Consultation Paper for Gas Industry Co

Options for Switching Arrangements for the New Zealand Gas Industry

October 2005

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Part A: Overview

1 Introduction

Purpose

1.1 The purpose of this consultation paper is to seek input from stakeholders on the Gas Industry Co's analysis of the issues facing switching arrangements in the New Zealand gas industry, the options considered to be available to address these issues and the Gas Industry Co's preferred option.

Background

1.2 In the Government Policy Statement on Gas Governance, dated October 2004, the Minister of Energy invites the Gas Industry Co to recommend arrangements, including rules and regulations where appropriate, in relation the standardisation and upgrading of protocols relating to customer switching, so that barriers to customer switching are minimised.

1.3 In response to the Government's invitation, the Gas Industry Co formed the Switching & Registry Working Group. The task of the Working Group is to consider mechanisms to facilitate effective and accurate switching and other relevant processes. The Working Group includes industry and consumer representatives and has an independent Chair. The Switching & Registry Working Group has reviewed previous work undertaken on switching arrangements, has provided recommendations to the Gas Industry Co on the options to address switching issues and has recommended a preferred switching solution.

1.4 The Gas Industry Co has prepared this consultation paper with input from the Switching & Registry Working Group and the Company's technical adviser on switching and registry arrangements.

Report Structure

1.5 This report is structured into three main parts. Part A provides an introduction to the consultation paper and includes the Executive Summary.

1.6 Part B sets out the Gas Industry Co's legislative objectives in relation to switching arrangements and identifies the issues with the current switching arrangements. Part B also identifies and analyses the reasonably practicable options for addressing these objectives and issues.

1.7 Part C describes the Gas Industry Co's preferred switching option, which is the development of a Central Registry, along with detailing the proposed functionality requirements of the preferred option.

Submission Requirements

1.8 The Gas Industry Co invites submissions on the proposal and in answer to the specific questions by **5 pm** on **28 October 2005**. Please note that submissions received after this date may not be able to be considered.

1.9 The Gas Industry Co's preference is to receive submissions in electronic form (Microsoft Word format and pdf) and to receive one hard copy of the electronic version. The electronic version should be emailed with the phrase "Submission on Proposed Switching Arrangements" in the subject header to info@gasindustry.co.nz, and one hard copy of the submission should be posted to the address below:

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1.10 The Gas Industry Co will acknowledge receipt of all submissions electronically. Please contact Simon Bratt if you do not receive electronic acknowledgement of your submission within two business days.

1.11 Submissions should be provided in the format shown in Appendix B. The Gas Industry Co values openness and transparency and therefore submissions will generally be made available to the public on the Gas Industry Co's website. Submitters should discuss any intended provision of confidential information with the Gas Industry Co prior to submitting the information.

Glossary of Terms

1.12 A comprehensive Glossary of Terms is attached as Appendix A to this paper.

2 Executive Summary

Background

2.1 The key role of a switching arrangement is to enable customers to switch retailers.

2.2 The development of switching arrangements has, until recently, been largely undertaken by the Reconciliation Code Working Group and workstreams established by that Working Group. The Reconciliation Code Working Group was disestablished in 2003 in anticipation of the Gas Industry Co reviewing and recommending switching and reconciliation arrangements.

2.3 The Gas Industry Co formed the Switching & Registry Working Group to identify the issues and industry concerns arising from the current switching arrangements and the various options to address these issues and concerns.

Objective

2.4 In accordance with section 43ZO of the Gas Act 1992, the Minister of Energy issued a Government Policy Statement on Gas Governance ("GPS") in October 2004, which set out objectives and outcomes that the Government wants the Gas Industry Co to pursue in relation to the governance of the gas industry.

2.5 The GPS included an invitation to the Gas Industry Co to recommend arrangements, including regulations and rules where appropriate, for the standardisation and upgrading protocols relating to customer switching, so that barriers to customer switching are minimised.

2.6 Having regard to the above invitation and following the assessment of issues with current switching processes, the Gas Industry Co has determined that its objective for the proposed switching and registry arrangement is:

> To improve consumer service levels, remove barriers to retail competition and minimise the risks and costs associated with switching processes.

Issues with Current Switching Arrangements

2.7 The Gas Industry Co has identified a number of process issues in the current switching arrangements. These are:

- Inefficient information exchange processes;
- Incomplete access by retailers to key Installation Control Point ("ICP") data;
- Lack of rules for updating ICP data;
- Discrepancies in information;
- Lack of compatibility between systems;
- Lack of a governance structure to support and enforce compliance and resolve complaints; and
- No linkage with allocation and reconciliation processes.

2.8 These process issues have resulted in outcomes which can be summarised as follows:

- Customer dissatisfaction with switching service performance;
- High participant transaction costs; and
- Barriers to competition due to inefficient and incomplete processes.

2.9 The above issues and outcomes are explained further in section 5 of this paper.

Options Identification and Analysis

2.10 The Gas Industry Co has identified four potential switching options that it considers are reasonably practicable to meet its switching objective. These are:

- Option 1. Status Quo
- Option 2. Reconciliation Code Enhancements
- Option 3. Central Registry
- Option 4. Central Registry with Allocation Mechanism

2.11 The above options have been analysed against the Gas Industry's Co's switching objective in addition to considering the strengths, weaknesses, benefits and potential costs of each option. The following table summarises this analysis:

Table 1: Summary of Options Analysis

Option	Analysis
1. Status Quo	• Does not achieve switching objective.
2. Reconciliation Code Enhancements	• Partially meets the switching objective: – Does not address customer dissatisfaction. – Some improvements in retail competition. – High transaction costs for participants.
3. Central Registry	• Achieves switching objective: – Improves service to customers. – Removes barriers to competition. – Reduces inefficiency of processes. • Investment from industry required.
4. Central Registry integrated with Allocation Mechanism	• Exceeds switching objective: – Improves service to customers. – Removes barriers to competition. – Reduces inefficiency of processes. • Significant investment from industry required.

