Gas
Transmission

GNI Flow Notifications at Moffat IP

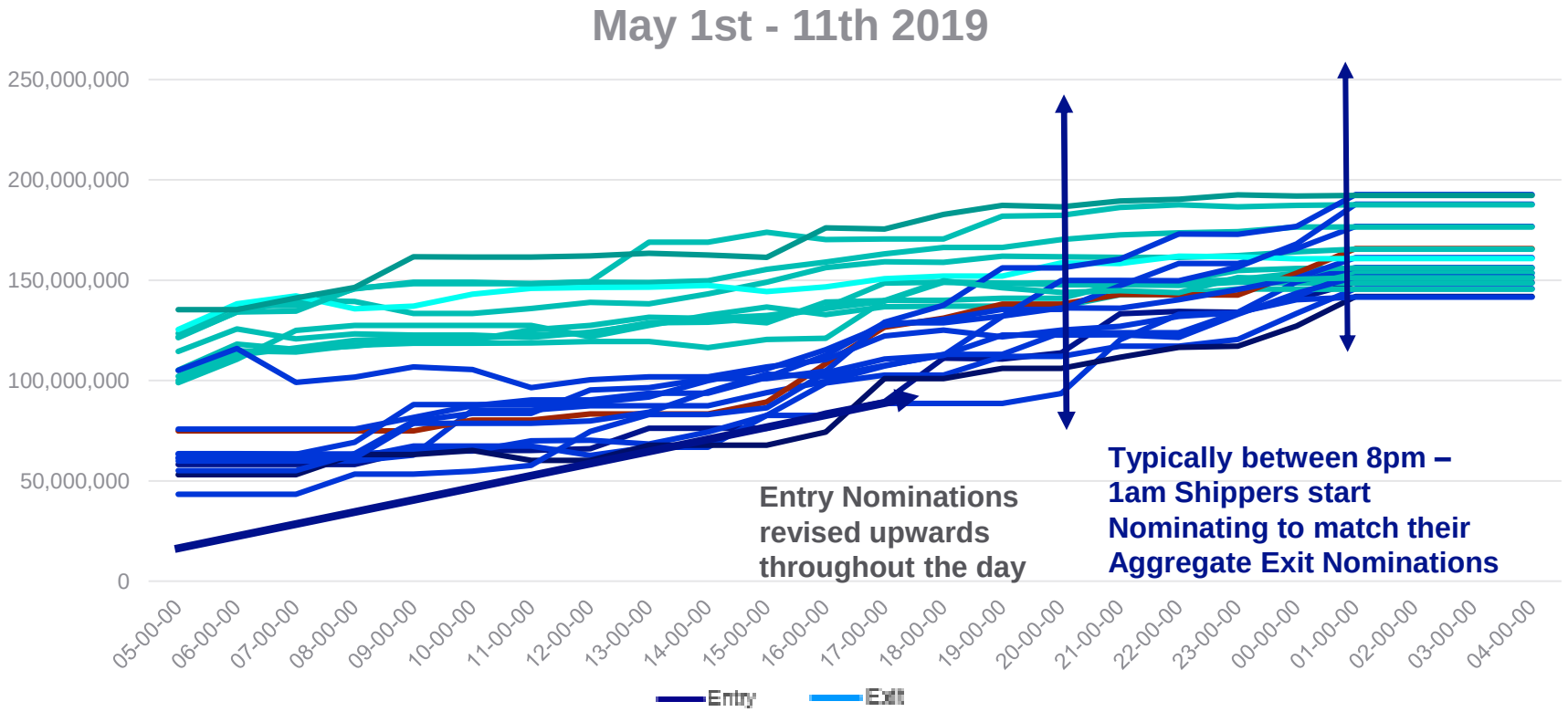
Transmission Workgroup
05/03/2020

nationalgrid

Background

- GNI currently provide National Grid with notifications that contain an End of Day quantity based on the aggregation of the prevailing net shipper nominations (and any OBA CSD correction). This is defined as the ‘Agreed Target Quantity’.
- Since the introduction of EU Network code and Corrib field coming online, GNI (UK) have been experiencing issues with Entry Nominations at Moffat IP being revised upwards by shippers throughout the day.
- This is understood to be due chiefly to the 1/24 rule, INFR and lack of a within day balancing incentive.
- Typically, between 8pm – 1am Shippers begin Nominating to match their Aggregate Exit Nominations.

