TECHNICAL DOCUMENT

Metering Requirements

For Receipt Points, Delivery Points and Bi-directional Points

First Gas Limited
September 2018

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History

Version	Date	Summary of changes
1.0	29/11/2007	Previous VTC Metering Requirements
2.0	03/09/2018	Draft circulated to industry for consultation
2.1	21/09/2018	Minor amendments subsequent to Block 5 GTAC workshop

Glossary

Accurate	means, in relation to Metering or any gas measurement device, a state wherein the Uncertainty of any such Metering or gas measurement device, determined prior to initial installation, by verification testing while in service or following an As-Found Test, falls within the respective limits required by these Metering Requirements.
Affected Party	means, in relation to Metering, the: (a) party to an interconnection agreement or transmission services agreement in respect of a Receipt Point or Delivery Point for which such Metering is used to derive the gas quantities either received into First Gas' pipeline for, or taken from First Gas' pipeline by, such party; and (b) Gas Transfer Agent or the Allocation Agent, as the case may be, where such Metering is used to derive the gas quantities either received into First Gas' pipeline for, or taken from First Gas' pipeline by, more than one party, and *Affected Parties* shall be construed accordingly.
Allocation Agent	means the person appointed to undertake that role under the DRR or an Allocation Agreement.
Allocation Agreement	is as defined in the GTAC
As-Found Test	means any test of a gas measurement device previously in service as part of Metering that is carried out using an approved Calibration Standard.
Bi-Directional Point	means a station or facility which, at different times (and at particular points in time), operates either as a Receipt Point or a Delivery Point
Calibration Standard	means: (a) any testing device or facility with traceability to a primary standard; or (b) a testing laboratory or facility having accreditation recognised by IANZ (International Accreditation New Zealand) or a comparable overseas accreditation authority recognised by the Affected Parties, provided that any Calibration Standard shall be at least as accurate and have equal or better resolution than any gas measurement device for which it is the Calibration Standard.
Corrector	means a gas volume conversion device type 1 (BS EN 12405-1)
Delivery Point	An *Interconnection* where gas is delivered from First Gas' transmission system

DRR	Downstream Reconciliation Rules or DRR means the Gas (Downstream Reconciliation) Rules 2008.
Existing Metering	is as defined in section 1.2 of the Metering Requirements
First Gas	First Gas Limited at Wellington, and includes its successors and permitted assigns.
Gas Transfer Agent	means a person named as a gas transfer agent in the relevant Gas Transfer Agreement.
GIC	Gas Industry Company
GTAC	Gas Transmission Access Code containing the standard terms of transportation and common and essential terms of interconnection, referenced by the relevant *TSA* or *ICA*
ICA	Interconnection Agreement – an agreement between First Gas and an *IP* that addresses the technical, operational and commercial aspects of the *Interconnection*
Inaccurate	means not Accurate.
IP	Interconnected Party - a party already connected to the transmission system (or if the context requires it, a party seeking to interconnect with the transmission system).
Interconnection	A generic term for the type of connection (i.e. *Receipt Point*, *Delivery Point* or *Bi-directional Point*) to First Gas' transmission system.
Metering	the equipment, instruments and associated components to measure quantities of gas injected into First Gas' pipeline at a Receipt Point, delivered from First Gas' pipeline at a Delivery Point, or injected into and delivered from First Gas' pipeline at a Bi-Directional Point.
Metering Owner	the party that owns Metering which, unless otherwise specified in the relevant interconnection agreement or transmission services agreement, shall be First Gas
Metering Requirements	means this document, "Metering Requirements for Receipt, Delivery Points and Bi-Directional Points", as it may be modified from time to time in accordance with the process set out in section 4.
OATIS	First Gas' internet-based open access transmission information system or any replacement system, whose homepage First Gas shall notify to Shippers and Interconnected Parties
Receipt Point	An *Interconnection* where gas is injected into First Gas' transmission system