2.12 The Gas Industry Co has concluded that the preferred switching arrangement for the gas industry is the Central Registry option.

Preferred Option: Central Registry

2.13 The preferred Central Registry option refers to a database of record for data necessary to initiate a switch, which also has the ability to co-ordinate all switch processes.

2.14 The Central Registry would consist of:

- The registry, being a single central database or an integrated set of participant databases, in which certain data are held and maintained by participants (according to specific business and system rules); and
- The processes by which certain data are transferred between participants and by which the events represented by those data transfers are recorded in the registry.

2.15 The registry would provide the database of record of the events in the lifecycle of an ICP to facilitate:

- Timely and accurate customer switching;
- Accurate energy allocation and reconciliation;
- Accurate network and GMS charge allocations; and
- Monitoring of participant compliance.

2.16 The registry would be at the centre of the switch process to ensure that:

- A valid switch cannot occur without being passed through the registry;
- Switches passing through the registry are valid and complete in terms of compliance with data transfer protocols; and
- Progress of the switch is tracked by monitoring and recording the files transferred between the parties.

Purpose of the Report

2.17 As outlined in section 1, the purpose of this consultation paper is to seek input from stakeholders on the Gas Industry Co's analysis of the issues facing switching arrangements in the New Zealand gas industry, the options considered to be available to address these issues and the Gas Industry Co's preferred option. For the purpose of providing feedback, submitters should assume that the preferred option will be mandatory for industry participants. Subject to the form of the Gas Industry Co's recommended switching option, the arrangements to achieve mandatory participation of the recommended option will be the subject of a separate consultation process.

Part B: Background, Option Identification & Analysis

3 Background

3.1 Customer switching in the gas retail market is currently governed by a voluntary industry code, the Reconciliation Code, which came into effect in July 2000. The Reconciliation Code provides a framework for multiple retailers to trade natural gas on the same distribution network.

3.2 The Reconciliation Code applies all to information exchanges required between parties when a customer switches retailers.

Development of Switching Arrangements

3.3 During the development of the Reconciliation Code it was decided to adopt a different approach from the electricity industry on the basis of the relative size of the industry and a desire for a less complex and lower cost solution. The risks with adopting the current approach were recognised and it was intended that the arrangements would be reviewed after a few years of experience to see if the required outcomes were being delivered.

3.4 The Reconciliation Code Working Group, an industry working group, was formed to consider switching and reconciliation arrangement issues. Until recently, the development of switching arrangements has been largely undertaken by the Reconciliation Code Working Group and workstreams established by that Working Group.

3.5 The implementation of recommendations of the Reconciliation Code Working Group was dependent on obtaining total industry support. A number of recommendations developed by the Working Group have not been fully implemented because total industry support and industry compliance could not be achieved.

3.6 In April 2002, an industry workshop was held to discuss switching and reconciliation issues, with a view to progressing improvements where appropriate. General agreement was reached by industry participants on a number of improvements to the existing switching and reconciliation arrangements, but implementation stalled due to the lack of effective industry governance arrangements.

Co-regulatory Authority

3.7 The Government undertook a comprehensive review of the gas sector during 2001 and 2002. This review resulted in a number of changes to the Gas Act 1992 in late 2004, including providing for the establishment of a co-regulatory governance structure for the industry.

3.8 The Gas Industry Co was established to fulfil this role and was approved as the co-regulator by Order in Council on 22 December 2004.

3.9 The Reconciliation Code Working Group was disestablished in anticipation of the Gas Industry Co reviewing and recommending switching and reconciliation arrangements, and improvements to the current arrangements.

Switching & Registry Working Group

3.10 In response to the Government's invitation in the GPS to recommend arrangements in relation to customer switching and concerns raised by some industry participants with the current switching arrangements, the Gas Industry Co formed the

Switching & Registry Working Group. The Working Group was formed to consider mechanisms to facilitate effective and accurate switching and other relevant processes.

3.11 The Switching & Registry Working Group has a broad representation of industry and consumer stakeholders and has an independent chair.

3.12 The Switching & Registry Working Group has built on the work of the Reconciliation Code Working Group and has identified industry and consumer concerns with the current system. Based on the Government's objectives for the gas industry and industry concerns with the current arrangements, the Working Group has identified four potential options for customer switching. The Working Group has recommended these options to the Gas Industry Co along with a preferred arrangement.

3.13 The findings of the Switching & Registry Working Group are incorporated into this paper.

4 Regulatory Context

Gas Act

4.1 The Gas Act allows the Government to directly regulate for retail and consumer issues to ensure effective outcomes for consumers. Section 43G of the Gas Act 1992 provides that the Minister of Energy can recommend the making of regulations for the purpose of:

> *Requiring all gas retailers to comply with, and give effect to, a system or set of rules that will enable any consumer or class of consumer to choose, and alternate, between competing gas retailers, with the objective of promoting competition in gas retail markets.*

4.2 In exercising this power, the Minister must provide the Gas Industry Co (as industry body) with a reasonable opportunity to make recommendations on gas governance regulations.

GPS Objectives

4.3 In accordance with the above, the Minister of Energy has invited the Gas Industry Co to recommend arrangements, including rules and regulations where appropriate, in relation the standardisation and upgrading of protocols relating to customer switching, so that barriers to customer switching are minimised. This invitation is contained in the GPS.