Moffat Entry Nominations Vs. Aggregate Exit Demand



*Graph provided by GNI therefore data shown is from an Irish perspective with Entry and Exit reversed

Issues

- Unreliable information provided to National Grid acting as detriment to the commercial balance of the NTS.
- Inefficient compressor usage for both GNI and National Grid.
- Inaccuracies in the Predicted Closing Linepack. PCLP is the only available linepack forecast made available by National Grid therefore can have significant impact on market prices and trading behavior.

An improved mechanism for calculating the ATQ would benefit both TSOs and Shippers.

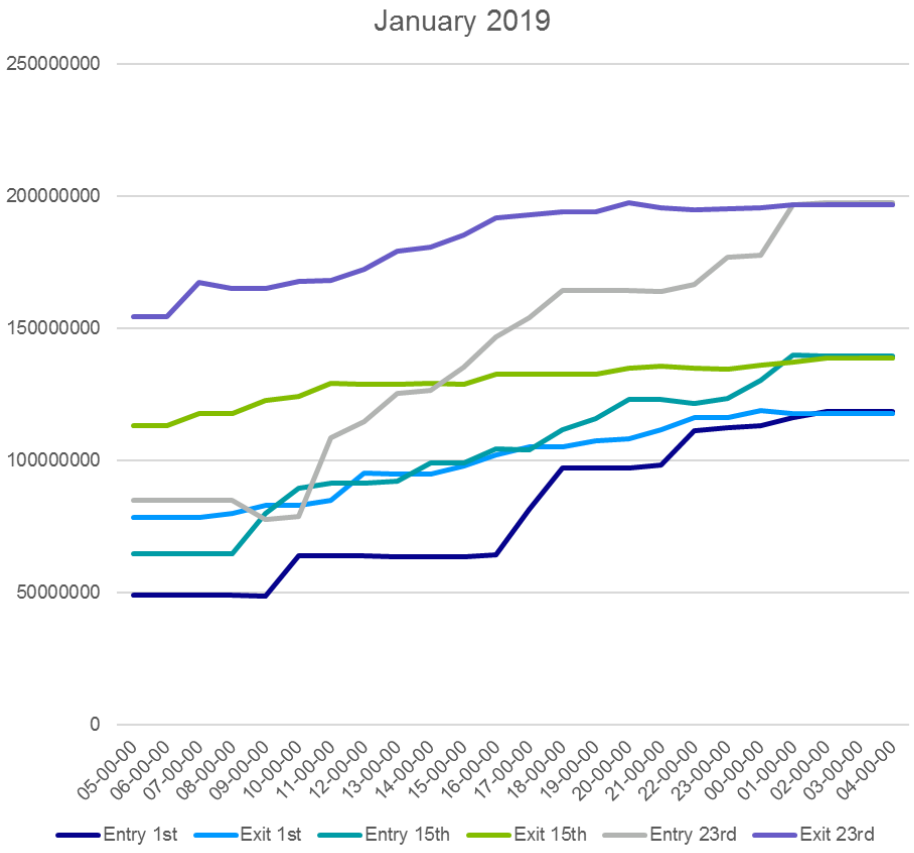
Proposal

- The proposed change is to calculate the Agreed Target Quantity by instead using aggregate exit demands within GNI's system (including VRF) and subtracting the anticipated entry quantities at other Entry Points.

- GNI feel this will result in a more accurate anticipated Agreed Target Quantity for the Moffat IP and have provided some initial data to support this.

- GNI would ensure that exit flow profile would be fully aligned to aggregate nominations by the end of each gas day.