SCADA	means First Gas' "System Control and Data Acquisition" system which allows First Gas to monitor Metering and other equipment, retrieve data, and control equipment such as compressors.
Shipper	A party who has signed a *TSA* with First Gas
Transmission System	the pipeline system for the transmission of Gas owned and operated by First Gas
TSA	Transmission Service Agreement - an agreement between a *Shipper* and First Gas for the transportation of gas
Uncertainty	means the difference between the output reading or signal of any gas measurement device and that of a verification device, or Calibration Standard as the case may be, expressed as a percentage

1. Purpose & Scope of the Metering Requirements

1.1. Purpose

First Gas Limited owns and operates the high-pressure gas transmission system in the North Island. We aim to facilitate the use of gas and maximise the use of the *Transmission System*. To ensure the efficient and effective operation of this system, all gas entering and leaving must be accurately accounted for through *Metering*.

This document outlines First Gas' Metering Requirements for *Receipt Points* and *Delivery Points* connected to the *Transmission System*. The *Metering Requirements* are designed to be a single set of metering technical specifications, testing requirements and correction methodologies that apply to the *Metering* found at *Receipt Points*, *Delivery Points and Bi-directional Points*. The *Metering Requirements* are referenced in both the Interconnection Agreements (ICAs) that First Gas holds with Interconnected Parties (IP's) and Transmission Services Agreements (TSAs) held with Shippers.

1.2. Scope

Except as expressly provided for in an ICA or a TSA:

- The *Metering Requirements* apply to all new Receipt Points, Delivery Points and Bi-directional Points.
- *Metering* in existence as at GTAC commencement (Existing Metering) will not need to immediately comply with the Metering Requirements;
- The Existing Metering owner will:
    - ensure that by 2-years from the commencement of GTAC (the Sunset Date) their *Metering* comply with the requirements set out in the *Metering Requirements*.
    - be relieved of the obligations set out in the *Metering Requirements* until the Sunset Date.
    - continue to maintain their compliance with the technical standards and testing requirements that applied immediately prior to *GTAC* commencement until the Sunset Date. This will be earlier versions of the "Metering Requirements" Document previously referred to in the Vector Transmission Code (VTC) or the technical requirements set out in Schedule One of the Maui Pipeline Operating Code (MPOC).
- The *Metering Owner* will record which document they comply with in the Metering Manual they are required to maintain and provide a copy of to First Gas.

While Existing Metering is excluded from immediately complying with the *Metering Requirements* Existing Metering Owners are able to "opt in" prior to the Sunset Date if they provide a written request to First Gas to do so. Once a *Metering Owner* has opted in to the *Metering Requirements* they will not be permitted to revert to their previous technical standards and testing arrangements.

To ensure a smooth transition, First Gas is willing to discuss with any Existing Metering Owner how they intend to comply with the revised *Metering Requirements* by the Sunset Date. This may include comment and feedback on a revised Metering Manual and associated documentation.

There are some areas that are outside the scope of the *Metering Requirements*, such as:

- Specific meter communication protocols and interfaces e.g. supervisory control and data acquisition (SCADA) requirements.
- Specific gas quality monitoring equipment and requirements.

These matters are dealt with in greater detail in ICA's and First Gas' New Interconnection Policy.

1.3. Related Documents

Terms in *Italics* in this document can be found in the Glossary. The definitions in the Glossary are intended to be consistent with contract definitions but, to assist those new to the industry, have been abbreviated compared with those in the contracts. In the case of any conflict, the contract definition will prevail.

This document should be read in conjunction with the following documents:

- Gas Transmission Access Code (GTAC);
- First Gas' New Interconnection Policy;
- Template or Existing Interconnection Agreement for a Delivery Point;
- Template or Existing Interconnection Agreement for a Receipt Point;
- Template or Existing Transmission Services Agreement.

These documents can be viewed and downloaded from the "Publications" section of First Gas' Open Access Transmission Information System (www.oatis.co.nz)

The interrelationship between the GTAC, this policy and ICAs is shown in Figure 1 below.

