GAS INDUSTRY COMPANY LIMITED

Subject	**Gas (Downstream Reconciliation) Rules 2008**
	Guideline note for rules 34 – 37: historical and forward estimates, and seasonal adjustments for historical estimates
Version	**1.1**
Date	**1 June 2013**

1.   Introduction

1.1   Rules 34 – 37 of the Gas (Downstream Reconciliation) Rules 2008 ("the Rules") set out the process surrounding the use of *historical estimates* and *forward estimates* in respect of consumption information for allocation groups 3 to 6.

1.2   The purpose of rules 34 – 37 is to estimate consumption within a *consumption period*. This note provides guidance on how those rules are to be given effect by allocation participants.

1.3   This note is explanatory in nature and is not legally binding. It needs to be read in conjunction with the Rules and the general approach set out in this note in no way reduces the requirement upon participants to know and comply with their obligations under the Rules. This note may be amended from time to time.

2.   Terminology

2.1   In this guideline note words have the same meaning as in the Rules. Additionally:

(a)   "*Meter read period*" means the period between two consecutive *validated register readings* (ie meter *register readings* which have been validated by the retailer).

(b)   "*Profiled consumption*" means the sum of the applicable registered profiled consumption (using a static deemed profile or a dynamic deemed profile), the sum of the applicable *seasonal adjustment daily shape values* (*SADSVs*), or, where there is no profile and no SADSVs, consumption profiled via a retailer's own seasonal shape methodology or flat straight-line profile.

3.   Application of rule 34

3.1   Under rule 34, retailers are to use *historical estimates* and/or *forward estimate*s, as applicable, when preparing consumption information in respect of allocation groups 3 to 6 for submission to the allocation agent. Consumption information submitted for a *consumption period* may contain a combination of both *historical estimates* and/or *forward estimate*s.

4.   Application of rule 35

4.1   Rule 35 explains the methodology to be followed by retailers in calculating *historical estimates*.

4.2   *Rule 35.1 – definition of historical estimate*

(a)   "*Historical estimates*" for ICPs at an allocated gas gate are derived by applying to the gas consumption quantity for the *meter read period* either:

　　o   the applicable registered deemed profile; or

　　o   if no applicable registered deemed profile exists, the *SADSVs* for that *consumption period* or part of the *consumption period* (subject to the *SADSVs* being available for the *consumption period*).

(b)   For the submission of consumption information for an allocation, a *historical estimate* is to be calculated by a retailer for an ICP at an allocated gas gate if a *validated register reading* occurs during the *consumption period* being allocated and up until the date when initial consumption information must be provided to the allocation agent ie up until the fourth business day of the month following the consumption period. (In practice, a *validated register reading* will need to have occurred sufficiently prior to the deadline for the submission of the initial consumption information to allow enough time to validate the *register reading* and to calculate a *historical estimate* for the ICP for the *consumption period* being allocated).

(c)   A *forward estimate* is to be used if no *validated register reading* occurs during the *consumption period* being allocated and up until the date when initial consumption information must be provided to the allocation agent (see section 5 – "Application of rule 36").

(d)   By way of example (**Example A**):

•   A retailer's system may require that any validated register reading (to be used in historical estimate calculations for submission to the allocation agent) be performed no later than three business days prior to the deadline for the submission of consumption information.

- If the retailer is submitting October 2012 consumption information to the allocation agent in November 2012 for initial allocation, and a validated register reading occurs on Sunday 2nd November, then that retailer is able to apply its validation processes and calculate a historical estimate using that validated register reading for submission to the allocation agent by midday Thursday 6th November 2012.

- The retailer is to calculate a historical estimate for those ICPs for which it receives a validated register reading between 1st October 2012 and 2nd November 2012.

(e)   For the submission of consumption information for the interim or final allocation, a *historical estimate* is to be calculated by a retailer for an ICP at an allocated gas gate if a *validated register reading* occurs prior to the date when interim or final (as applicable) consumption information must be provided to the allocation agent.

4.3   <u>Rule 35.2.1 – a meter read period spans an entire consumption period</u>

(a)   Where the period between any two consecutive *validated register readings* encompasses an entire consumption period, the *historical estimate* is calculated using the following methodology:

- the total profiled consumption at the allocated gas gate for the consumption period is divided by the total profiled consumption at the allocated gas gate for the period of the meter reading. This gives the proportion of profiled consumption at the allocated gas gate for the consumption period vis-à-vis the meter read period;

- the ICP's gas consumption quantity for the meter read period is then multiplied by the ratio calculated above, to determine the ICP's gas consumption for the consumption period.

