

Electricity || Natural Gas || LPG

23 September 2016

Paul Cruse Senior Advisor Gas Industry Company Ltd

By email: Paul.Cruse@gasindustry.co.nz

Dear Paul

Re: Proposed modifications to D+1 Business Rules

Nova is in favour of introducing processes for improving the accuracy of estimated daily gas consumption. While the proposed modifications should help improve the process of covering for data error, Nova suggests that by applying improved statistical processes and a simple input for changes to expected meter demand would cover all the situations described in the paper.

Specifically:

- Data errors should be flagged if they are higher than 3 standard deviations from the mean.
- ICP shutdowns, New AG1 & AG2 ICPs, and changed consumption profiles should all be subject to Shippers submitting a non-standard profile for a specific period of time, or start-up period in the case of new meters. Statistical checks can still be applied to the revised profiles.
- Missing gas gate data can similarly be replaced by statistical forecast when submitted data is zero or falls outside the statistical test.

By approaching the problem in this way, there is a consistent process applied and no reliance on setting arbitrary triggers for errors. Parties are incentivised to provide non-standard profiles where applicable because that will improve the accuracy of their own balancing position.

We would be happy to discuss this proposal further. Our answers to the specific questions on the proposal are attached.

Yours sincerely

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Submission prepared by: (company name and contact)

QUESTION		COMMENT
Q1:	Should this process to address TOU meter errors be added to the D+1 business rules?	Yes
Q2:	Does the proposed TOU meter error test picks up relevant issues? Do you have any suggestions for improving the test?	Nova proposes using statistical tests rather than setting arbitrary trigger levels.
Q3:	Is the proposed multiplier appropriate?	For small readings a 5x test may be adequate, but for large demands a 2x or 3x test could be more appropriate.
Q4:	Do you think that the proposed modifications are a reasonable approach to dealing with 'real world' ICP shutdown issues? Do you think that the 0.5 and 100/GJ parameters are appropriate?	As per our letter, a shutdown is just another form of non-standard profile and should be treated as such. Setting these parameters may assist, but also complicate the issue.
Q5:	Do you have any suggestions for either improving the proposed modifications or alternative approaches for dealing with this ICP shutdown issue?	Enable shippers to submit a non-standard profile to apply for a given period. This can be defined in terms of confidence intervals for application in statistical models.
Q6:	Do you think that the proposed solution for estimating the gas consumption of a new AG2 ICP is reasonable?	Yes, it is consistent with Nova's approach proposed above.
Q7:	Do you have any suggestions for either improving the proposed approach or for an alternative approach?	As above.
Q8:	Do you think that the proposed solution for estimating the gas consumption of an ICP that has had a permanent, step change in its gas consumption is reasonable?	As above.
Q9:	Do you have any suggestions for either improving the proposed approach or for an alternative approach?	As above.

QUESTION		COMMENT
Q10:	Do you think the threshold for gate injection estimation should be raised to 5000 GJ?	No. The intent is to improve run accuracy rather than minimise manual intervention. It would be more effective to apply statistical tests and correction factors for missing data.
Q12:	Alternatively do you support the alternative approach where the 5000 GJ threshold is limited to morning and weekend D+1 runs with a lower limit of 3000 GJ for the weekday afternoon runs?	This would be preferable to a simple 5,000GJ test, but not as good as a statistical test.
Q13:	Apart from these two options are there any other approaches you propose for improving the automation of the D+1 algorithm while at the same time ensuring it is allocating gas as effectively as reasonably possible?	As above.