4.4 In developing its recommendations on customer switching, the Gas Industry Co needs to have regard to the Government's overall policy objective for the gas industry which is:

> *To ensure that gas is delivered to existing and new customer in a safe, efficient, fair, reliable, and environmentally sustainable manner.*[1]

4.5 Consistent with this overall objective, the Government is also seeking the following specific outcomes:[2]

- *The facilitation and promotion of the ongoing supply of gas to meet New Zealand's energy needs, by providing access to essential infrastructure and competitive market arrangements.*
- *Energy and other resources are used efficiently.*
- *Barriers to competition in the gas industry are minimised to the long-term benefit of end-users.*
- *Incentives for investment in gas processing facilities, transmission and distribution, energy efficiency and demand-side management are maintained or enhanced.*
- *Delivered gas costs and prices are subject to sustained downward pressure.*

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1 Government Policy Statement on Gas Governance, dated October 2004.

2 As above, n 1.

- *The quality of gas services and in particular trade-offs between quality and prices, as far as possible, reflect customers' preferences.*

- *The gas sector contributes to achieving the Government's climate change objectives by minimising gas losses and promoting demand-side management and energy efficiency.*

Consultation Requirements

4.6 The Gas Act requires that before a recommendation for gas governance regulations is made to the Minister, the Gas Industry Co must:

- Consult with persons that the recommending body thinks are representative of the interests of persons likely to be substantially affected by the proposed regulation;[3]

- Seek to identify all reasonably practicable options for achieving the objective of the regulation;[4] and

- Assess those options by considering benefits and costs, and the extent to which the objective would be promoted or achieved by each option.[5]

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3 Gas Act 1992, Section 43L(1)(b).

4 Gas Act 1992, Section 43N(1)(a).

5 Gas Act 1992, s 43N(1)(b).

5 Issues Arising from Existing Arrangements

5.1 This section provides an overview of the current switching arrangements and the key issues identified with these arrangements.

Current Arrangements

Industry Participants

5.2 The key participants involved in switching a reticulated natural gas retail customer are:

- **Customers**
- **Retailers:** Auckland Gas Company, Bay of Plenty Electricity, Contact, E-Gas, Genesis, Mercury[6], NGC, Nova Gas, Wanganui Gas.
- **Distributors:** GasNet, NGC, Nova Gas, Powerco, Vector.
- **Metering Equipment Owners (GMS Owners):** Contact, NGC, Nova Gas, Powerco, Wanganui Gas.

Current Switching Arrangements

5.3 The primary reasons for retail gas customer switches are that a customer:

- Decides to switch to an alternative retailer to gain better price or service; or
- Moves house and chooses a retailer different from the retailer that previously supplied the customer.

5.4 As noted in section 3, customer switching in the gas retail market is currently governed by the Reconciliation Code. The focus of the Reconciliation Code is on what information must be exchanged between all affected parties (e.g. existing retailer, new retailer, network operator, meter owners and the allocation agent) when a customer switches retailers.

5.5 The gas retail market requires a record to be kept that identifies the retailer responsible for each Installation Control Point ("ICP"). An ICP is the point at which a premises is deemed to have gas supplied from a gas network. Each ICP has a unique identifier.

5.6 A record of ICP data is necessary so that a retailer can identify the data for the premises it is responsible for providing gas to, and so that it can set up billing arrangements for its customers. This record can also be used as part of the reconciliation process.

5.7 A record of ICP data is also important because customers are able to take gas without a contract with a particular retailer (for example, where a person moves into a new house with an active gas service) and because multiple retailers may try to bill the same

[6] Retail operating division of Mighty River Power.

customer (for example, where a switch has not been recorded correctly and both retailers have the customer on their databases). In both cases a record is required to identify the retailer with responsibility for the gas supply at the ICP.

5.8 The current system requires a number of parties, including retailers, distributors and GMS operators, to voluntarily provide data from their individual databases to complete a switch.

5.9 To assist current switching arrangements, several distributors have developed websites which assist with some aspects of switching. One distributor provides the facility for the new retailer to record a completed switch on the distributor's network, via their website. These distributor websites are limited in the level of information they provide and are not recognised as a database of record.

Switching Statistics

5.10 There are currently approximately 230,000 gas ICPs and the number is growing at a rate of approximately 2% per annum.

5.11 The following table sets out the number of monthly switches for gas against electricity.

Table 2 Gas & Electricity Switching Stats

Utility	Monthly Switches	Total Customer	Churn (%)
Gas	1,000	230,000	0.43%
Electricity	13,000	1,700,000	0.78%

Source: Gas data monthly switches based on industry estimates, electricity data provided by the Electricity Commission

5.12 The table shows that switching levels for gas are about half the level they are for electricity.

5.13 Based on information provided by industry participants, total switching costs for all retailers is approximately $40,000 per month, a large proportion of which is associated with the time it takes to collect information from relevant parties and process the switch.

5.14 Industry participants have estimated that it takes approximately 25 minutes to process a switch. It was noted by an industry participant that gas switches take around three times longer to process than electricity switches, which are largely automated, have standard information exchange formats and a central database of record.

5.15 The cost of switching to distribution companies and GMS owners is difficult to estimate.

Issues

5.16 A number of issues have been identified with the current switching arrangements. These have been identified from discussions with retailers, distributors and consumer representatives and from the Electricity and Gas Complaints Commission about the workings and performance of the current arrangement. The issues include:

- **Information exchange processes are inefficient:** File formats are not standard, processes cannot be automated, all affected parties are involved in exchanging information via email and spreadsheets as part of the switch process, time

standards are often not met by switch participants and there is no secure data transportation mechanism. This means that the switch process is labour intensive to complete.

- **Retailers have incomplete access to key ICP data:** There are no rules requiring parties to provide access to key information needed for accurate switching. This means that it is often not be clear which retailer is supplying an ICP or who the meter owner is, which is essential information for initiating a switch with the correct parties.

