

Performance Measures Quarterly Report for the period ending 31 March 2012

1 Summary

This Report provides an update on the performance measures that Gas Industry Co monitors on a regular basis. The purpose of these measures is to track the performance of the Gas (Switching Arrangements) Rules 2008 (the Switching Rules), the Gas (Downstream Reconciliation) Rules 2009 (the Reconciliation Rules), and the Gas Governance (Critical Contingency Management) Regulations 2008 (CCM Regulations), both in terms of activity related to these statutes and the competitive outcomes that they foster.

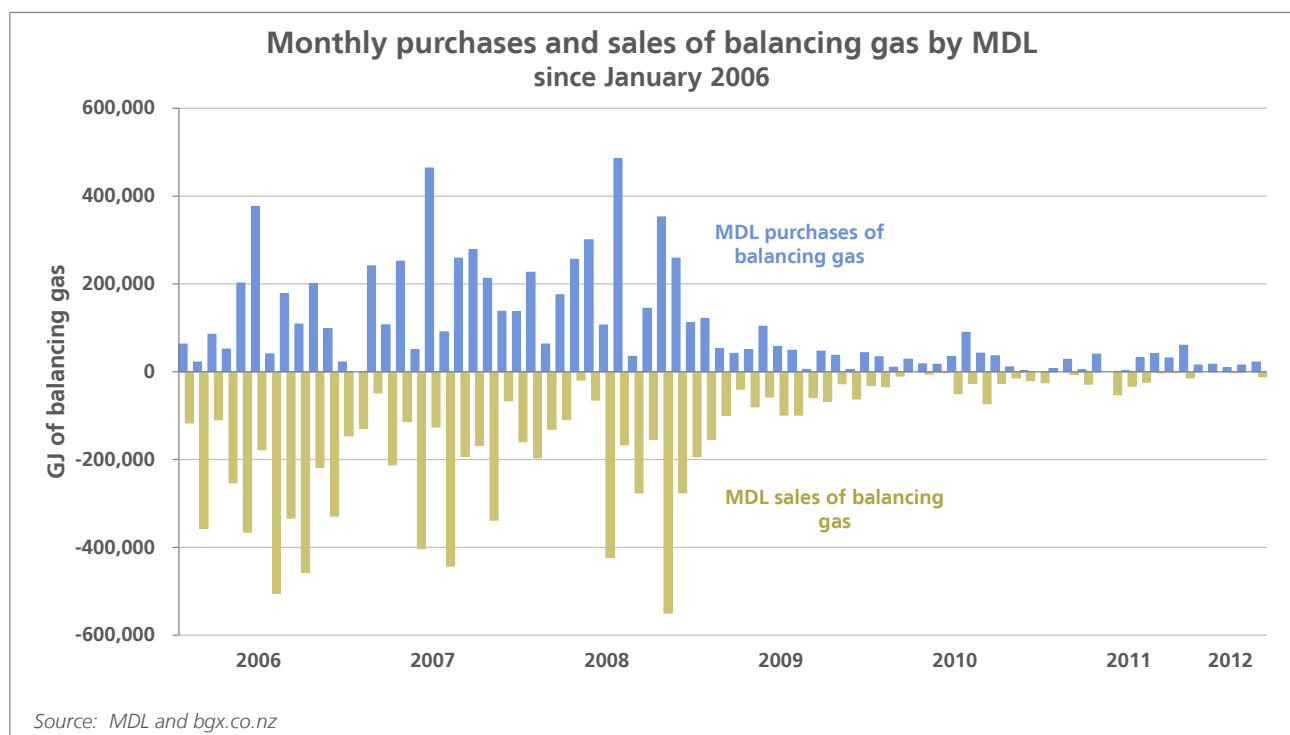
Highlights of the Report:

- Balancing gas volumes are a fraction of what they were prior to 2009. Since January 2011, average balancing gas volumes have been just over 33,000 GJ, a decrease of 92% from the 403,000 GJ monthly average experienced from 2006-2008.
- Switching levels rebounded in March with over 3,700 switches, about 450 more than the rolling 12-month average. The time required to process switches remains at about 6 days, a fraction of the weeks that switching used to take before the inception of the switching rules.
- Despite the increase in switching rates, there have been no major movements in customer market share over the past quarter. Genesis Energy continues to be the largest retailer by number of customers.
- In terms of volume, Nova and OnGas are the largest retailers, each with over 683,000 GJ of allocated gas volumes.
- Volumes of annual unaccounted-for gas (UFG) are about 1.2% of allocated gas volumes on an annual basis. Prior to the introduction of the Reconciliation Rules, the annual percentage of UFG was about 2.5%.
- Consistent with the trend over the past 18 months, the majority of gas customers – over 93% -- are connected to a gate where least six retailers trade.
- There was a critical contingency on 3 March 2012, caused by an unexpected outage of the Pohokura Production Station. Compliance with demand curtailment directions during the event by large consumers was good, and no breaches have been alleged in respect of this event.

2 Balancing gas volumes

The volume of gas in a pipeline relates to the gas pressure in the pipeline and needs to be maintained below the safe operating pressure limit for the pipeline and above the minimum required to maintain the supply of gas to consumers. On the Maui pipeline, pressures will rise or fall as parties who inject gas into the pipeline over- or under-inject and as parties who receive gas from the pipeline under- or over-take relative to their respective scheduled volumes. Managing the gas inventory in a pipeline is referred to as *balancing*. MDL buys and sells balancing gas in order to manage gas volumes and thus maintain gas pressure within safety and operational limits.

Prior to 2008, balancing services were essentially free to holders of legacy Maui gas contracts, but changes implemented at the end of 2008 to the Maui Pipeline Operating Code mean that interconnected parties and gas shippers are now responsible for imbalances that they create. In 2009, MDL instituted the Balancing Gas Exchange, an online platform that displays pipeline balance conditions and enables gas producers and wholesale gas consumers to post offers to buy and sell balancing gas. These two changes appear to have provided gas transmission customers with an incentive to self-balance and greater information on which to base their balancing decisions.



The outcome is the significantly reduced volumes of gas needed to be purchased or sold by MDL to balance the Maui pipeline, as can be seen in the chart above. In each of the calendar years 2006, 2007, and 2008, over 4,600,000 GJ of balancing gas were bought and sold by MDL. In 2009, balancing gas volumes totalled less than 1,500,000; and in 2010, balancing gas volumes were just over 600,000GJ – a decrease of 87% from 2008 volumes. In calendar 2011, balancing volumes

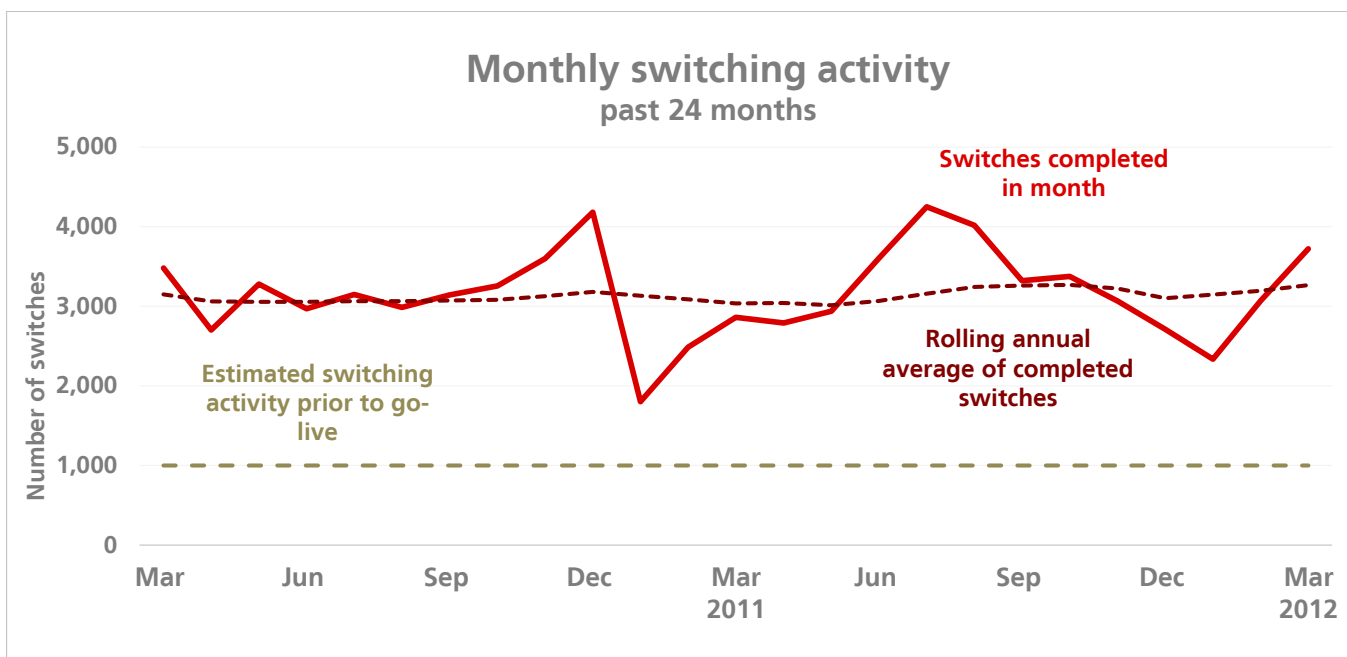
declined again, to less than 440,000 GJ. These low volumes have continued at the beginning of 2012; the average monthly volume since January 2011 is just over 33,000 GJ.

3 Switching performance measures

Monthly switching activity

Switching activity dipped in December 2011 and January 2012, consistent with patterns seen over the holiday season in previous years. Switching rebounded in March; 3,720 switches were recorded in this month, more than the monthly average. The annual rate of switching is about 16%. As a comparison, the electricity switching rate for the year ended March 2012 is about 21%.