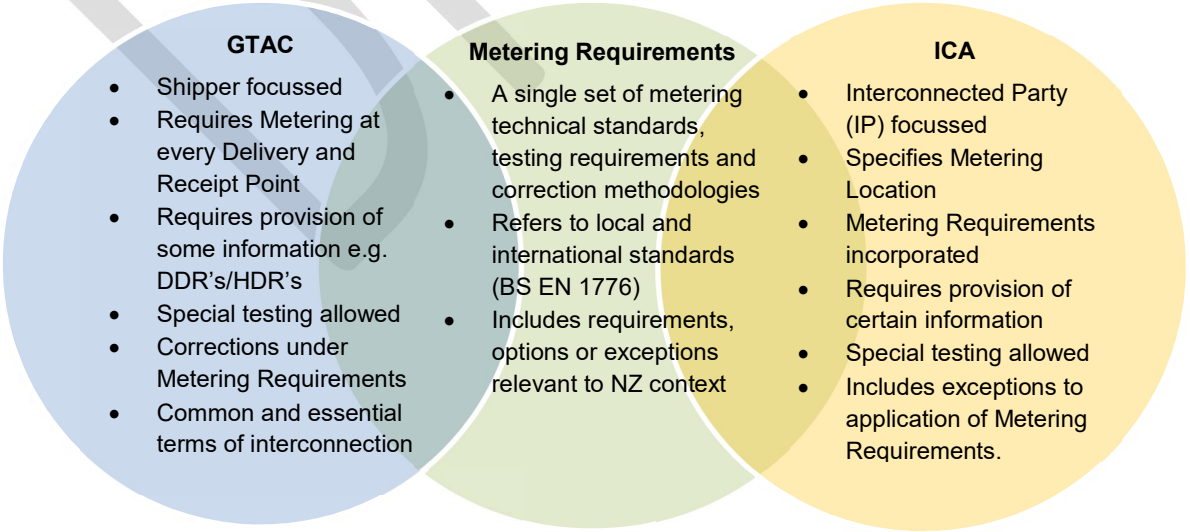

Figure 1: Interrelationship between the GTAC, the ICA Policy and an ICA

1.4. BS EN 1776: 2015 – Gas Measuring Systems – Functional Requirements

First Gas has adopted BS EN 1776:2015 as the standard applicable to gas measuring systems accounting for gas entering and leaving its gas transmission system to ensure the necessary accuracy. This British and European Standard underpins the First Gas Metering Requirements Document.

BS EN 1776: 2015 specifies the functional requirements for the design, construction, testing, commissioning/decommissioning, operation, maintenance and, where appropriate, calibration for all new gas metering systems and changes of existing systems. This standard also specifies accuracy classes of metering systems and thresholds applicable to these classes.

BS EN 1776:2015 is an outcomes-based standard which will give users flexibility in design and maintenance of their *Metering.*

Accordingly, this Metering Requirements Document must be read in conjunction with BS EN 1776 (2015) because it sets out specific First Gas requirements that expand on or qualify the general requirements of BS EN 1776 (2015). For example, the Metering Requirements include alternative methods for energy determination, by referring to NZS 5259:2015 which is a standard tailored to New Zealand circumstances.

2. Technical & Testing Requirements for Metering

2.1. General Requirements

The Metering Owner shall ensure that their Metering complies with the requirements of this Section 2.

Except as provided for in a *TSA, ICA* or the *Metering Requirements*, the design, installation, operation, commissioning/decommissioning, testing and maintenance of Metering shall comply with the requirements of BS EN 1776 (2015) (as amended from time to time).

2.2. New Zealand Supplementary Provisions to BS EN 1776

BS EN 1776:2015 is a generalized standard, so there are some clauses which allow options and there are some clauses which do not correspond with New Zealand practice.

The following table includes supplementary references that are intended to direct the user to the appropriate options, specific practices and qualifications to the application of BS EN 1776:2015 in the New Zealand context.