- **No rules for updating ICP data:** There are no mandatory rules for updating ICP data in distributor databases and, as a consequence, distributor records do not always reflect the correct retailer, correct meter owner or the correct status of an ICP. A reliable single source of ICP data is necessary for switching as customers are able to take gas without a retail contract (for example, where a person moves into a vacant house with gas connected) and more than one retailer can bill the same customer (for example, where only the new retailer has a record of the customer switch).

- **Information discrepancies:** There are often information discrepancies between individual distributor databases and between distributor and retailer databases. This creates problems and delays in the switching process, and issues for billing and reconciliation. Without mandatory protocols for reporting or resolving distributor-retailer database discrepancies it can be difficult to resolve billing and reconciliation issues.

- **Lack of compatibility between systems:** There is currently no protocol or standard mechanism for existing retailer and distributor databases to interface with each other to reduce and resolve discrepancies.

- **No governance structure to support and enforce compliance:** There is no compliance mechanism or reporting / audit framework for the current system.

- **Does not support effective complaints resolution:** The current switching arrangements do not enable agencies working on behalf of consumers to directly source key switching information that would enable speedy resolution of complaints. This is likely to discourage some customers from switching retailers.

- **No linkage with the allocation and reconciliation processes.** Under the existing processes the Allocation Agent has no single reference point for validating the monthly allocations of energy purchases by retailers. The result is that allocations and annual reconciliations are often contentious.

5.17 These issues lead to inaccurate and incomplete exchanges of data, delays and inaccurate billing. The implications of these issues for the gas industry are:

- **Customer dissatisfaction:** Delays, inaccurate billing and customers being incorrectly disconnected caused by errors in the switching process are a fundamental breach of the service that gas consumers should be entitled to receive from their gas suppliers.

- **High administration costs:** Administration costs are high for the current switching arrangement because the process is not able to be automated, file

formats are not standardised and there are a number of discrepancies between various datasets.

- **Impedes competition:** If switching processes are difficult and unreliable, retailers will be discouraged from actively recruiting new customers because of the potential cost involved with switching customers. It will also discourage customers from switching retailers.

Q1:	Do you agree that the Gas Industry Co has identified the key issues in relation to current customer switching?

6 Gas Industry Co's Objective

6.1 In consideration of the issues and outcomes identified by the Gas Industry Co with the current arrangements and in light of the Government's objectives for the gas industry set out in the GPS, the Gas Industry Co has concluded that its objective in relation to recommending customer switching arrangements is:

> To improve consumer service levels, remove barriers to retail competition and minimise the risks and costs associated with switching processes.

6.2 This objective is referred to throughout this consultation document as "the switching objective".

6.3 The Gas Industry Co will examine a number of factors in its consideration of the extent to which the switching objective is achieved or promoted, including whether a switching option:

Improves consumer service levels

- Supports consumer choice of retailer.
- Allows timely and accurate switching.
- Enables correct billing setup for production of accurate invoices to consumers.
- Enables transparent switching processes.

Removes barriers to retail competition

- Supports consumer choice of retailer.
- Provide a process which does not create barriers to new entrant retailers.
- Allows timely and accurate switching.

Minimises the risks and costs associated with switching processes

- Allows timely and accurate switching.
- Enables correct billing setup for production of accurate invoices to consumers.
- Reflects the size of the industry and the expected number of required customer switches and is cost effective and fit for purpose.
- Enables reliable, secure, performance managed, auditable and transparent switching so as to maintain confidence in the integrity of the arrangements.

7 Options Identification & Options Analysis

Options Identification

7.1 The Gas Industry Co has identified four reasonably practicable options for switching arrangements to achieve or promote the switching objective. The options are as follows:

- **Option 1. Status Quo**

  This option assumes the current arrangements for switching would continue. The voluntary Reconciliation Code would be the sole arrangement governing gas retail customer switching.

- **Option 2. Reconciliation Code Enhancements**

  This option entails the amendment of the Reconciliation Code to specify information exchange processes, standard file formats and dispute resolution processes. The provisions of the Reconciliation Code would become regulation and be mandatory for all industry participants.

- **Option 3. Central Registry**

  The Central Registry option entails the development of a central database of record for network data and information to support the initiation of a switch, and the establishment of processes to co-ordinate switches through the registry. A Central Registry could be achieved by either a single Central Registry (one physical database of information) or a virtual Central Registry (a network of co-operative databases co-ordinated through a central system).

- **Option 4. Central Registry integrated with Allocation Mechanism**

  This option is an extension of the Central Registry option. The registry would be developed as described under option 3, but would include allocation and reconciliation processes, which establishes daily gas gate quantities by retailer, as part of the registry.

Q2:	Do you agree the Gas Industry Co has identified all reasonably practicable options to meet the switching objective? If not, please provide details of any other reasonably practicable options.

Options Analysis

7.2 Each of the above four options has been assessed against the Gas Industry Co's switching objective which is to improve consumer service levels, remove barriers to retail competition and minimise the risks and costs associated with switching processes.

7.3 The Gas Industry Co has also identified and assessed the strengths, weaknesses, benefits and potential costs of each option.

7.4 It has been assumed for options 2, 3 and 4 that arrangements will be compulsory for all industry participants (whether by way of regulations or otherwise).

Option 1. Status Quo

7.5 The issues with the current arrangements have been identified in section 5. The implications of the issues are: customer dissatisfaction, high administration costs and impeded competition.

7.6 The Status Quo option would not require any additional industry investment. However, the requirement for no investment must be considered in light of the ongoing costs to each participant of the current arrangements.

7.7 Based on information provided by industry participants, total switching costs for all retailers is approximately $40,000 per month. It is also relevant to note that switching levels for the gas industry are half the level they are for electricity, and that gas switches take around three times longer to process than electricity switches.

7.8 Accordingly, the Gas Industry Co considers that the Status Quo option does not promote or achieve the switching objective.