Prior to the gas registry going live in March 2009, approximately 1,000 switches were processed on a monthly basis, and the annual churn rate was approximately 4.8%.

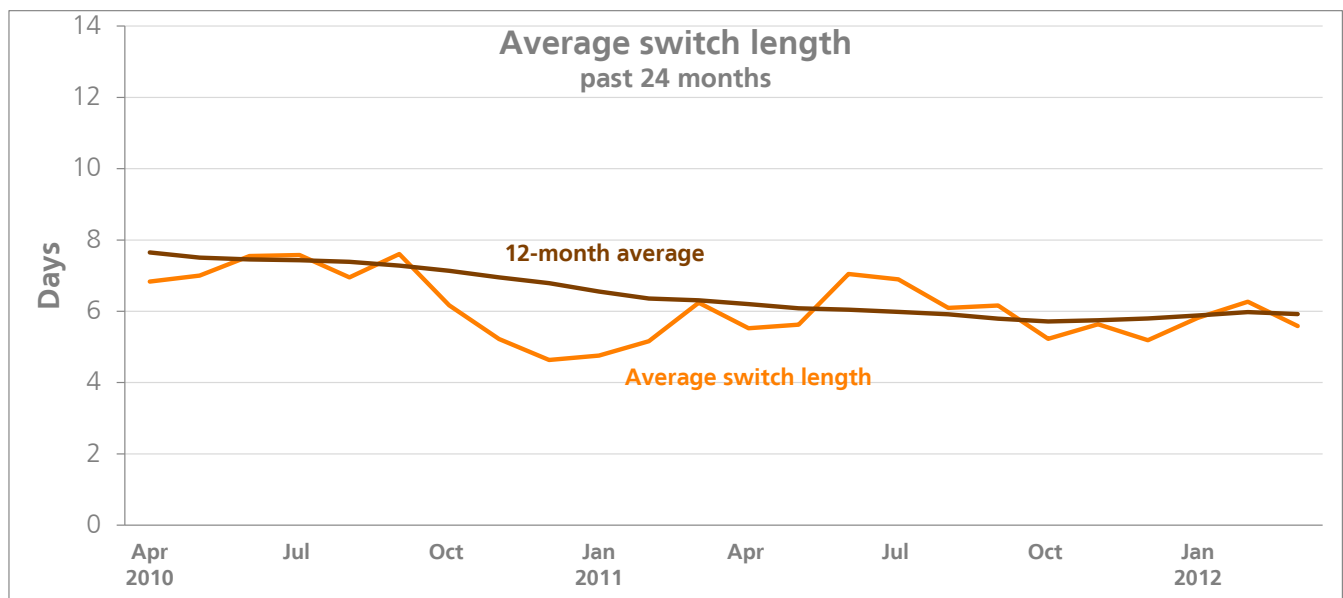


Note that this chart includes only switches that occurred on open-access distribution networks; switches from open-access to bypass networks (or vice versa) would not be recorded as a switch in the Gas Registry.

Time to process switches

The chart below shows the average length of time it has taken to process the switch requests that have been received in a month. The average time to process a switch has consistently fallen in the past two years. The twelve-month rolling average switching time has been just under six days since July of last year. In comparison, switches could take weeks or even months to process prior to the inception of the switching registry.

The downward trend in switching times may be a byproduct of the switching requirements in electricity and is pleasing to see, provided that the costs of the shortened switching times do not outweigh the benefits to consumers.

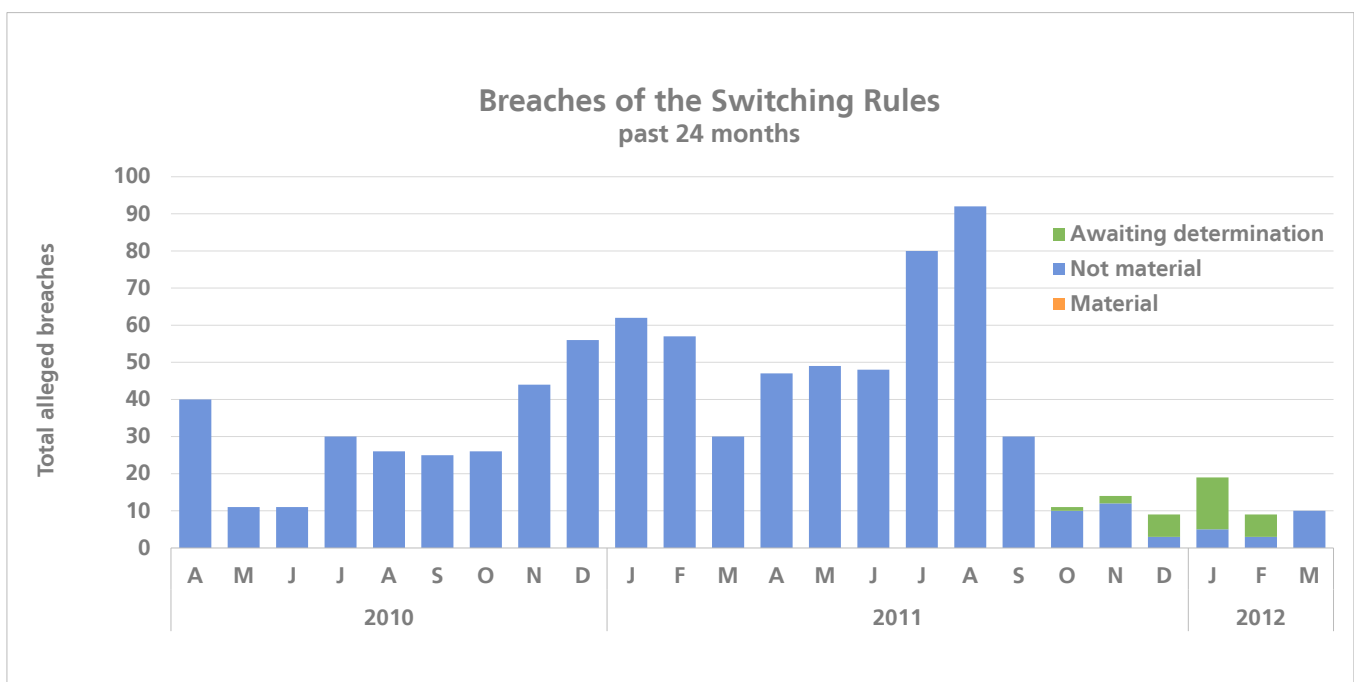


Note that the chart above excludes the transfers from E-Gas to Nova and from Auckland Gas to Nova, all of which went through in less than a day.

Number and severity of breaches of the Switching Rules

In the first year after the inception of the Switching Rules, nearly 5,500 switching breaches were alleged. Many of these breaches can be attributed to unfamiliarity with the Rules. Since that first year, the numbers of switching breaches have fallen significantly. Switching breaches have fallen again since the start of the current gas year; there have been an average of about 11 breaches per month since October 2011.

The Market Administrator has made a number of material determinations in this quarter that are not reflected in the chart below, since, at the time of this report, those material determinations are being finalised for circulation to the participants allegedly in breach and any participants joined to the alleged breaches.



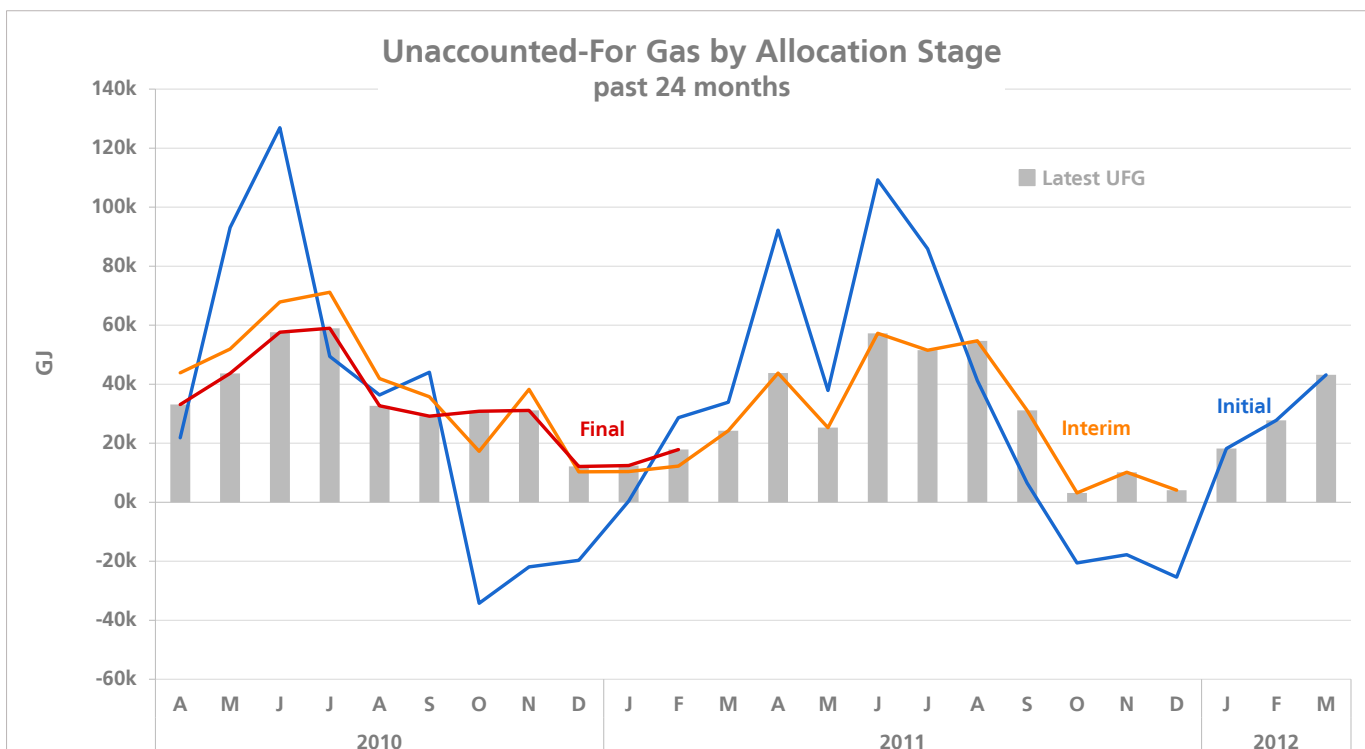
4 Allocation and reconciliation performance measures