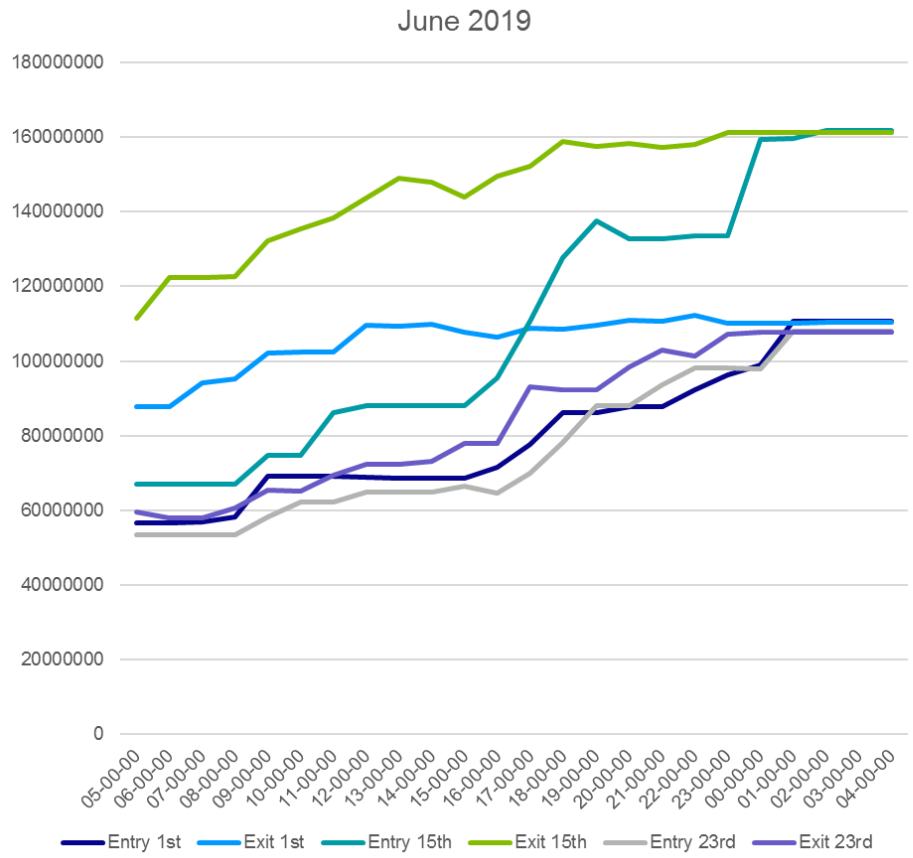
- There is also scope to introduce sub-options where the mechanism used is switched at a certain time (circa midnight) either immediately or over a period of hours.



Key Points in the Gas Day: 1st January	Under/ Over Estimation of EODQ based on Exit	Under/ Over Estimation of EODQ based on Entry
5am	-50%	-140%
11am	-39%	-85%
5pm	-12%	-44%
11pm	-1%	-5%
4am EOD Position Entry vs. Exit difference 0.34%		

Key Points in the Gas Day: 15th January	Under/ Over Estimation of EODQ based on Exit	Under/ Over Estimation of EODQ based on Entry
5am	-23%	-114%
11am	-8%	-52%
5pm	-5%	-34%
11pm	-3%	-12%
4am EOD Position Entry vs. Exit difference 0.35%		

Key Points in the Gas Day: 23rd January	Under/ Over Estimation of EODQ based on Exit	Under/ Over Estimation of EODQ based on Entry
5am	-27%	-132%
11am	-17%	-81%
5pm	-2%	-28%
11pm	-1%	-11%
4am EOD Position Entry vs. Exit difference 0.31%		



Key Points in the Gas Day: 1st June	Under/ Over Estimation of EODQ based on Exit	Under/ Over Estimation of EODQ based on Entry
5am	-26%	-95%
11am	-8%	-60%
5pm	-1%	-42%
11pm	0%	-15%
4am EOD Position Entry vs. Exit difference 0.21%		

Key Points in the Gas Day: 15th June	Under/ Over Estimation of EODQ based on Exit	Under/ Over Estimation of EODQ based on Entry
5am	-45%	-141%
11am	-17%	-87%
5pm	-6%	-46%
11pm	0%	-21%
4am EOD Position Entry vs. Exit difference 0.26%		

Key Points in the Gas Day: 23rd June	Under/ Over Estimation of EODQ based on Exit	Under/ Over Estimation of EODQ based on Entry
5am	-81%	-102%
11am	-55%	-73%
5pm	-16%	-54%
11pm	0%	-10%
4am EOD Position Entry vs. Exit difference 0.24%		

Benefits

- More accurate PCLP, this is the only available linepack forecast made available by National Grid, therefore can have significant impact on market prices and trading behavior.

- Potential for more efficient use of compression due to a reduction in operational issues caused by late upward renominations.

- Reduced cost to industry as National Grid able to provide more efficient balancing of the NTS.

- Enabling operational efficiencies for both GNI and National Grid.

Considerations

- If the Exit Flow Profile was miscalculated and there was significant deviation between the End of day nominations and the measurement, a non-OBA day may be called.

- What steps can be taken to ensure that there is no additional risk on the OBA.
    - If the mechanism is switched late in the day this could eliminate any additional risk to the OBA

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