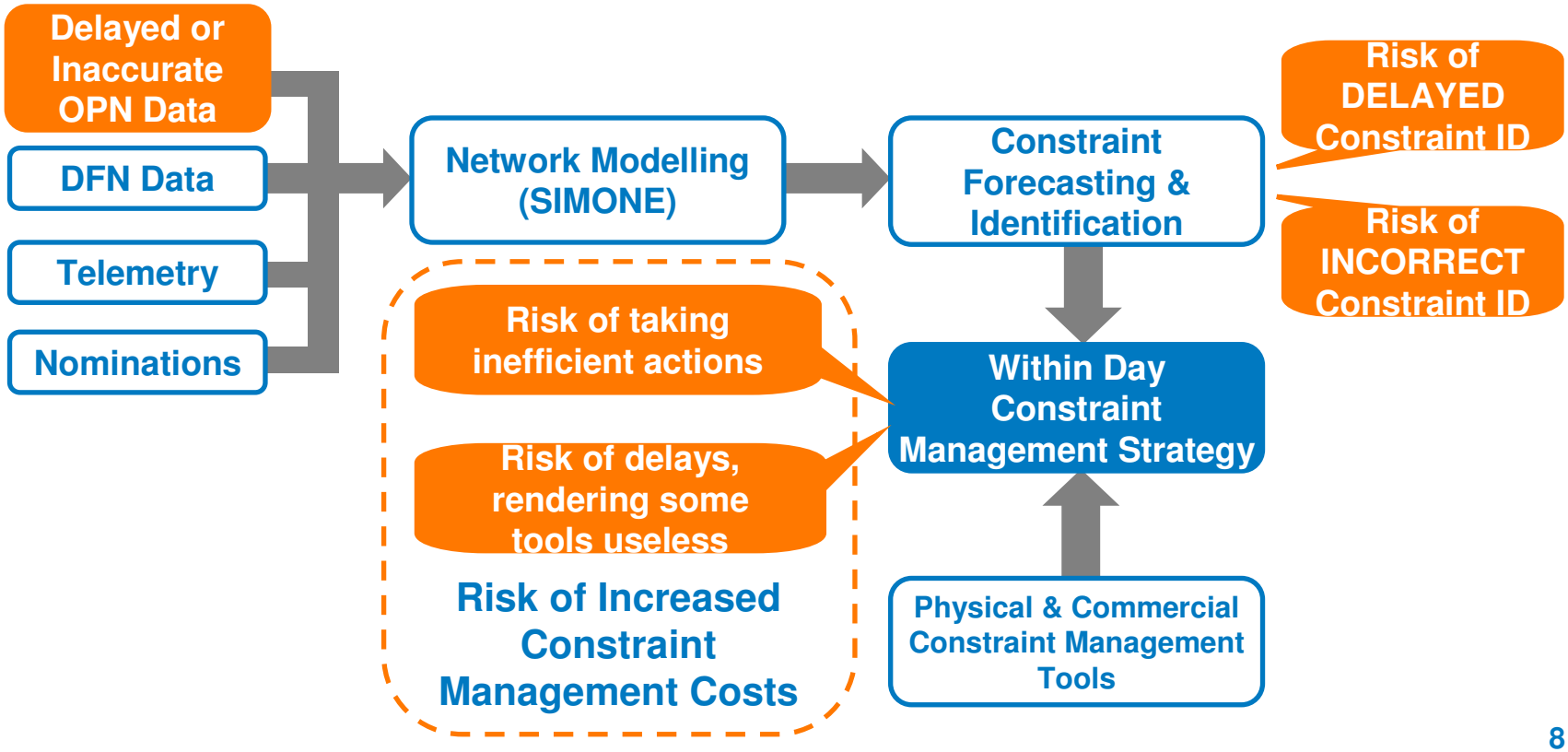
OPN Timing and Accuracy

- Efficient operation of the pipeline system is affected by the accuracy and timeliness of the information provided by Users of that system



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Medium-term Solutions

- GL analysis results highlight the need to move forward on the development of total system commercial arrangements to discover the market value of the provision of flow flexibility and to incentivise its efficient release
- We wish to work with the industry as a whole to design such a product(s)

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Total System Options

- However, an alternative is for NTS, DNOs, their customers and NTS customers to work together to develop a total system solution to the flow flexibility challenges

- Potential direct alternatives to enable provision of flexibility to end consumer (driver behind 407)
  - Introduce flexibility to turn on or off the current 2 hour 5% rule, for example – allows Consumer's needs to be met majority of the time:
    - Difficult days/GBAs – Margins Notice and/or Gas Deficit Warning
    - High/low demand days – national or local (as agreed in advance by industry participants)
    - Manage OAD 2 hour 5% rule the same as UNC TPD J4.5.6 and 4.5.7
  - Introduce ability for current OAD rule to be replaced/removed in exchange for reducing Obligated Capacity levels – potentially allows Consumer's requests to be met more of the time

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Total System Options

- Potential further options for efficient provision of flow flexibility across the total system
  - Undertake targeted total Network Investment and/or agree reduced obligated capacity levels across the system
  - Make corresponding changes to DN Flex bookings
  - Reduce current levels of contracted pressures releasing greater total system flexibility