<table>
<tr><th>BSEN 1776 Reference</th><th>BSEN 1776 Section Title</th><th>Supplementary New Zealand Information & Requirements</th></tr>
<tr><td>2</td><td>Normative References</td><td>In addition to the Normative references referred to in BS EN 1776 (2015), First Gas recognise the following standards:
<table>
<tr><th>Application</th><th>Additional Normative Reference</th></tr>
<tr><td>Rotary meter (positive displacement)</td><td>ANSI B109.3</td></tr>
<tr><td>Turbine meter</td><td>AGA 7</td></tr>
<tr><td>Ultrasonic meter</td><td>AGA 9</td></tr>
<tr><td>Coriolis meter</td><td>AGA 11</td></tr>
<tr><td>Equations of state</td><td>AGA report No. 8 – Parts 1 & 2</td></tr>
<tr><td>Speed of Sound</td><td>AGA report No. 10</td></tr>
</table></td></tr>
<tr><td>3</td><td>Terms and Definitions</td><td>First Gas also recognise the following definitions:
Those contained in NZS5259:2015
Receipt Point: A point at which gas enters the First Gas transmission system.</td></tr>
</table>

BSEN 1776 Reference	BSEN 1776 Section Title	Supplementary New Zealand Information & Requirements
		• Delivery Point: A point at which gas leaves the First Gas transmission system.

4.1	General Requirements	The design, construction, commissioning, operation and maintenance of each *Receipt Point*, *Delivery Point and Bi-Directional Point* (including any *Connected Equipment*) shall:
		• conform with good gas industry engineering practice; and
		• comply with the requirements of:
		  ○ recognised and applicable standards;
		  ○ current and relevant legislation (including applicable regulations and rules under any enactment),
		  ○ any relevant *ICA* and Schedules to the *GTAC*.

4.3	Quality System	First Gas do not require the *Metering Owner* to have a formal quality system.
5.1	General	The output of the gas measuring system is energy (MJ). For accuracy requirements, refer to NZS 5259:2015
5.2 & 5.3	Classification	5.2 & 5.3 Classification of the measuring system: All measuring systems that: • measure gas at *Receipt Points; and* • have a maximum design flow rate equal to, or greater than, 5,000 standard cubic metres per hour shall be considered to be class A. Unless agreed otherwise with First Gas, all Receipt Points will be required to comply with the in-service uncertainty limits of a class A metering system.
6	Energy Determination	Base conditions (6.2.1): The base conditions applicable in New Zealand are • 101.325 kPa • 15°C Note that these are often referred to as standard conditions. First Gas recognise alternative methods for energy determination. See NZS 5259:2015.

BSEN 1776 Reference	BSEN 1776 Section Title	Supplementary New Zealand Information & Requirements
		First Gas recognise the method of determining gas density contained in NZS5259:2015 2.11.3.
6.2.3.1	General considerations	The gas composition shall be determined by a Gas Chromatograph.
6.2.3.2	Calorific value determination device (CVDD)	Unless otherwise agreed by First Gas, *Metering* shall calculate Calorific Value, Density, Relative Density and Wobbe Index in accordance with ISO 6976. For this purpose the Hexanes-plus fraction of the gas shall be treated in one of the following ways: 1. Where the analyser is a "C_6+" (Hexanes-plus) type: • as if it were a single component, namely Normal-Hexane; or • as a mixture of Normal-Hexane, Normal-Heptane and Normal-Octane; where: ○ Normal-Octane represents the Octanes-plus fraction; ○ The percentages of the 3 compounds are set prior to commissioning of the Metering based on an analysis of a representative sample of gas, and are reviewed not less than annually thereafter; or 2. where the analyser is a "C9+" (Nonanes-plus) type: • Hexanes, Heptanes and Octanes shall be determined individually and treated as Normal-Hexane, Normal-Heptane and Normal-Octane, respectively; and • the Nonanes-plus fraction shall be treated as if it were a single component, namely Normal-Nonane. The CVDD shall determine both spot values (i.e. values for the last gas sample analysed) and daily average values of the following parameters: (a) the concentrations of gas constituents (expressed in mole %), including: (i) Carbon Dioxide; (ii) Nitrogen; (iii) Methane;