(b)   An example of the process is as follows (**Example B**):
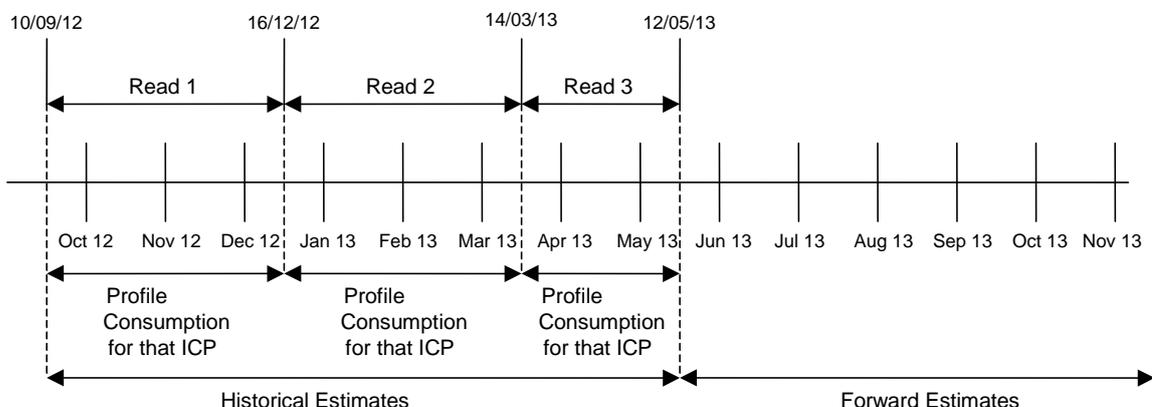
Historical Estimate (April 2013)

Read *3* (15/03/13 to 12/05/13)   x   **Profiled Consumption (Apr 2013)**
Profiled Consumption
(15/03/13 to 12/05/013)

(c) This process will tend to be applied when calculating *historical estimates* for interim and final allocations rather than for initial allocations.

4.4 <u>Rule 35.2.2 – a meter read period spans part of a consumption period</u>

(a) Where only part of a consumption period falls within a meter read period, then the historical estimate is calculated using the following methodology:

Step 1 (First part of consumption period)

- the total *profiled consumption* at the allocated gas gate for the first part of the *consumption period* is divided by the total *profiled consumption* at the allocated gas gate for the *meter read period* pertaining to the first part of the *consumption period*. This gives the proportion of *profiled consumption* at the allocated gas gate for the first part of the *consumption period* vis-à-vis the *meter read period*;

- the ICP's gas consumption quantity for the *meter read period* pertaining to the first part of the *consumption period* is then multiplied by the ratio calculated above, to determine the ICP's gas consumption for the first part of the *consumption period*.

Step 2 (Second part of consumption period)

- the total profiled consumption at the allocated gas gate for the second part of the consumption period / month is divided by the total profiled consumption at the allocated gas gate for the meter read period pertaining to the second part of the consumption period. This gives the proportion of profiled consumption at the allocated gas gate for the second part of the consumption period vis-à-vis the meter read period;

- the ICP's gas consumption quantity for the meter read period pertaining to the second part of the consumption period is then multiplied by the ratio calculated above, to determine the ICP's gas consumption for the second part of the consumption period.

Step 3 (Total consumption period)

- the two quantities calculated under each of the steps above are then summed to give the ICP's gas consumption for the consumption period.

(b) An example of the process is as follows (**Example C**):
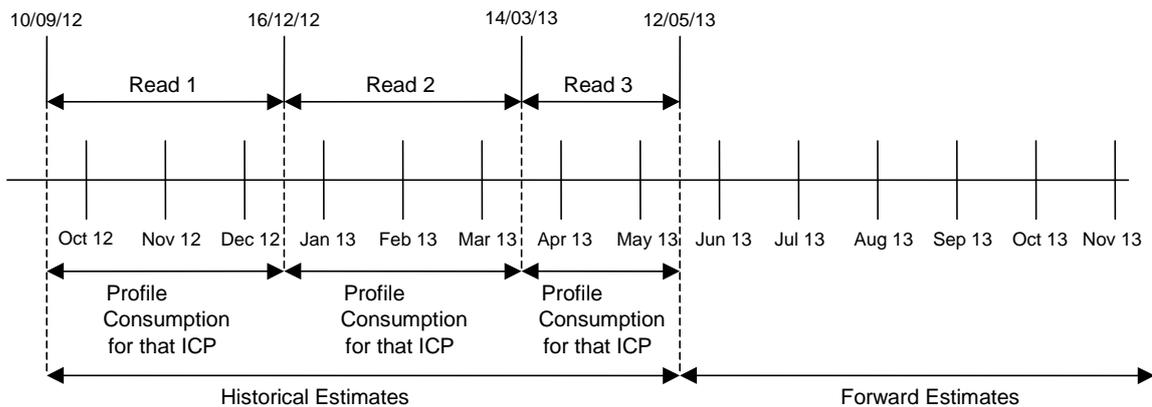
Historical Estimate (March 2013) =