Q3: Do you agree with the Gas Industry Co's analysis of the Status Quo Option?

Option 2. Reconciliation Code Enhancements

7.9 This option entails an amendment of the Reconciliation Code to specify information exchange processes, standard file formats and dispute resolution processes. The option retains the current arrangement of each participant holding its own database (i.e. there is no central database of record) and the switch process would still be largely manual in nature, although there is the potential for arrangements to allow for some automation.

7.10 The key benefit of the Reconciliation Code Enhancements option is that it is a simple solution, which could be effected quickly and at low cost, as it leverages off the existing arrangements.

7.11 The enhancements would address some of the issues identified with the current arrangements, as they would remove some of the existing inefficiencies and barriers to retail competition by implementing:

- Consistent information exchange processes and standard file formats, which would reduce the processing cost to industry participants; and
- A dispute resolution process, which would reduce the time and cost involved in resolving information discrepancy disputes.

7.12 Many of the issues with the existing arrangements, however, would not be addressed by these enhancements. For example, issues relating to identifying relevant parties to a switch and data discrepancies are not addressed.

7.13 It is important to note that the Reconciliation Code Enhancements option would not substantially improve customer service levels. For example it does not address the number of data discrepancies between participant databases, or the existing risks associated with switching arrangements, such as uncertainty as to the accuracy of data.

7.14 There are no significant costs associated with implementing the Reconciliation Code Enhancements option. Whilst there could be some process improvements required by each participant to comply with the enhancements, this would require little or no capital

investment. It is anticipated that the ongoing costs of the existing arrangements would not markedly decrease.

7.15 In summary, the Reconciliation Code Enhancements option provides for low cost improvements to the existing system, which would assist to remove barriers to retail competition and reduces the costs to industry participants. It does not, however, fully achieve or promote the switching objective.

Q4:	Do you agree with the Gas Industry Co's analysis of the Reconciliation Code Enhancements Option?

Option 3. Central Registry

7.16 The Central Registry option would entail the development of a central database of record for critical ICP information to support the initiation of a switch, and the establishment of processes to co-ordinate switches through the registry.

7.17 The Central Registry option would be supported by a set of mandatory information exchange standards and registry data maintenance processes.

7.18 The key benefit of a Central Registry is that there is a single point of reference for key switching information, which switching processes can be coordinated around. The benefits of a Central Registry include that it would:

- Improve the consistency and security of information flows between parties, by having one consistent switching process for all participants, which is co-ordinated through the registry;
- Enable performance monitoring by recording information flows;
- Improve the transparency of the switching processes by recording the retailer responsible for an ICP at any point in time, including during a switch;
- Improve service levels through timely and accurate switch processes;
- Reduce information discrepancy issues by establishing a central database of record and identifying which parties are responsible for maintaining information on the registry;
- Reduce switching costs and risks by simplifying the required transactions to complete a switch, having efficient and consistent processes and by enabling processes to be automated;
- Support timely and accurate billing set up, which reduces costs to industry participants;
- Support allocation and reconciliation processes by providing a record of participant responsibilities for ICPs in relation to the allocation and reconciliation of energy purchases.

7.19 Based on the assumptions that efficiency gains from the Central Registry would enable gas switches to be completed in the same amount of time as electricity switches and based on the existing number of switches, switching costs to all retailers would be reduced by approximately $22,000 per month.

7.20 The key outcomes of implementing the Central Registry option would be to:

- Improve customer satisfaction by implementing an efficient and accurate switch process;
- Remove barriers to competition in the gas retail market by facilitating customer choice between retailers (i.e. customer can easily switch between retailers); and
- Reduce administrative inefficiencies for participants.

7.21 The implementation of a Central Registry would require significant investment from industry in terms of time and money. There would be an upfront development cost associated with the design and implementation of the registry and there would be an ongoing cost for the service provider to maintain the registry and support users.

7.22 In addition to developing and implementing the registry, a substantial data cleansing project would be required. The purpose of this work would be to create one record of data, which would require all the existing databases to be reconciled.

7.23 It is difficult to predict the costs of implementing a gas Central Registry. These costs would be influenced by the form of the registry and the required functionality.

7.24 As noted above, the electricity industry has implemented a Central Registry solution. The cost of implementing the electricity registry can considered as a possible guide to the cost of developing a gas registry. It is important to note the difference in size between the electricity industry, which has 1.7 million customers, and the gas industry, which has 230,000 customers.

7.25 The initial development of the electricity registry cost approximately $500,000.[7] This cost covered the developed and implementation of a customised physical Central Registry. In 2001, a number of new process, and enhancements to the electricity registry, were implemented. This enhancement required changes to be made to the registry, which cost approximately $90,000 to implement.[8]

7.26 It is unlikely that a green field's Central Registry project for the gas industry would cost as much as the electricity industry registry, given the smaller size of the gas market. That figure, therefore, is likely to be the upper band for development costs. If the gas registry was built as a refinement of an off-the-shelf or existing product, such as an enhanced version of the existing electricity registry, it is reasonable to assume that the cost of the system would be closer to the cost of implementing changes to the registry. It is therefore reasonable to assume that the cost of developing a central gas registry would be between $500,000 and $90,000, with a higher probability that the cost will be towards the lower end.

7.27 The operational cost of the electricity registry is approximately $120,000 per annum.[9] This covers the operation and maintenance of the registry. Operational costs for the gas registry are likely to be lower, given the substantially smaller size of the market.

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7 MARIA Registry Project: Project Closure Report (2002).

8 As above, n 6.

9 *Recovering the Costs of the Electricity Commission* (2003) Prepared by Charles River Associates for the Ministry of Economic Development.

7.28 In addition to the direct development and implementation costs of a Central Registry, industry participants would be required to undertake their own internal projects to clean up their databases and to implement the registry processes.