BSEN 1776 Reference	BSEN 1776 Section Title	Supplementary New Zealand Information & Requirements
		(iv) Ethane; (v) Propane; (vi) Iso-Butane; (vii) Normal Butane; (viii) Iso-Pentane, including Neo-Pentane if detectable and < 10% of total Pentanes; (ix) Neo-Pentane, if detectable and ≥ 10% of total Pentanes; (x) Normal-Pentane; and (xi) Hexanes-plus fraction, (see above information relating to the treatment of the C6+ fraction) (b) Calorific Value (expressed in MJ/scm on a dry gas basis); (c) Nett Calorific Value (expressed in MJ/scm on a dry gas basis); (d) density at Standard Conditions (expressed in kg/m^3); (e) Relative Density; and (f) Wobbe Index (expressed in MJ/scm), and all values determined must be both stored by the analyser and transmitted to the flow computer.
	Data acceptance criteria	The following data acceptance criteria are recognised by First Gas: 1. Un-normalised molar concentrations: • The un-normalised total of all components is within the range 98% to 102% for sample gas and • 99% to 101% for calibration gas. 2. Comparing characteristics of certified Calibration gas: • Density +/- 0.1% • Calorific Value (Superior) +/- 0.1% The CVDD shall be programmed to send an error message to the conversion device and the First Gas SCADA RTU if: • The data acceptance criteria is not met

BSEN 1776 Reference	BSEN 1776 Section Title	Supplementary New Zealand Information & Requirements
		• The CVDD self-diagnoses a malfunction. Since CVDD's are constantly evolving, the self-diagnostic functions shall be subject to discussion and agreement with First Gas during the design phase. When this error situation occurs, the conversion device shall utilise a "fall-back" gas composition, and the gas quantities calculated shall be flagged accordingly. The "fall-back" gas composition shall be agreed by First Gas.
6.9	Gas pressure conversion	First Gas has traditionally recorded gauge pressure and utilises gauge pressure in its SCADA system. For metering purposes, gauge pressure shall be converted to absolute pressure by employing an agreed altitude factor. See NZS 5259:2015.
7.8.2	Gas pressure measurement Class A:	
6.10	Compressibility conversion	First gas recognises all methods documented in NZS5259:2015 3.8.2.4.
7.6.1	Gas measuring installation – general	All measuring systems that measure gas at Class A *Receipt Points* shall allow for in-service verification of meters. This shall be achieved by installing two meters (a primary meter and a verification meter) which can be run in series when required. The measuring values shall be safeguarded for a minimum of 30 days. Where the gas measurement system incorporates a meter which can be damaged by operating above Q (max) (e.g. turbine and rotary meters), it shall incorporate a flow restricting device that limits the gas flow rate to 120% of Q (max). All measuring systems that measure gas at *Receipt Points* shall incorporate an uninterruptible power supply system capable of operating the measuring system for a minimum of 4 hours in the event of a power failure.
7.6.3	Gas Meters	All gas meters shall record the uncorrected reading and make this available for reading. Rotary and Turbine meters shall incorporate a mechanical totaliser. Other meter technologies shall

BSEN 1776 Reference	BSEN 1776 Section Title	Supplementary New Zealand Information & Requirements
		electronically store the uncorrected reading in a way that can be transferred to the conversion device or downloaded. All turbine meters shall incorporate an external oiler. Accuracy testing of gas meters shall comply with NZS5259:2015.
7.17	Filter	Unless agreed otherwise with First Gas that alternate arrangements are in place to comply with BS EN 1776, all gas entering the First Gas Transmission system shall pass through a filter / separator immediately upstream of the meter. This filter / separator shall incorporate filter elements which will remove 99.9% of contaminants larger than 3 microns.
7.23	Documented provisions	The owner of the measuring system shall comply with clause 7.23 and maintain the archive described in annex F. This shall be available for First Gas inspection at any time. This documentation can be referred to as "The Metering Manual". The owner of the measuring system shall retain records of all testing for not less than 7-years and provide the other *Affected Parties* with copies on request. Where the measuring system is not owned by First Gas, the measuring system owner shall obtain First Gas approval of the following items prior to commissioning: • The measuring system design; • The calibration certificates for all major measuring system components; • The maintenance plan for all major measuring system components; • The plan for measurement system fault detection and rectification. Where the measuring system is not owned by First Gas, the measuring system owner shall: • Provide First Gas with calibration/verification and maintenance records. The methodology and frequency of provision shall be mutually agreed and documented.
11.7	Calibration / verification and maintenance records	
Annex F	Documentation & Records	