Read *2* (17/12/12 to 14/03/13)　　　　x　　　　$\dfrac{\text{Profiled Consumption (Mar 01–14)}}{\text{Profile Consumption (17/12/12 to 14/03/13)}}$

Plus

Read *3* (15/03/13 to 12/05/13)　　　　x　　　　$\dfrac{\text{Profiled Consumption (Mar 15-31)}}{\text{Profile Consumption (15/03/13 to 12/05/13)}}$

4.5　*Rule 35.3 – unavailability of SADSVs*

(a)　As noted above, a retailer must generate a *historical estimate* for an initial allocation if that retailer has available to it a *validated register reading*.

(b)　However, when calculating *historical estimates* for inclusion in consumption information being submitted to the allocation agent for initial allocation, a retailer will not have available to it the *SADSVs* (as published by the allocation agent) for the *consumption period* being allocated. Therefore, the retailer must substitute these *SADSVs* with either:

- its own seasonal shape profile; or

- a flat straight-line profile.

(c)　To assist a retailer in meeting the accuracy requirement under rule 37:

(i)　if the start of the *meter read period* is prior to the start of the *consumption period* being allocated (in which case, *SADSVs* exist for the portion of the *meter read period* that is prior to the *consumption period* being allocated) then for the portion of the *meter read period* which is in the *consumption period* being allocated, the retailer should use either:

- a seasonal shape profile that is consistent with the *SADSVs* for the earlier portion of the *meter read period*, adjusted for seasonality; or

- a flat straight-line profile for which the daily average consumption quantity in the *consumption period* being allocated is the daily average consumption quantity of the *SADSVs* for the portion of the *meter read period* that is prior to the *consumption period*, adjusted for seasonality.

(ii)   if the start of the *meter read period* aligns with the start of the *consumption period* being allocated, then for that portion of the *meter read period* which is in the *consumption period* being allocated, the retailer should use either:

- its own seasonal shape profile; or

- a flat straight-line profile.

(d)   While it is important to note that a retailer must generate *historical estimates* when submitting consumption information for initial allocation, the methodology that the retailer uses is at the retailer's discretion. Hence, retailers may decide, for practical purposes, to use the same methodology as they use to calculate *forward estimates*.

5.   Application of rule 36

5.1   "*Forward estimate*" means an estimate of consumption information for ICPs in allocation groups 3 – 6, where it is not possible to calculate that consumption information using a *historical estimate*.

5.2   A retailer may, at its discretion, determine the method it wishes to use for calculating a *forward estimate*.

5.3   A *forward estimate* is to be used by retailers in the instance where it is not possible to calculate consumption information using a *historical estimate*. In other words, a retailer is to use a *forward estimate* for an ICP if a *validated register reading* has not occurred for that ICP during the *consumption period* being allocated and up until the date when consumption information must be provided to the allocation agent ie up until the 4th business day of the month following the consumption period[1].

5.4   By way of example **(Example D)**:

- If the retailer is submitting October 2012 consumption information to the allocation agent in November 2012 for initial allocation, and a *validated register reading* occurs on Sunday 2nd November, then that retailer is able to apply its validation processes and to calculate a

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[1] As noted earlier, in practice a *validated register reading* will need to have occurred sufficiently prior to the deadline for the submission of the initial consumption information to allow enough time to validate the *register reading* and to calculate a *historical estimate* for the ICP for the *consumption period* being allocated.

historical estimate for submission to the allocation agent by midday Thursday 6th November 2012 (as set out in Example A above).

- However, if the *validated register reading* occurred on Monday 3rd November (or later), then the retailer would need to calculate a *forward estimate*.

6. Application of rule 37

6.1 Rule 37 states that consumption information provided by a retailer for the initial allocation must be within a certain margin of error of the consumption information submitted by that retailer for final allocation. This margin of error applies to all allocation group 3 to 6 consumption information submitted for initial allocation, whether it includes *historical estimates, forward estimates* or both. The margin of error is to be determined annually by the industry body (Gas Industry Co) and published on its website.

6.2 For the margin of error for each gas year see *Notice of Determinations by the Industry Body (Gas Industry Co) under the Gas (Downstream Reconciliation) Rules 2008* dated 1 June 2013.

7. Worked Example for October 2008 consumption period

7.1 *Initial allocation*

- The current month is November 2008.

- A retailer reads its allocation group 4 and allocation group 6 meters once every three months. Therefore, the retailer will, in any one month, have *validated register readings* for approximately one third of its allocation group 4 and 6 ICPs, enabling it to calculate *historical estimates* for this subset of its ICPs.

- The retailer's internal business processes require any *validated register reading* that is to be used for calculating a *historical estimate* to occur no later than the last calendar day of the *consumption period* being allocated.