7.29 In the electricity industry, the cost of internal projects varied significantly across industry participants depending on the size of the organisation and the level of system and process re-engineering required. Feedback from participants indicated that some participants spent as little as $20,000, while one retailer spent $1.2 million on systems development and $300,000 on data cleanup.[10] It is anticipated that the cost to gas industry participants would be at the lower end.

7.30 The Central Registry option addresses all of the concerns identified with the current arrangements and achieves and promotes the Gas Industry Co's switching objectives. Although industry investment is required to implement such an arrangement, it is anticipated that over time the Central Registry would deliver a net benefit to industry participants and consumers.

Q5:	Do you agree with the Gas Industry Co's analysis of the Central Registry Option?
Q6:	Do you agree with the Gas Industry Co's assessment of the potential cost of the arrangement. Do you have any information about what it would cost your company to implement a Central Registry solution?

Option 4. Central Registry integrated with Allocation Mechanism

7.31 This option is an extension of the Central Registry option. In addition to developing a Central Registry as discussed above, the registry would be integrated with the allocation and reconciliation process, which establishes daily gas gate quantities by retailer. The advantage of an integrated arrangement is that it creates one solution for two related processes, which potentially reduces the transaction costs associated with each process.

7.32 Currently, allocation and reconciliation services are provided by an allocation agent who contracts directly with retailers.

7.33 The Gas Industry Co has identified a number of issues with the current allocation and reconciliation processes which would need to be addressed before an integrated solution could be developed. These issues include:

- No revision process for monthly estimates to correct for actual reads and seasonality;
- Process is potentially inequitable for incumbents;
- Lack of transparency of performance;
- Lack of governance arrangements to ensure quality and compliance.

7.34 The Gas Industry Co will be forming a project team to review and recommend any changes to the current allocation and reconciliation process. Therefore, the

[10] As above, n 6.

implementation of this option may be delayed to allow for the completion of this review, although it would be possible to implement the registry in stages.

7.35 In addition to the costs associated with developing a Central Registry, the inclusion of data necessary for allocation and reconciliation would require additional development and operational costs. Central registries integrated with an allocation mechanism have been implemented by the electricity and gas industries in Australia. The costs of implementing these systems were substantial.

7.36 This option also creates service provider reliance risks for the industry, because participants would be dependent on one service provider for both switching and allocation processes.

7.37 In respect of the switching objective, this option achieves and promotes the objective in addition to creating additional benefits associated with having a single arrangement for switching and allocation processes. This option, however, would require substantial industry investment. The Gas Industry Co is concerned that the cost of such a system could lead to adverse outcomes, such as increased costs for industry participants, which could flow through to higher costs for customers.

Q7:	Do you agree with the Gas Industry Co's analysis of the Central Registry integrated with Allocation Mechanism option?

Analysis Summary

7.38 The following table summarises the Gas Industry Co's analysis of the four switching options.

Table 3: Analysis of Switching & Registry Options

Option	Strengths	Weaknesses	Benefits	Costs	Objective
1. Status Quo		• Processes are inefficient • Costly to participants • Discrepancies between databases • Issues around non-compliance • Security of data transmission • Historical records are incomplete • Does not provide information required to complete switches	• No additional cost to industry	• Consumer dissatisfaction • High transaction costs associated with inefficient processes • Barriers to competition	Does not achieve switching objective
2. Reconciliation Code Enhancements	• Simple solution • Scope for marginal improvements • Consistent Processes • Leverage off existing systems	• Discrepancies between databases • Security of data transmission • Does not address issues identified with current system	• Low cost option • Implementation could be an interim measure • Creates some efficiency gains for participants • Marginal improvements in retail competition	• Enforcement & monitoring will be costly • Consumer dissatisfaction • Some processes still inefficient • Barriers to competition	Partially meets the switching objective: • Does not address customer dissatisfaction. • Some improvements in retail competition. • High transaction costs for participants

Option	Strengths	Weaknesses	Benefits	Costs	Objective
3. Central Registry (A Central Registry model has been implemented by the New Zealand electricity industry, provided by Jade.)	• Single point of reference • Processes can be automated • Consistent processes • Efficient and secure information exchange processes • Facilitates accurate and complete data transfer • Facilitates line charge and metering costs • Can be expanded to meet demand • Supports efficient complaints resolution	• Requires significant industry investment (time and money) • Will impose new intra company operating costs in the industry	• Improves service levels to customers • Reduces transaction costs for participants • Removes barriers to competition	• Development & implementation costs • Data cleansing costs • Ongoing operational costs	Achieves switching objective: • Improves service to customers • Removes barriers to competition • Reduces inefficiency of processes Investment from industry required
4. Central Registry integrated with Allocation Mechanism (This option has been implemented by the electricity industry in Australia, provided by Cap Gemini, and the gas industry in Australia, provided by Logica NSW/WA/SA and Vencorp in Victoria.)	As for Options 3, plus: • Single solution	As for option 3, plus: • Potentially phased implementation while allocation process review undertaken • Greater complexity and cost • Concentration of service provider power	• Improves service levels to customers • Reduces transaction costs for participants, including allocation processes • Removes barriers to competition	• Significant development & implementation costs • Data cleansing costs • Ongoing operational costs	Exceeds switching objective: • Improves service to customers • Removes barriers to competition • Reduces inefficiency of processes Significant investment from industry required, which could lead to increased costs for industry participants and consumers

Preferred Option

7.39 Based on the above assessment of each option, the Gas Industry Co considers that the Central Registry option will deliver the greatest net benefit to industry participants and consumers and, therefore, has concluded that this option is the preferred switching option.

Q8:	Do you agree that the Central Registry option is the preferred switching option for the gas industry? What are your reasons?