BSEN 1776 Reference	BSEN 1776 Section Title	Supplementary New Zealand Information & Requirements
		• Permit a First Gas representative to witness any maintenance activity on the measuring system where requested by First Gas. • Allow the calibration/verification and maintenance records to be viewed by *Affected Parties*
11.3	Gas Meters (Operations & Maintenance)	Coriolis meters shall be specified to include self-diagnostic capability. This shall be checked at intervals of no more than 1 year compared with the results obtained during commissioning. All gas measuring systems shall be designed to cause an alarm signal to be generated when a malfunction occurs. This alarm signal shall be automatically transmitted to the gas measurement system owner and First Gas. The details of what issues represent a malfunction shall be discussed and agreed between the gas measuring system owner and First Gas.
11.5	Calorific value determination device (CVDD)	Verification of the performance of the CVDD by comparing the process gas composition determined by the CVDD with the gas composition determined by a calibration laboratory shall be carried out at intervals of no more than 6 months. The acceptance criteria for this check shall be Calorific Value (Superior) +/- 0.5% MJ/m3. The CVDD shall be programmed to auto-calibrate at least weekly.

3. Metering Corrections

The *Metering Owner* shall correct any gas quantities calculated by *Metering* that is found to be Inaccurate in accordance with this Section 3.

3.1. Gas Measurement Devices

If a gas measurement device used in *Metering* is found by testing (or other valid means) to be Inaccurate, the *Metering Owner* shall immediately notify the other *Affected Parties*. The *Metering Owner* shall then calculate revised gas quantities (hourly and daily where practicable) to correct for the effect of the Inaccurate gas measurement device according to the process set out in this section.

The *Metering Owner* shall calculate revised gas quantities for the following time periods:

(a) the time period within which the gas measurement device was determined to have been *Inaccurate*; or

(b) if this time period cannot be determined, the lesser of 60 days and half the period since the previous test that showed the gas measurement device to be *Accurate.*

Any revised gas quantities calculated to correct for an *Inaccurate* gas measurement device shall be based on the difference between the as-found measurement, reading or output of such device and the value of the measurement, reading or output had the device been operating with zero *Uncertainty*.

The *Metering Owner* shall use the best information available to it when calculating the revised gas quantities. They will advise all *Affected Parties* of the revised gas quantities and details of the methodology used to calculate them no later than the end of the month following the month in which the gas measurement device was found to be *Inaccurate*.

A meter shall be considered capable of measuring accurately down to the Qmin specified by the manufacturer. Revised gas quantities for any meter found to be *Inaccurate* shall only be calculated for periods when a meter was operating below its Qmin if all *Affected Parties* agree and there is reliable data from a source other than the meter in question. However, if the *Metering Owner* can show that the volumes of gas passing through the meter when it operates below Qmin are negligible compared its normal flow regime then revised gas quantities will not need to be calculated.

Revised metered volumes shall be based on the *Uncertainty* found by re-calibration testing to apply to the normal operating flow range (determined by reference to recorded flow data) of the meter. The *Metering Owner* shall calculate the revised metered volumes using the most practical of the following methods:

(a) the arithmetic average *Uncertainty* of the meter for its normal operating flow range; or

(b) the volume-weighted *Uncertainty* of the meter for its normal operating flow range; or

(c) the Uncertainty-versus-flow relationship established for the normal operating flow rate range of the meter.

If the normal operating flow range of a meter is not known, the revised metered volumes shall be based on the arithmetic average *Uncertainty* found from re-calibration testing at the following flow rates: Qmin, 20% of Qmax, 40% of Qmax, 50% of Qmax, 70% of Qmax and Qmax.

Where a meter has failed completely, the *Metering Owner* shall calculate the revised gas quantities:

(a) using data from a meter operating in series with the failed meter that is capable of achieving accuracy at least equal to the failed meter; or

(b) where the failed meter was operating in parallel with another meter, using the relationship between flow data measured by the two meters from a corresponding period when both meters were operating normally; or

(c) using historical data for corresponding periods of time.