Volumes of Unaccounted-for Gas

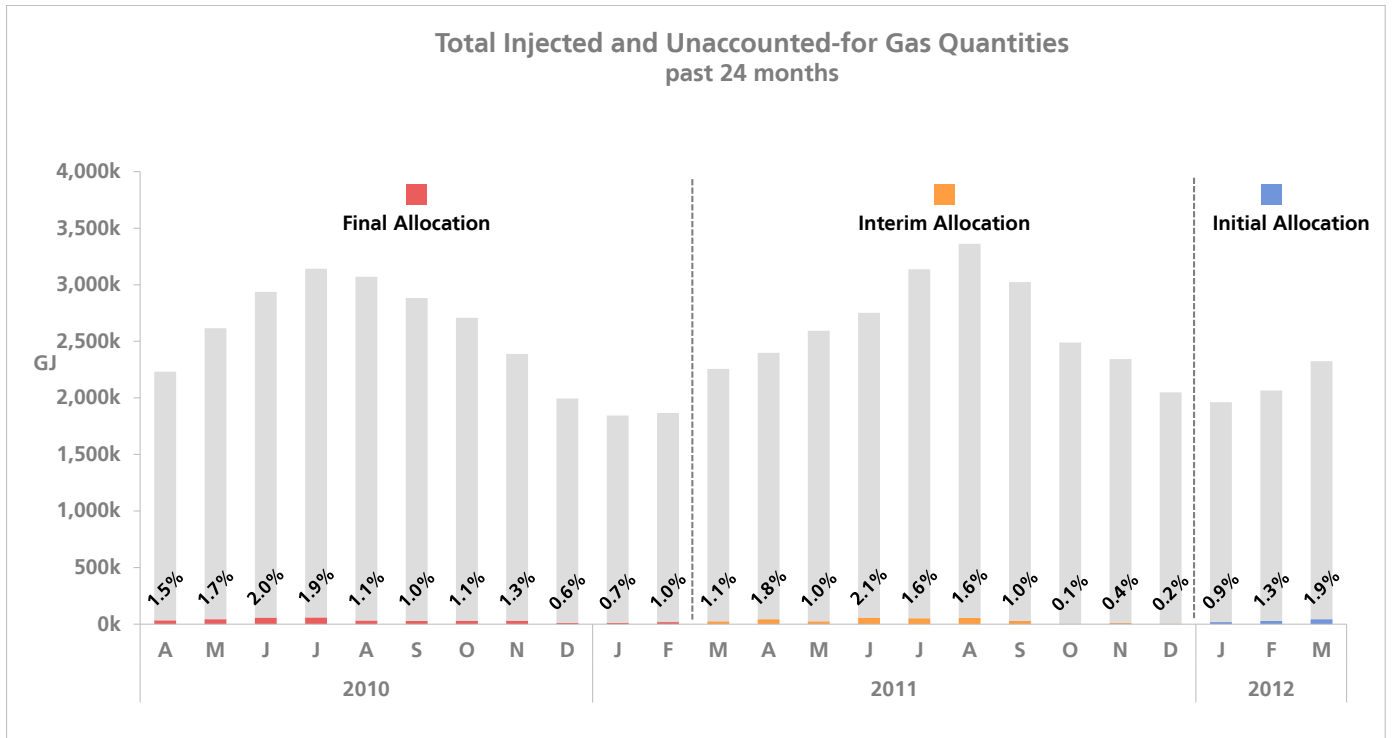
Under the Reconciliation Rules, the amounts of gas that retailers estimate their customers have used are subtracted from the amounts of gas leaving the transmission system. The difference is UFG, which arises from technical losses on the system, metering inaccuracies, and retailer estimation errors. UFG imposes a cost on the market: it is gas that retailers are allocated and must pay for, but cannot sell. Tracking UFG is a way of monitoring these costs and the efficiency of the retail market. This transparency should assist the industry to take steps to reduce UFG where it is efficient to do so.

The chart below compares total UFG quantities by consumption month and allocation stage (initial, interim or final). The grey bars show UFG based on the most recent data available.

Changes in UFG from one allocation stage to another are largely due to mass market retailers' consumption submissions becoming more accurate at later allocation stages. The chart below shows that UFG at the initial stage was negative for October, November, and December of both 2010 and 2011, but subsequent allocations for those months resulted in relatively small amounts of positive UFG. This effect is due to retailers tending to overestimate their customers' consumption in that shoulder period between seasons and then correcting the estimations at the interim and final allocations. Initial UFG for January, February, and March of this year are positive and roughly in line with UFG experienced at the initial in the same months of 2011.

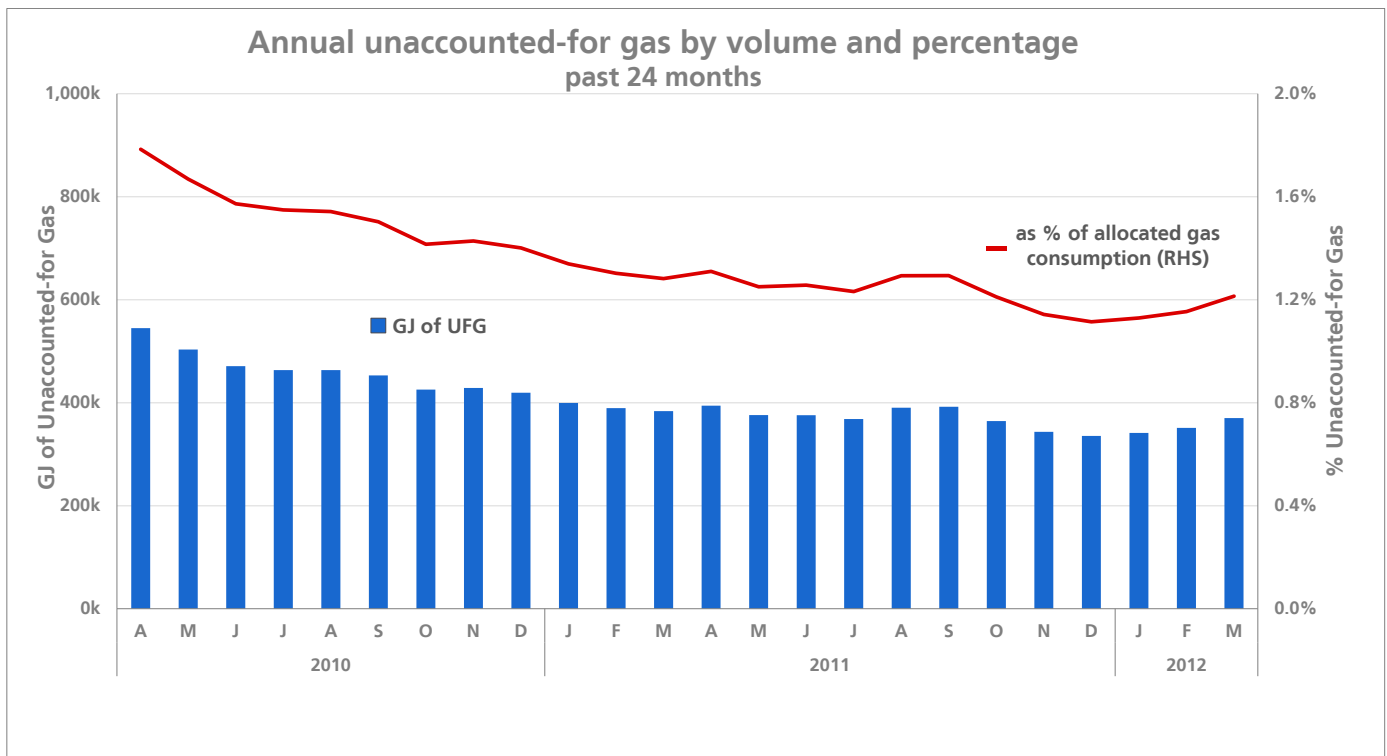


The chart below shows the amount of unaccounted-for gas in comparison to the total amount of allocated gas consumed each month. The grey bars show gas consumption at allocated gas gates, which follows a seasonal pattern: higher in winter and lower in summer. UFG as a percentage of volume follows a similar seasonal pattern.



Another way to think about UFG is the amount recorded over a 12-month period. The chart below shows rolling 12-month UFG figures, both as a GJ total and as a percentage of gas consumed. The information is based on the best data available at the time of publication, so, for example, the March 2012 total is based on three initial allocation results and nine interim results, while the March 2011 total is based on twelve final allocation runs.

The chart shows that annual UFG has declined from about 1.8% of annual consumption at allocated gas gates to about 1.2%.