Part C: Preferred Option

8 Central Registry Overview

8.1 If Gas Industry Co determines that the preferred Central Registry option is the recommended option for the gas industry, the following arrangements and process will need to be developed:

- Governance, including audit and compliance, and funding arrangements;
- Definition of switching and Central Registry processes and rules; and
- Description of business requirements and system functionality; and
- Detailed system design.

8.2 The purpose of Part C is to define the proposed functionality of the Central Registry (as the Gas Industry Co's preferred switching option). The functionality is based on draft industry switching and registry processes and rules which are not included as part of this consultation paper, but will be the subject of a separate consultation process. Governance arrangements will also be subject of a separate consultation process.

8.3 The description of the proposed functionality of the Central Registry option has been divided into the following sections:

Table 4: Central Registry Functionality

Functionality
High Level Description of Central Registry system
General Functionality of the Registry
Registry Parameters & Participant Responsibilities
Switch Information Exchanges
Switch Withdrawal Information Exchanges
Switch Read Renegotiation Information Exchanges
Registry Acknowledgements & Notifications
Registry Reports

8.4 Appendix A includes a Glossary of Terms used throughout Part C.

9 High Level Description of Central Registry System

9.1 At a high level, the Central Registry system will consist of:

- The Central Registry, being a single central database (Single Central Registry) or an integrated set of participant databases (Virtual Central Registry), in which certain data are held and maintained by participants (according to specific business and system rules); and
- The mechanisms by which certain data are transferred between participants and by which the events represented by those data transfers are recorded in the Central Registry.

9.2 The Central Registry will be at the centre of the switch process to ensure that:

- A valid switch cannot occur without being passed through the Central Registry;
- Switches passing through the Central Registry are valid and complete in terms of compliance with data transfer processes; and
- Progress of the switch is tracked by monitoring and recording the files transferred between the parties.

9.3 To effectively support switching and cost allocations among participants, the proposed Central Registry must contain records for all Premises on all gas distribution networks linked (directly or indirectly) to the NGC transmission system. This means that all Premises on all current open access and non open access networks in the North Island will be included on the Central Registry.

9.4 The Central Registry will not include meter readings or consumption data but will be used in association with a database that includes consumption data for allocation and reconciliation purposes. This means that the ability to form an integrating relationship with other databases will be a feature of the Central Registry.

9.5 In designing the Central Registry system and interface mechanisms the following requirements will need to be considered:

- The expected volume of switches to be managed is 12,000 per annum.
- The Central Registry needs to be capable of 4 or more transactions for each switch;
- Retailers will require some form of “on-line” search transactions with the Central Registry to verify Premises/ICP identification prior to proceeding with a switch;
- For the above, an address search function will be required;
- Allow participants to transact with the Central Registry by means of .csv files (using FTP) and/or browser access; and
- To be extendable and reducible in terms of the range of ICP parameters that it contains and the number and type of participants.

Q9:	To what extent do you agree with the high-level description of the Central Registry's services?
Q10:	Do you agree that all Premises on all current open access and non open access networks should be included on the Central Registry? What are your reasons?

10 Central Registry General Functionality

The Central Registry: A time-series of Events

10.1 The Central Registry will primarily be a data store of Events[11] in the lifecycle of each ICP. All ICP parameter data changes result from Events and every defined stage of a switch, switch withdrawal or switch read renegotiation process is an Event. The Central Registry must have a complete Event history for each ICP.

10.2 For simplicity, five Event types are defined in this document, aligned with the data types, processes and data maintenance responsibilities:

- Network data Events;
- GMS data Events;
- Retailer data Events;
- ICP status data Events; and
- Switch process Events (including those relating to switch withdrawals and switch read renegotiations).

10.3 The Central Registry will record the Event Date (i.e. date the Event actually occurred) and the Posting Date (i.e. time/date the Event was recorded on the Central Registry) for each Event.

10.4 As the switching processes involve a strict sequence of events it will be important that Events are processed by the Central Registry in the time order that they are received by the registry.

Event Processing by the Central Registry

Footprint

10.5 The Central Registry stamps each Event with a footprint that identifies:

- The system user creating the Event; and
- The posting time/date that the Event was recorded on the Central Registry.

Notification of Events

10.6 Whenever an Event causes a change to Central Registry ICP data, the Central Registry generates a notification of the change and issues it to the relevant parties (as defined in each process concerned). The notifications will advise parties of the new data value resulting from the change.

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[11] Event means an occurrence that results in either the change to one or more ICP parameter values (an ICP Event) or the completion of a stage of a process (e.g. GNT receipt within the switch process).

Event Error Handling

10.7 The Central Registry will need to allow for corrections from the posting of erroneous Events. Errors can result from:

- Incorrect ICP being referenced by the user;
- Incorrect Event Date used; or
- Incorrect or incomplete data supplied.

10.8 Corrections will need to recognise that the error might not be related to the most recent Event – it could apply to any Event in the ICP history. Hence in correcting an error the Central Registry will need to:

- Maintain a complete audit trail of the sequence of Events; and
- Ensure that the correction does not affect the validity of any valid Events with later Event Dates.

Central Registry System Users

10.9 The following table summarises the Gas Industry Co's analysis of the interests that system users will have in the data recorded by the Central Registry.

Table 5: Central Registry system Users

User Group	Interest	Type of Interaction
Network Operators	Provide identification and visibility to gas Premises/ICPs. Obtain access to definitive data on retailer tenures and ICP status's. Line charge calculation & reconciliation.	Maintenance of retail data. Recipient of reports.
Retailers	Management of ICP switching. Reconciliation of supplier energy, line & metering charges.	Maintenance of retail data. Recipient of reports
Meter Owner	Metering charges calculation & reconciliation.	Maintenance of metering equipment data. Recipient of reports.
Allocation Agent	Allocation and reconciliation of energy purchase quantities.	Recipient of reports.
Central Registry Support Supplier	Maintenance of validation tables, security controls, system performance assurance and system maintenance.	System administrator level maintenance.
Compliance & Monitoring Organisation	Participant performance monitoring.	Recipient of reports.
Complaints Commissioner	Review of Events recorded against specific ICPs.	Individual ICP-level interrogation.
Others as agreed by Gas Industry Co	Review of Events recorded against specific ICPs.	Individual ICP-level interrogation.