3.2. Flow Computer or Corrector

If a flow computer, a transducer used by a flow computer or a *Corrector* fails completely, the *Metering Owner* shall calculate revised gas quantities for the affected meter from uncorrected volumes measured by that meter, by applying:

(a) appropriate correction factors from periods when the flow computer or transducer was functioning properly; or

(b) independent corrections for pressure, temperature, compressibility and any other applicable factors

and multiplying the Hourly corrected volumes resulting from (a) or (b) by the *Hourly* average *Gross Calorific Value* from the analyser used by the *Metering.* If this data is not available, data from the most appropriate alternative analyser will be used.

If the electronic data storage device associated with a meter normally used to store gas quantities (e.g. the electronic data storage facility of a flow computer or Corrector) fails, the Metering Owner shall determine revised gas quantities for the affected meter using the following methods:

(a) using data from the electronic data storage device associated with a meter operating in series with the affected meter, as long as the series meter is capable of achieving accuracy at least equal to the affected meter;

(b) using readings from a non-resetting totaliser unaffected by the failed electronic data storage device during the same period of time that the electronic data storage device was out of service. The M*etering Owner* shall calculate the total energy quantity for the period between each reading (ie initial and final readings). The method of calculation will depend on the type of readings available, for example uncorrected volume, corrected volume or energy. The *Metering Owner* shall then break down the total energy quantity into both hourly and daily quantities, including for the period of time in which the electronic data storage device was out of service, using a flow profile corresponding to that from a period of time in which the *Metering* was functioning normally; or

(c) using historical data for corresponding periods of time.

3.3. Gas Analyser

Where a gas analyser fails or becomes *Inaccurate*, any flow computer using the output of such analyser will use fall-back gas composition values to calculate gas quantities. The *Metering Owner* shall determine whether it is necessary to calculate revised gas quantities for the period that the analyser was out of service, having regard to:

(a) the materiality of any differences between the properties of the gas which actually passed through the *Metering* during the period the analyser was out of service (as indicated by an analyser elsewhere or other means) and the fall-back values in the flow computer; and

(b) the availability and applicability of alternative gas composition information; and

(c) any other relevant factors,

Where a gas analyser fails, the *Metering Owner* will only be required to correct for differences in the *Gross Calorific Value*, unless it is practical to correct for other factors affected by gas composition, including gas compressibility. The *Metering Owner* will correct for *Gross Calorific Value* by applying correct Hourly average Gross Calorific Values.

4. Change Process

First Gas may amend the *Metering Requirements* at any time in accordance with the following process set out below.

First Gas will publish the following information on OATIS:

(a) a description of the proposed change to the *Metering Requirements*;

(b) the reasons for the proposed change;

(c) a marked-up version of the *Metering Requirements* showing any proposed amendments; and

(d) the provisional date on which the amended *Metering Requirements* would take effect.

First Gas will consult with industry on all potential changes to the *Metering Requirements*. Subsequent to such consultation, First Gas:

- will consider stakeholder feedback including any potential impacts on businesses or operations;
- may make amendments to the information originally published; and
- will make that revised information available on OATIS.

At the conclusion of any industry consultation, First Gas will publish on OATIS:

- a final marked-up version of the *Metering Requirements*; and
- the final date on which the amended *Metering Requirements* would take effect.

The *Metering Requirements* will apply as amended from that date.

First Gas is willing to receive suggestions for changes to the *Metering Requirements*, which include the information listed above, from *Affected Parties*. However, the decision whether to progress such changes will be at the sole discretion of First Gas. If First Gas elects to not proceed with the suggested amendment(s) proposed by the *Affected Parties*, it will publish its reasoning on OATIS.

5. First Gas Contact

Enquires in relation to the Metering Requirements should be directed as follows:

Transmission Commercial Advisor

First Gas Limited
Level 6, Resimac House
45 Johnston Street
Wellington Central 6011
PO Box 865, Wellington 6140

email: commercial.analyst@firstgas.co.nz