Accuracy of submission data

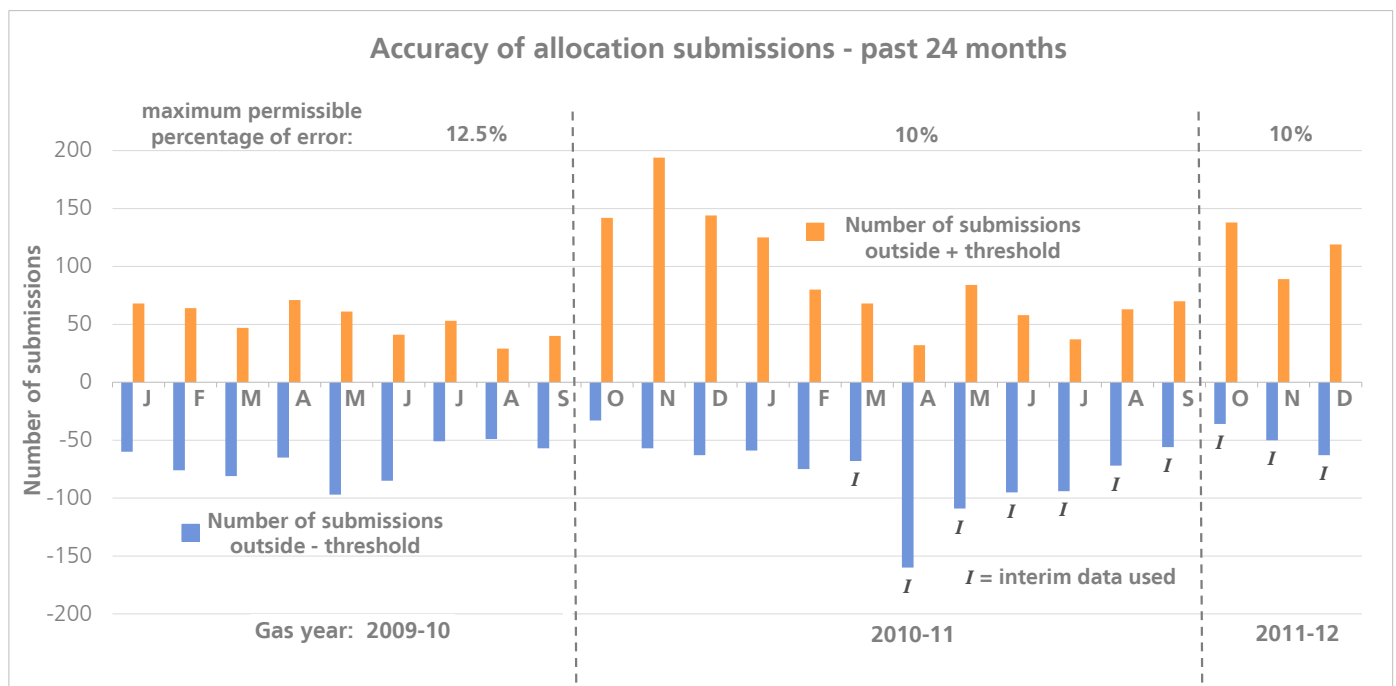
The accuracy of initial submissions is important, as balancing and peaking charges on the Vector transmission system are levied on the basis of initial allocation results and are not subsequently washed up. This means that the balancing costs of the UFG created through inaccurate initial consumption submissions fall onto all retailers at the affected gate. To limit the impact of this effect, the Reconciliation Rules require that initial consumption submissions are within a specified percentage of the final (and most accurate) consumption submissions.

The chart below shows the number of retailer submissions that were outside the maximum permissible error threshold in the last 24 months for which data are available. For this analysis, final submissions were compared to initial allocation submissions for the months they were available (January 2010 – February 2011). Other months use interim submissions (in place of final) for the comparison data and are marked with ‘I’ in the chart below. The percentage of error relevant to the consumption month

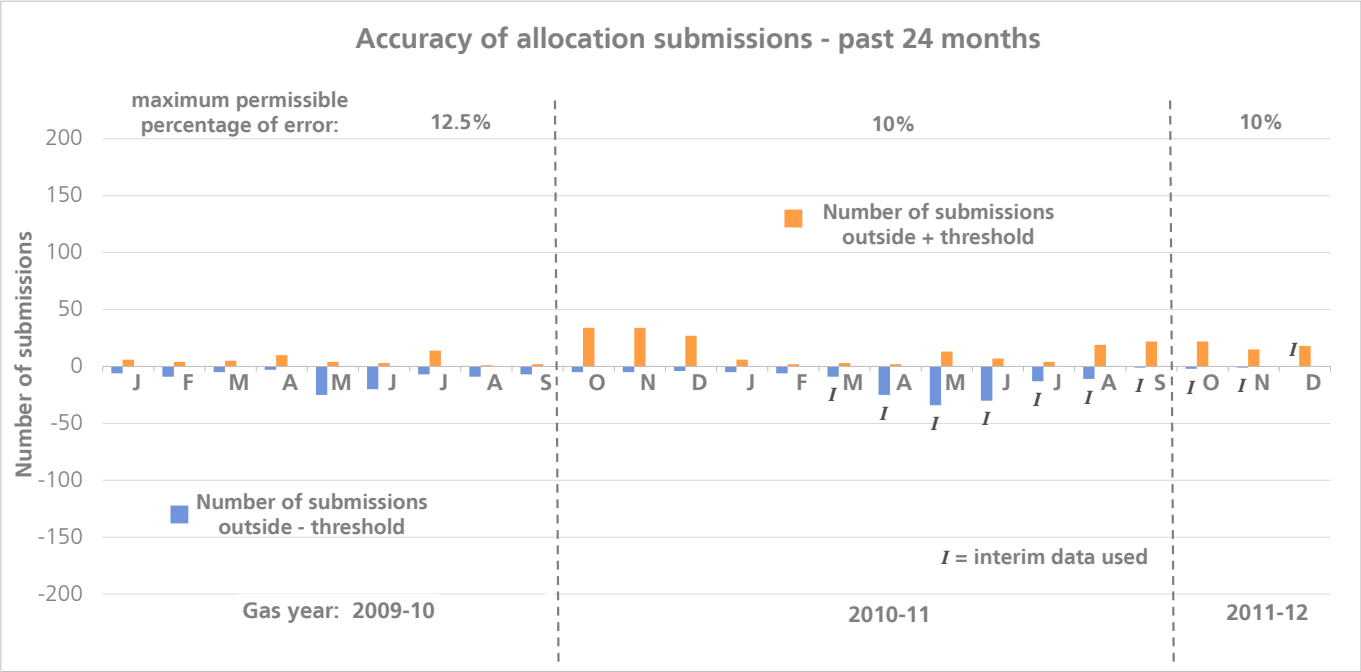
has been used to measure accuracy: 12.5% in the 2009-10 gas year and 10% in both 2010-11 and 2011-12.

October 2010 saw an increase in the number of submissions outside the accuracy threshold, and this increase is noticeable particularly in the number of oversubmissions (orange bars) from October 2010 through February 2011. The oversubmissions at the initial allocation stage for these months are reflected in the negative UFG at the initial allocation shown in the preceding charts. A similar increase can be seen in the 2011-12 gas year.

The number of undersubmissions in the winter months of 2010-11 increased over the same months in the previous year. This effect is shown in the increase in positive UFG in these months.



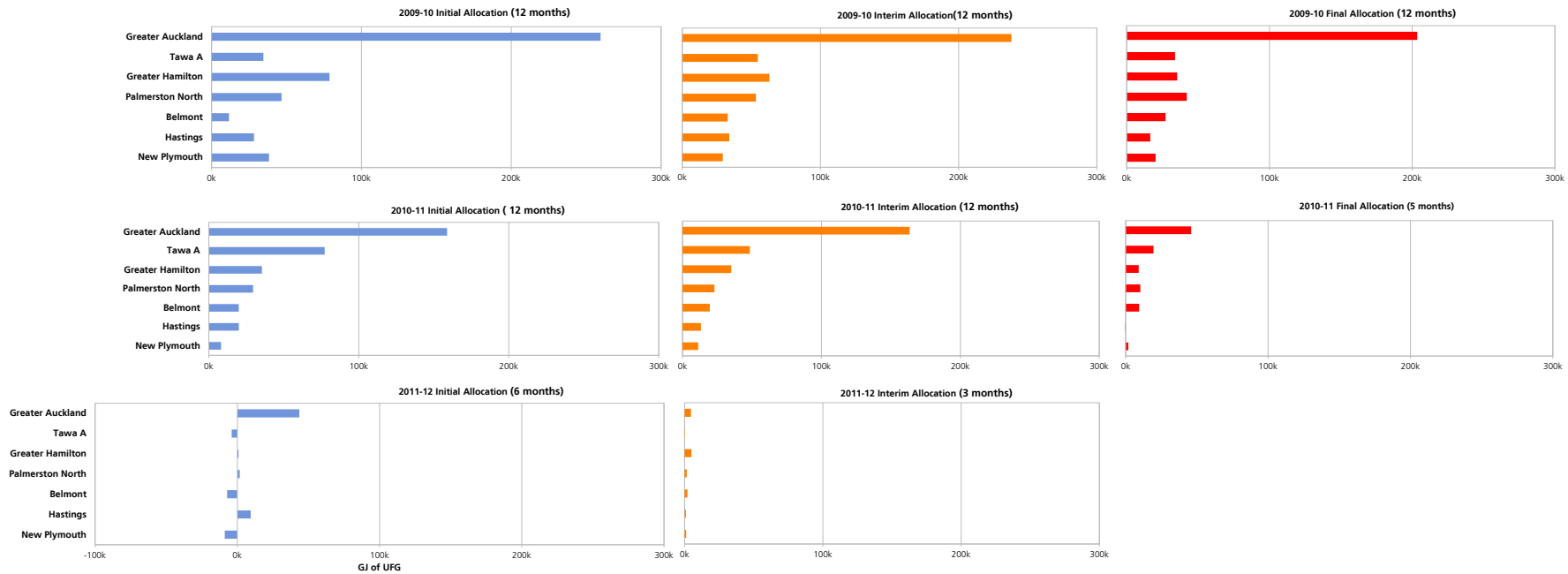
The market administrator uses a volume threshold of 200 GJ as a means of differentiating those breaches that are likely to have had a materially adverse effect on other market participants. The chart below shows the number of accuracy breaches that involve gas quantities larger than 200 GJ. As a comparison of the two charts illustrates, there is a significant proportion of accuracy breaches that have involved less than 200 GJ. Deeming these breaches not material allows industry participants to focus on addressing the harm caused by larger volume estimation errors.