- By midday on 6th November 2008, the retailer provides the allocation agent with the aggregate estimated energy quantities (600 GJ), by allocated gas gate for all ICPs in allocation groups 4 and 6, for initial allocation of downstream gas in October 2008.

- Of the aggregate estimated energy quantities submitted, a material proportion will be calculated using *historical estimates*[2] (eg 100 GJ), with the remaining aggregate estimated quantities calculated using *forward estimates*.

- Since the retailer is submitting consumption information for initial allocation, the retailer will not be able to use *SADSVs* published by the allocation agent in the calculation of its

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[2] Perhaps in the region of one sixth, if all of the retailer's allocation group 4 and 6 customers consume approximately equal quantities of gas and their meters are read evenly across a month.

historical estimates. Instead the retailer will use either its own profiling methodology or use a flat straight line profile to generate *historical estimate* energy quantities for submission. In this example, the retailer elects to use the *SADSVs* published for the 24 months prior to 1st October 2008 to allocate consumption to October 2008 when calculating the *historical estimate*. To calculate a profile for October consumption, the retailer takes the average of the October 2006 and October 2007 *SADSVs* to derive estimated October 2008 *SADSVs* – thereby enabling the retailer to apportion consumption between the months of July, August, September and October 2008.

- Similarly, the retailer shall use its own estimation methodology for generating *forward estimate* energy quantities for submission.

For initial allocation, in the GAS040 file the retailer shall have 600 GJ in the "Consumption" field and 100 GJ in the "Quantity of Historical Estimate" field.

7.2 Interim allocation

- By 8am on 13th February 2009, the retailer provides the allocation agent with the aggregate estimated energy quantities by allocated gas gate for all ICPs in allocation groups 4 and 6, for interim allocation of downstream gas in October 2008.

- By now, the retailer has obtained (in this example) *validated register readings* for 95 percent of its allocation group 4 and 6 customers[3]. Consequently, the retailer is able to calculate *historical estimates* for approximately 90 per cent of the aggregate estimated energy quantities submitted for October 2008.

- Moreover, because the allocation agent published the *SADSVs* for October 2008 on 1st December 2008, the retailer is to use the most recently published *SADSVs* (as they relate to the month of October 2008) for all *historical estimates* calculated for October 2008 aggregated estimated energy quantities (ie the retailer replaces the estimated October 2008 *SADSVs* (or its estimated seasonal shape methodology/flat shape basis if applicable) used in its *historical estimates* for October 2008 with the actual October 2008 *SADSVs* published by the allocation agent; and the retailer replaces most of its *forward estimates* for October 2008 with *historical estimates* using the actual October 2008 *SADSVs*).

For interim allocation, in the GAS040 file the retailer shall have 600 GJ in the "Consumption" field and 540 GJ in the "Quantity of Historical Estimate" field.

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[3] Note that the Rules require that "every retailer must ensure that a validated register reading is obtained at least once every 4 months for 90% of the consumer installations with non-TOU meters to which the retailer has continuously supplied gas for the previous 4 months" (rule 29.5). In addition, all such consumer installations "must have register readings recorded at least once every 12-months unless exceptional circumstances prevent such an interrogation" (rule 29.4.3).

7.3   Final allocation

- By 8am on 18th December 2009 the retailer provides the allocation agent with the aggregate estimated energy quantities by allocated gas gate for all ICPs in allocation groups 4 and 6, for final allocation of downstream gas in October 2008.

- By now the retailer has *validated register readings* for 100 percent of its allocation group 4 and 6 customers. Consequently, the retailer is able to calculate *historical estimates* for all of the aggregate estimated energy quantities submitted for October 2008.

- Because the allocation agent published the *SADSVs* for October 2008 on 1st December 2008, the retailer is to use the most recently published *SADSVs* (as they relate to October 2008) for all *historical estimates* calculated for October 2008 aggregated estimated energy quantities (ie the retailer replaces the remaining estimated October 2008 *SADSVs* used in its *historical estimates* for October 2008 with the actual October 2008 *SADSVs* published by the allocation agent; and the retailer replaces its remaining *forward estimates* for October 2008 with *historical estimates* using the actual October 2008 *SADSVs*).

> *For final allocation, in the GAS040 file the retailer shall have 600 GJ in the "Consumption" field and 600 GJ in the "Quantity of Historical Estimate" field.*

- Since all allocation group 4 and 6 gas consumers do not consume the same quantity of gas and because retailers are not able to estimate perfectly their customers' consumption, in reality the quantity of gas in the "Consumption" field will vary between the initial, interim and final allocations.

- The proportions of historical and forward estimates for each respective allocation for the October 2008 consumption period are illustrated below.

■ Historical Estimates ▨ Forward Estimates