Gas gates where UFG is the highest

Greater Auckland gas gate is consistently the largest contributor of all the gas gates to UFG volumes, followed by Tawa A, Greater Hamilton, Palmerston North, Hastings, and Belmont. This pattern is roughly consistent over all three allocation cycles and across gas years, indicating that UFG is a persistent issue at these gates.

The charts below compare UFG across time and across allocation stages. All allocations have now been performed for the 2009-10 gas year and are shown in the top row below. For the 2010-11 year, shown in the second row, initial and interim allocations have been done for all 12 months; as well as the final allocations for October through February 2011. For the 2011-12 gas year, shown in the third row, initial allocations for October through March 2012 and interim allocations for October through December 2011 have been performed. As can be seen from the charts, there is a trend of decreasing UFG both from year to year and across allocation stages.



Audits commissioned

Event audits

There have been no event audits commissioned in the past quarter.

Performance audits

No performance audits of retailers have been commissioned this quarter.

A performance audit of the allocation agent was finalised and published in February this year. There were two specific areas of concern that the auditor identified:

- The auditor expressed concern about the completeness of the disaster planning arrangements in place for the allocation agent function. Gas Industry Co is working with the allocation agent to investigate options for improving allocation disaster recovery planning.
- The allocation process would be improved by using the gas registry to determine for each gate which retailer should be submitting which consumption files for which allocation groups each day; it could also be used to provide gas gate static information for the allocation process. This would allow the allocation system to accept only valid inputs and identify missing submissions with greater accuracy. This would provide much higher certainty of the input consumption information, provide a readily auditable trail (and reporting if desired) of retailer compliance, and reduce the present reliance on human checking of reported potential submission errors.

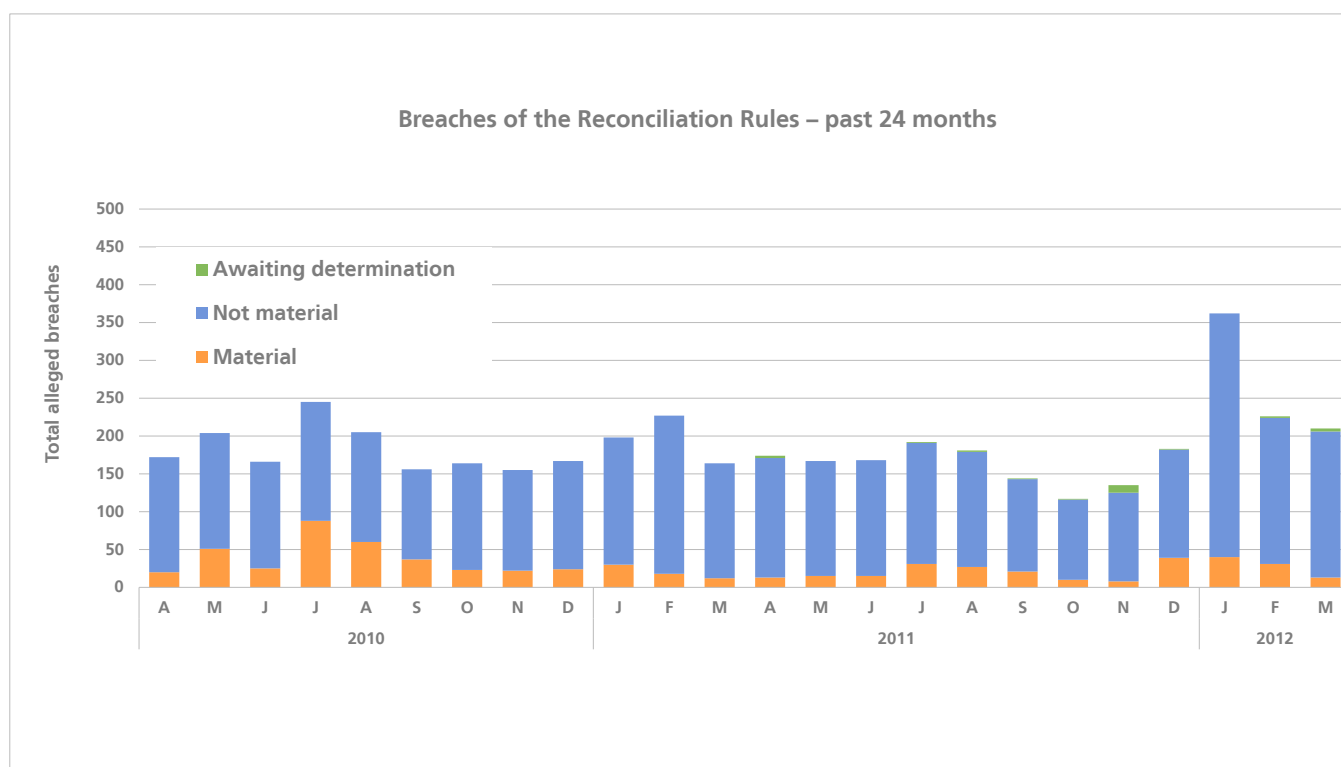
This recommendation is being considered as part of the review of the Downstream Reconciliation Rules (which will entail system changes to the allocation system).

Number and severity of breaches of the Reconciliation Rules

Over 80% of breaches alleged under the Reconciliation Rules relate to rule 37, the rule that requires the accuracy of consumption information provided at the initial allocation stage to be within a specified tolerance level of the information provided at the final allocation stage.

The Market Administrator has recently determined a number of rule 37 breaches in accordance with the *Market Administrator Guideline note rule 37 – materiality of rule 37.2 breaches (Downstream Reconciliation)*.¹ These determinations are about to be sent to participants, and the chart below reflects the determinations made.

Last year, the Market Investigator worked with Gas Industry Co to effect a settlement of a group of material breaches of rule 37. It may be possible to adopt a similar process for the recently determined group of rule 37 breaches.

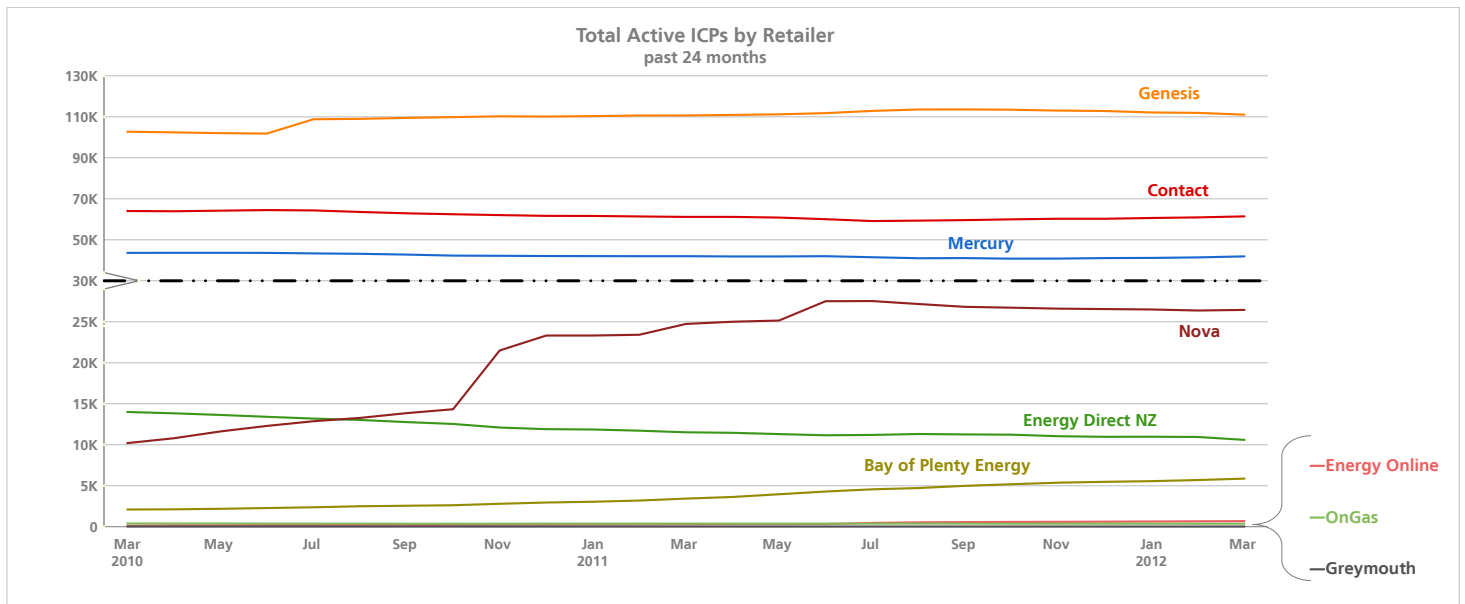


¹ Available at http://gasindustry.co.nz/sites/default/files/u254/Market_Administrator_Guideline_Note_37_154636.1.pdf

5 Market competition performance measures

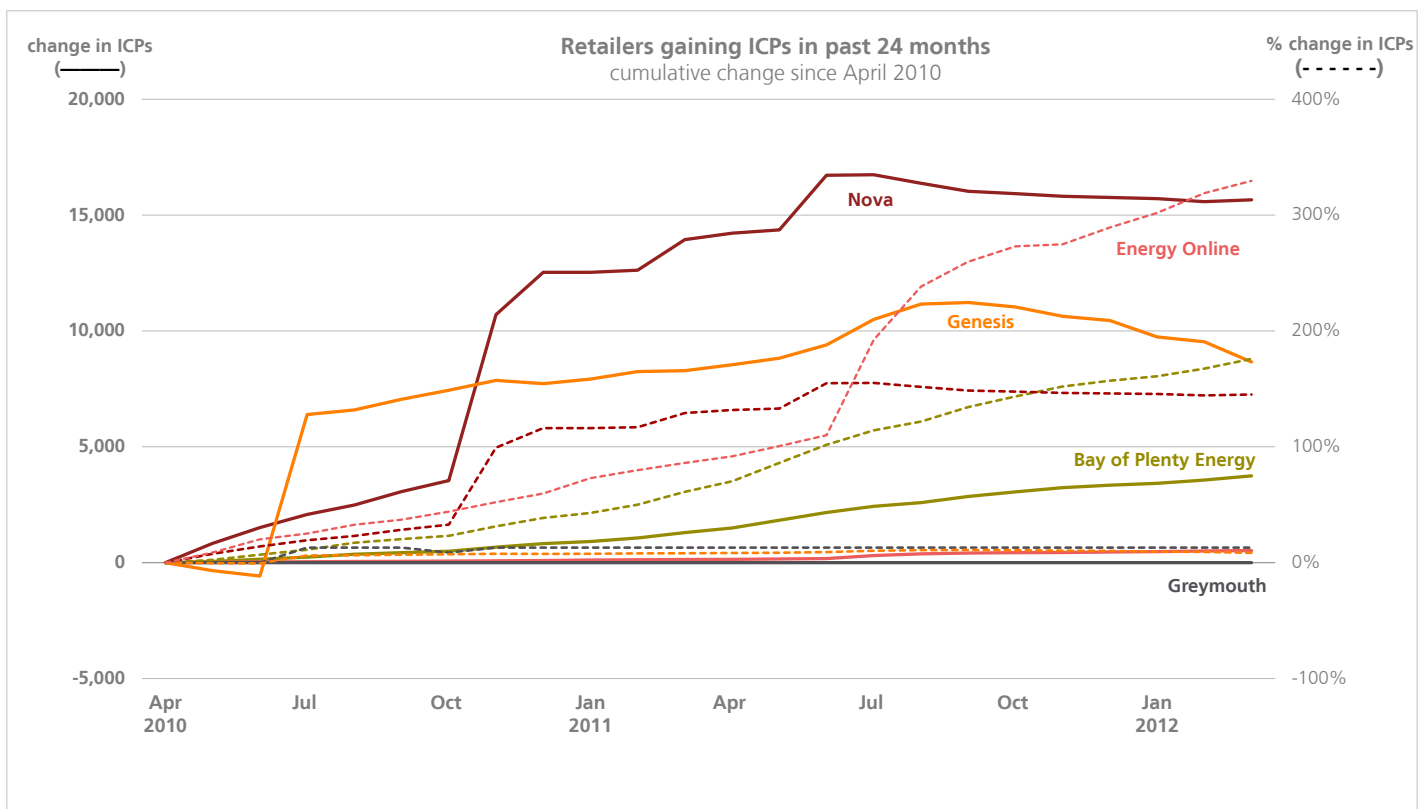
Market share of ICPs by retailer

Market share of ICPs has again been relatively constant over the past quarter, as illustrated by the chart below. Nova Energy's step changes are a result of acquiring the E-Gas customer base in November 2010 and amalgamating its Auckland Gas brand in December 2010 and June 2011. The other movements in market share are due to customer switching.

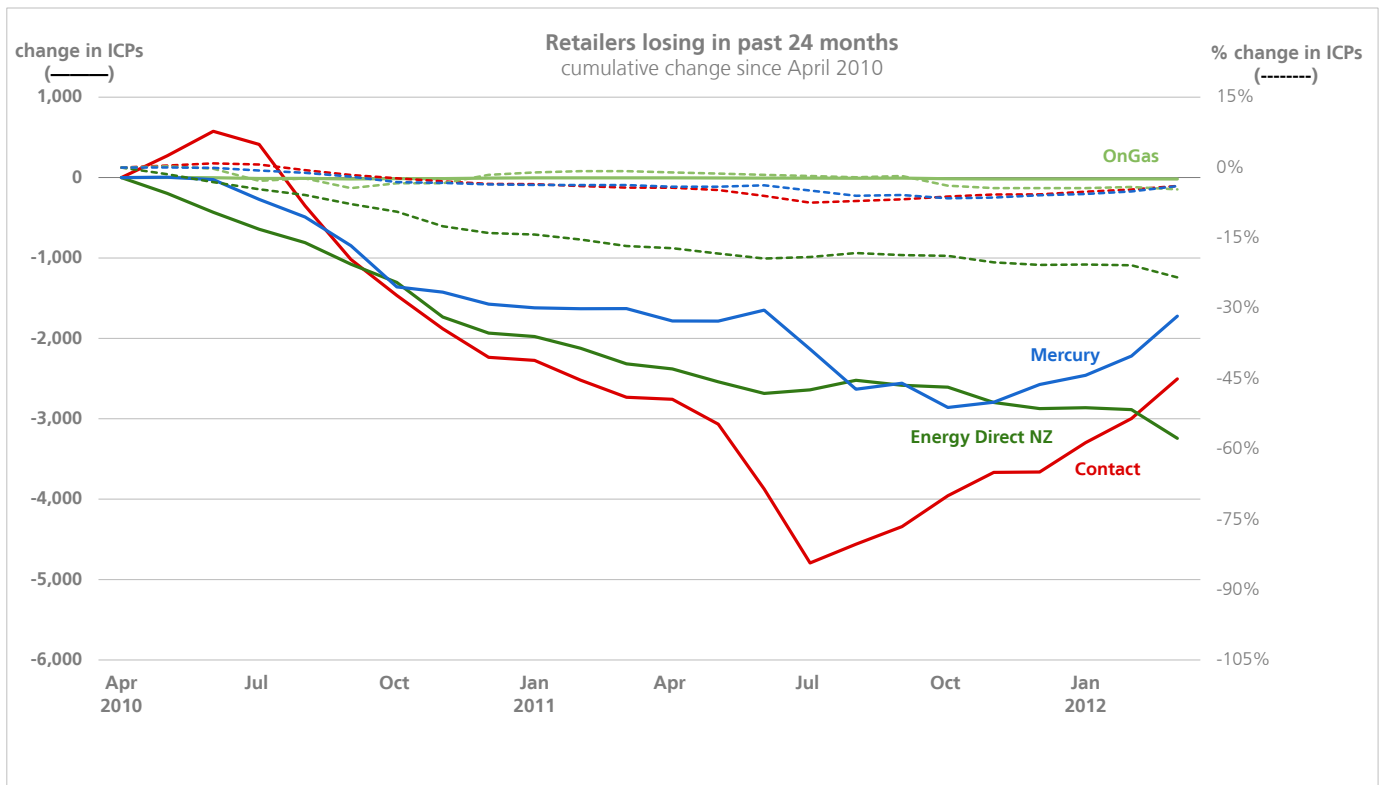


The two charts below are drawn from the same data set. The solid lines represent the change in numbers of ICPs, and the dashed lines show the percentage change in ICPs relative to April 2010. The first chart includes retailers who have experienced net gains in ICPs in the past two years, and the second includes retailers who overall have lost ICPs in the same timeframe.

In percentage terms, Energy Online, a retail brand of Genesis Energy, has grown by over 300% in the past two years, adding 524 ICPs to its customer base. Bay of Plenty Energy has grown by over 170% with the addition of over 3,700 ICPs. Genesis increased its customer base by over 11,000 ICPs, but has lost some of those gains recently. Nova's customer numbers have been boosted by the acquisition of E-Gas, amalgamation of the Auckland Gas brand, and organic growth.



The chart below shows the retailers who have lost market share in ICP numbers in the past two years. Although Mercury and Contact have overall lost customers in the past two years, both have made net gains in customer numbers since about mid-last year.



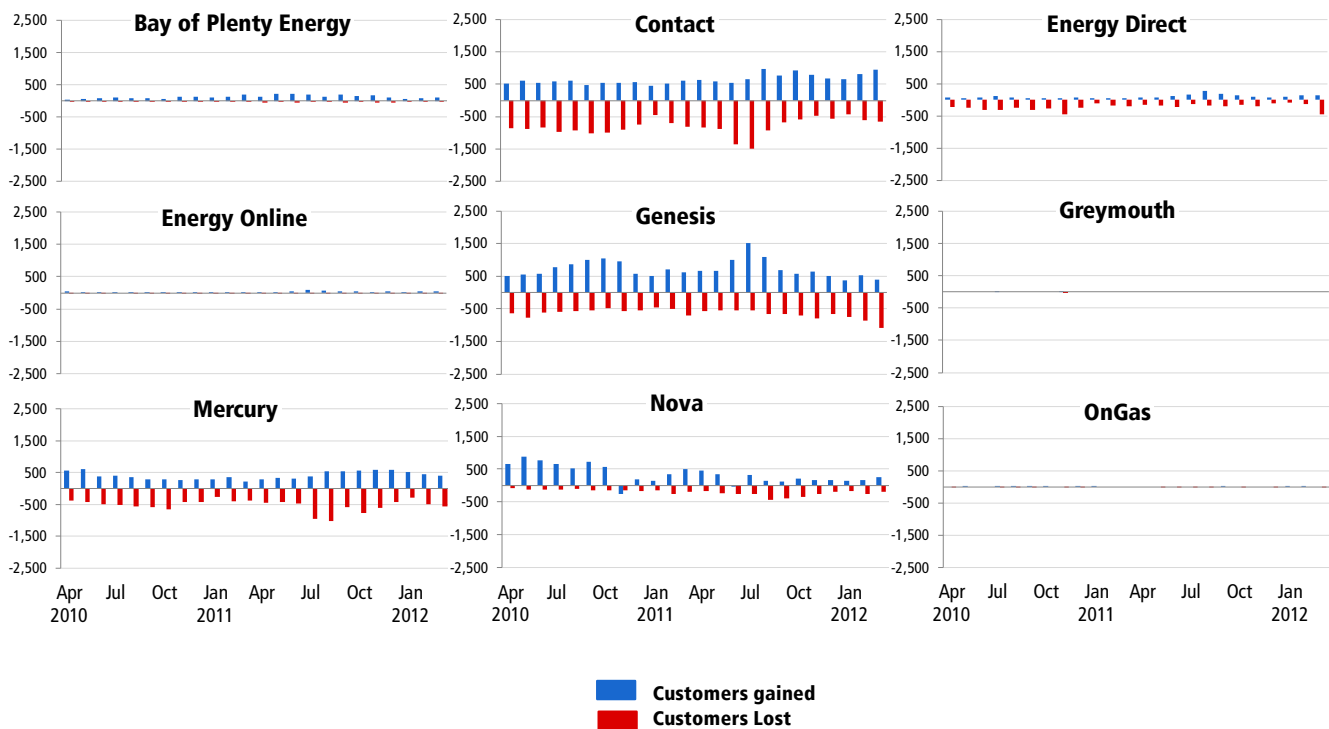
Note that all three of the ICP share charts above include data from ICPs on open-access distribution networks only; information about ICPs on bypass networks is not available in the Gas Registry.

Switching activity by retailer

This chart shows the numbers of ICPs gained and lost by retailers over the past two years. The blue bars show the number of customers gained by the retailer each month, and the red bars show the number of customers lost.

As shown by these charts, although the net changes in number of customer ICPs may not change significantly from month to month for some retailers, there is a lot of underlying switching activity, particularly for the mass market retailers Contact, Genesis, and Mercury. Note that these charts exclude the bulk transfer of 6,348 ICPs from E-Gas to Nova in November 2010; they also exclude the transfer from Auckland Gas to Nova of 1,478 ICPs in December 2010 and 2,243 ICPs in June 2011.

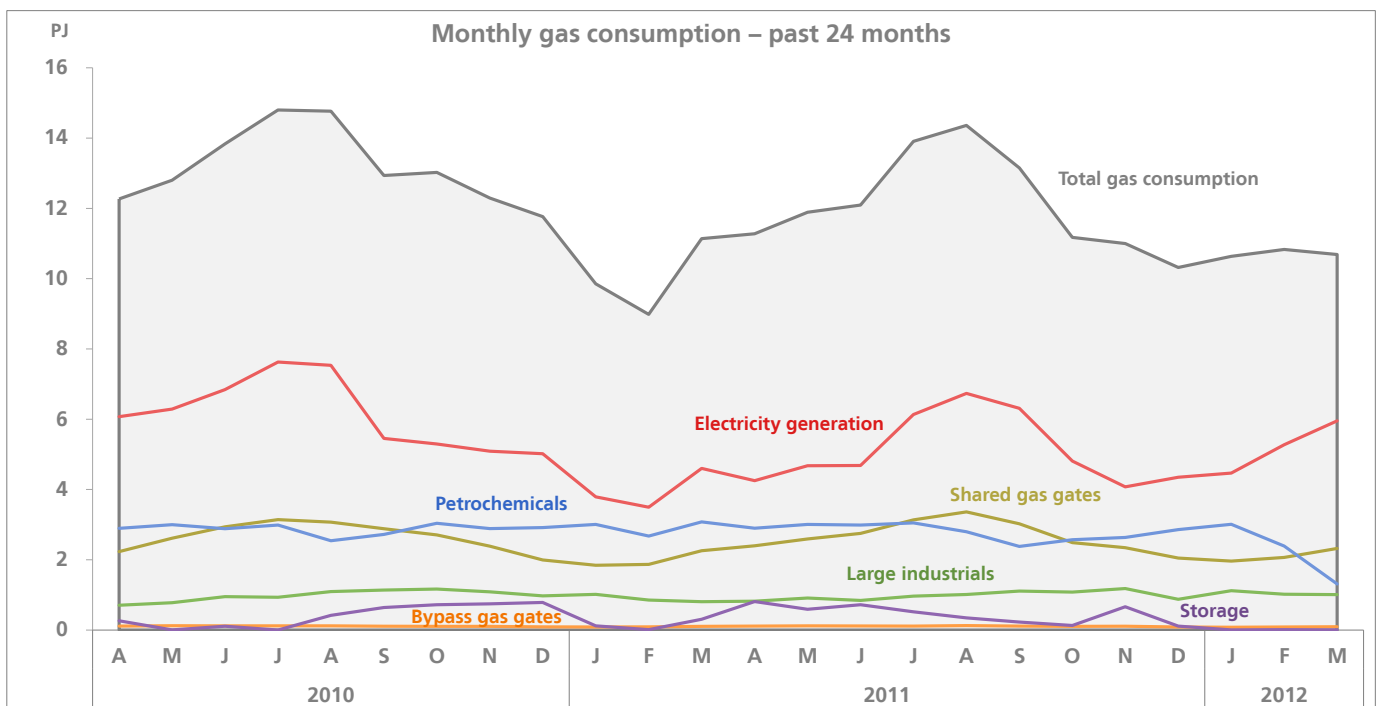
Switching activity by retailer



Total gas volumes

The chart below shows the total amount of gas consumed over the past two years by all gas users. The top grey line shows total consumption; the coloured lines provide a breakdown by type of use.

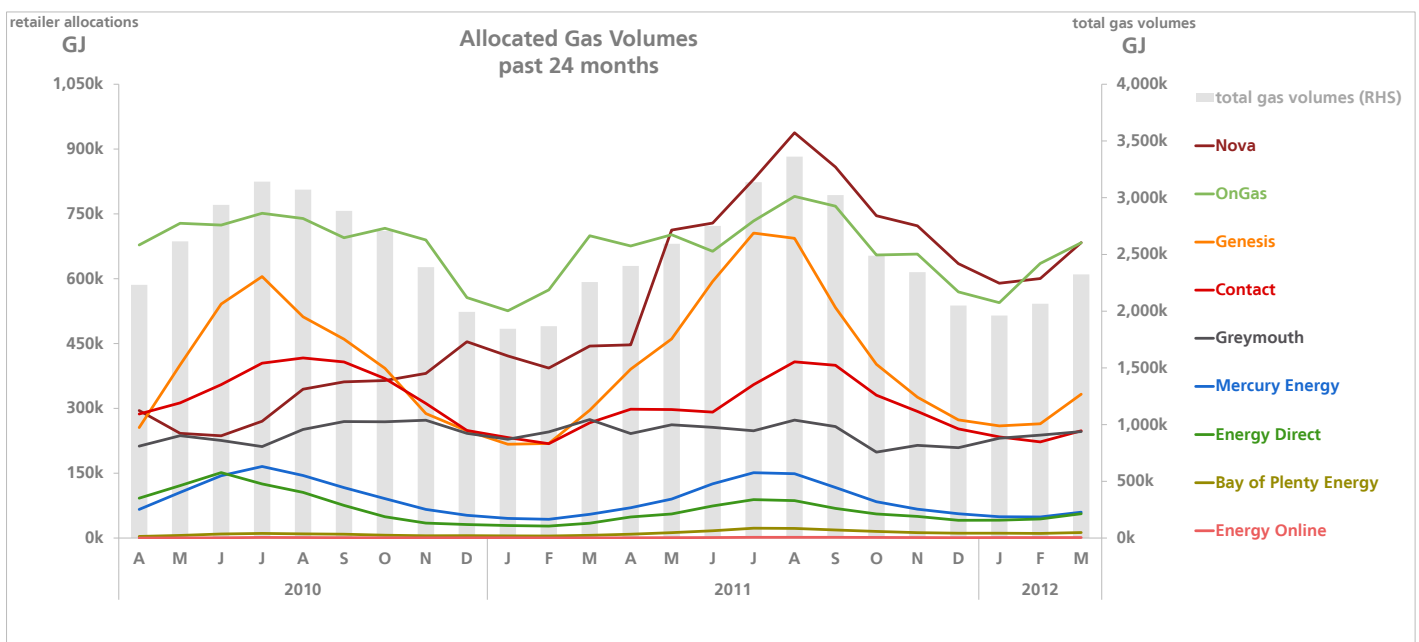
- The red line shows the seasonal peaks and troughs in gas used for thermal electricity generation.
- Consumption for petrochemicals, in blue, is relatively constant, as is usage by large industrials (in green). The decline in petrochemical gas consumption in March is due to the scheduled two-week outage of Pohokura for maintenance and the unexpected trip of the Pohokura production station at the beginning of the month.
- The purple line shows the volumes of gas going to storage.
- The orange line represents gas used by consumers connected to the private pipelines owned by Nova.
- The tan line shows the amount of gas used by customers connected to shared gas gates. This represents the majority of commercial and residential customers. There is a seasonality trend to the consumption, higher in winter and lower in summer. These allocated gas volumes are broken down by retailer in the next section.



Allocated gas volumes

This chart shows the gas volumes allocated to retailers at shared gas gates over the past two years. This is gas consumed by industrial, commercial, and residential customers, but it excludes gas volumes from direct connect gas gates; that is, from gas gates that supply a single customer directly from the transmission system. For this reason, gas volumes supplied through direct connect gas gates to such industrial sites as thermal power stations, oil refinery, and paper and chemical factories are not included in the chart below.

In May last year, Nova Energy overtook OnGas in terms of the largest share of allocated gas. This increase reflects the increase in Nova's customer base, through its acquisition of E-Gas, amalgamation of Auckland Gas, and organic growth. In the past two months, allocated volumes for Nova and OnGas have been similar. Genesis, the third largest retailer by volume, has a load profile that peaks in winter and troughs during the summer. Contact, Mercury, and Energy Direct all show similar – but less pronounced – winter peaking patterns. Greymouth's share of allocated gas, in contrast, is relatively steady throughout the year, reflecting their position as largely as supplier to industrial loads.

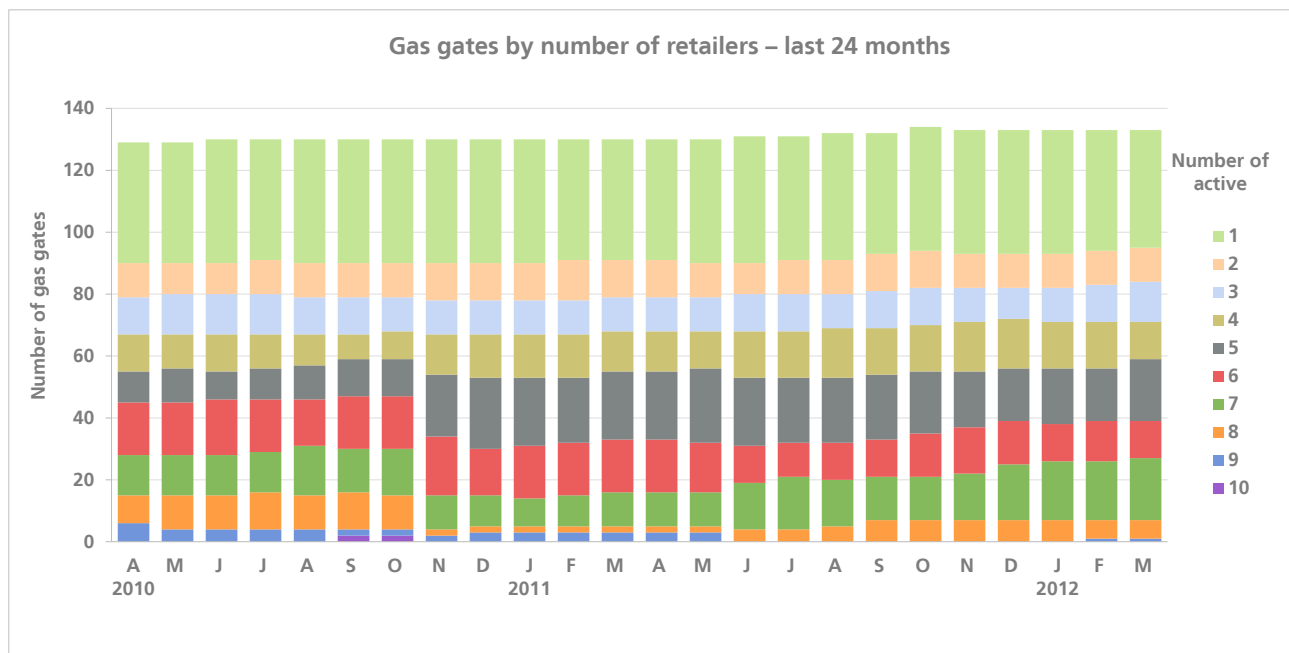


The data are from a mix of allocation stages: Final through February 2011; Interim for March 2011 through December 2011; and Initial for January through March 2012.

Gas gates by number of retailers

This chart shows, by month, numbers of gas gates by the number of active retailers. The greater the number of retailers that trade at a gas gate, the greater the potential competition for customers is.

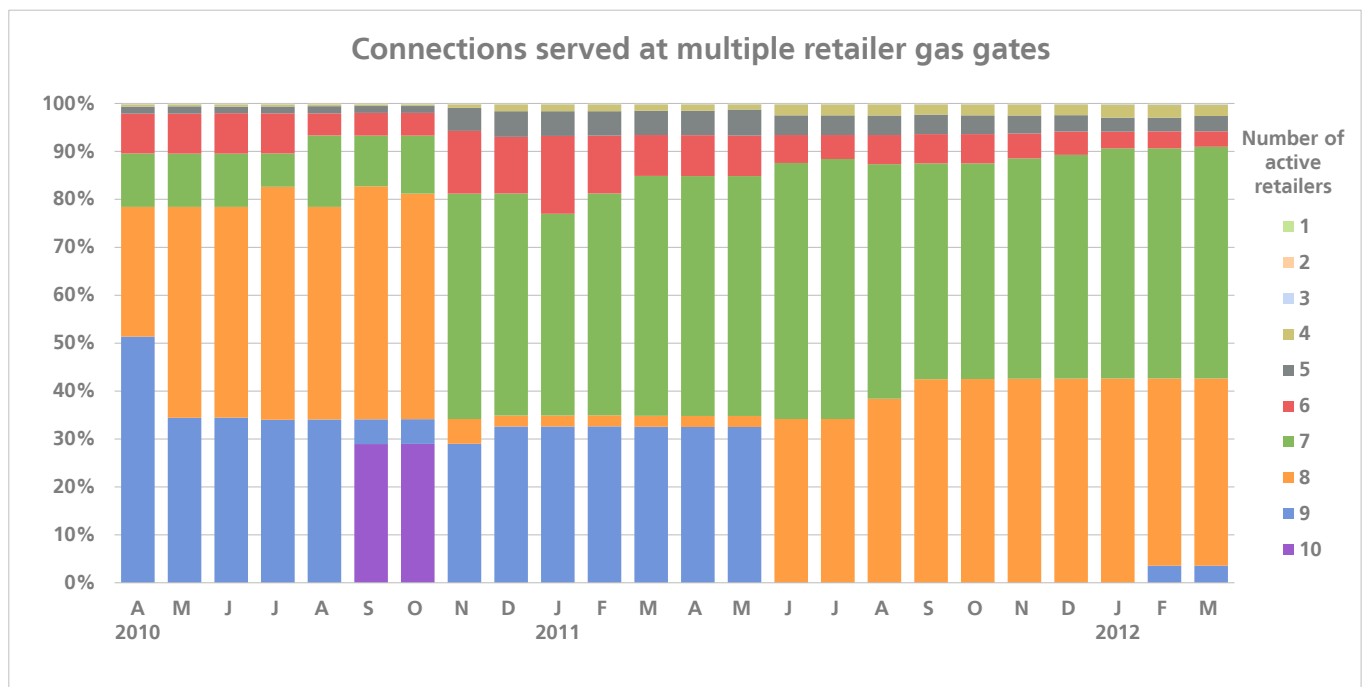
The chart shows that there has been a slight increase in retailers' activity at gas gates, following the amalgamation of Auckland Gas into the Nova Gas brand in 2011 and the exit from the market of E-Gas in 2010. As an example, in March of this year, 59 gas gates had five or more retailers operating at them, the same number as in October 2010, prior to the E-Gas liquidation. Likewise, the number of gas gates at which six or more retailers trade has increased from 30 in late 2010 to 39 as of February 2012.



Connections served by multiple retailers

This chart plots the proportion of gas customers who are served from the gas gates in the chart above; that is, customers served at gas gates where multiple retailers trade. As with the previous chart, the acquisition of E-Gas and the amalgamation of Auckland Gas have produced step changes in the data.

The chart shows that, for the first time since last May there are a number of customers connected to a gas gate at which all nine retailers trade. (The gate is Papakura, in the Auckland region.) Consistent with the trend over the past 18 months, the majority of gas customers – over 93% -- are connected to a gate where least six retailers trade.



Note that the above chart includes data from ICPs on open-access distribution networks only; information about ICPs on bypass networks is not available in the Gas Registry.

6 Critical Contingency Management performance measures

There was one critical contingency in the past quarter. On Saturday 03 March 2012, an unplanned outage of the Pohokura Production Station occurred, causing a complete loss of supply to the Ngatimaru Road and Tikorangi 2 receipt points, as well as a reduction in supply to the Tikorangi receipt point. A critical contingency was declared at 12:48. During the contingency, the Critical Contingency Operator ordered the demand curtailment of bands 0, 1a, and 1b – gas storage, thermal generation plants, and petrochemical production facilities.

Supply from Pohokura Production Station was able to restart late in the afternoon of the same day and was fully restored later that evening. Curtailed demand was restored at 22:00, and the critical contingency was terminated at 23:30.

In the Incident Report, the Critical Contingency Operator² noted that compliance with demand curtailment direction by large consumers was good. The Performance Report recommended a change in the way contingency notices are conveyed to Methanex and Ballance Agri-Nutrients during a contingency and the continued advancement of recommendations made in relation to the Maui outage incident in October of last year. These recommendations will be considered as part of Gas Industry Co's review of the Critical Contingency Management Regulations, which is ongoing.

Breach notices

March critical contingency

No breach notices have been received in respect of the March critical contingency.

October critical contingency

The Market Administrator is close to issuing determinations on the three existing breach allegations that arose from the Maui pipeline outage, after considering responses from affected parties. Given that these breaches are the first to be alleged with respect to the Critical Contingency Management Regulations, the Market Administrator has been particularly careful to ensure that all aspects of these breaches have been thoroughly considered.

² Incident and Performance reports relating to the critical contingency can be found on the Critical Contingency Operator website at <https://www.oatis.co.nz>; (follow the CCO link from the home page).