Q11: Do you agree with the analysis of user interests in the Central Registry data and processes?

Central Registry Security

10.10 For each of the user groups identified in the table above, the Central Registry will need to maintain separate security profiles in relation to ICP creation and data maintenance and reporting generation capabilities.

10.11 Access levels required will need to accommodate:

- Read-only;
- Read-write;
- Manage local user access levels; and
- Manage system-wide security and validation/reference tables.

10.12 The Central Registry will need to be able to identify individual login identities and log the identity against updates made.

10.13 Maintenance of ICP data will be determined by the ICP Status, the Network Operator that created it and the Retailer and Meter Owner currently associated with it.

10.14 Multiple roles will be supported for a single login, and Read-only logins will have system-wide limitations as well as role-level validation.

10.15 Functions will be provided to allow Network Operators, Retailers and Meter Owners to manage individual user access rights within the constraints of their defined roles.

10.16 Detailed rules with respect to 'data mining' by participants will be developed with the Supplier and embedded in system security. The general rule will be that to reference an ICP a user must have an ICP identifier, an address or a meter identifier on which to search, or have a current data ownership right that provides a certain reporting capabilities.

Central Registry Tables

10.17 Central Registry data and related processes include a number of validations that will be supported by the Central Registry system – probably through use of internal tables. The areas of validation will include:

- Security profiles including maintenance rights according to ICP status;
- Retailer, Network Operator and Meter Owner codes;
- Gas Gate, Register Content and Profile codes; and
- Mapping of certain ICP network data valid values to Network Operator code.

10.18 It will be possible to remove (or expire) codes from use in the registry, for example where they are no longer being used or become irrelevant, without losing their interpretation for historical queries.

Q12: To what extent do you agree with the Central Registry general functionality described in this section?

11 Registry Parameters & Participant Responsibilities

General

11.1 The ICP parameter data recorded on the Central Registry will be populated and maintained by Network Operators, Retailers and Meter Owners – each having responsibility for a specific set of ICP parameters.

11.2 Network operators will be the only parties able to create ICPs on the Central Registry, and the values attributed to the various ICP network parameters will be determined by the identity of the Network Operator creating the ICP.

11.3 Likewise, access to populating or maintaining Retail and GMS parameter data for an ICP will be determined by the 'currency' of the Retailer attempting the maintenance.

11.4 Specific processes and controls will be required for the initial population and subsequent maintenance of ICP data on the Central Registry.

11.5 The following tables sets out the registry parameters which will be maintained by Network Operators, Retailers and Meter Owners.

Table 6: Network Parameters Maintained by Network Operator

Parameter	Business/System Rule
ICP Identifier*	Valid against algorithm provided
ICP creation date*	Date ICP created by Network Operator. Past date.
Network Operator*	Valid Network Operator code. As per table of codes.
Gas Gate Code	Valid Gas Gate code. As per table of codes.
ICP Connection Type code*	Valid ICP Connection Type code. As per table of codes.
Network pressure	Network pressure in kPa at network connection.
ICP Altitude	Altitude of the GMS at the ICP, in metres.
Load shedding category	An alpha character in range A to G inclusive.
Maximum Hourly Quantity	The MHQ that the equipment at the gas installation is capable of drawing (not the service capacity). Blank if unknown.
Proposed Retailer	Valid party code of the Retailer expected to be the first supplier for the ICP. As per table of codes.
Network Price Code	Valid code to define fixed and variable prices as defined by the Network. As per table of codes.
Loss Factor Code	Valid code to define the loss factor for the ICP, as defined by the Network. As per table of codes.
Network Price details	Free Text Field for other information relevant to network pricing at the ICP
Physical Address Unit	Ref NZ Post standard
Physical Address Num	Street or RPD Number. Ref NZ Post standard
Physical Address Street*	Ref NZ Post standard
Physical Address Suburb*	Ref NZ Post standard
Physical Address Town*	Ref NZ Post standard
Physical Address Post code	Ref NZ Post standard. Optional
Physical Address Region*	Ref NZ Post standard
Address property name	Additional description to ensure uniqueness of ICP address. Optional

* Minimum required for ICP creation (For Suburb or Town, at least one required - not necessarily both)

Table 7: Retail Parameters Maintained by Retailer

Parameter	Business/System Rule
Retailer	Party code of Retailer at ICP. As per table of codes.
Allocation Group Code	Valid code. As per table of codes.
Profile Code	Valid code. As per table of approved codes.
Meter Owner Code	Party code of the Meter Owner at ICP. As per table of codes.

Table 8: GMS Parameters maintained by Meter Owner

Parameter	Business/System Rule
Meter Identifier	Serial number (or other visible identifier) on the Meter for the ICP.
Standard Meter	Y(es)/N(o)
Prepay Meter	Y(es)/N(o)
Logger Owner	Valid party code. As per table of codes.
Corrector Owner	Valid party code. As per table of codes.
Telemetry Owner	Valid party code. As per table of codes.
GMS Price Code	Valid code to define the charge type for the GMS setup for the ICP, as defined by the Meter Owner.

11.6 Where a particular type of metering equipment is not associated with the ICP there will be a “NONE” party code.

Retailer & Network Operator Responsibilities

11.7 The following table sets out the ICP status parameters which will be maintained by Retailers and Network Operators.

Table 9: ICP Status Parameters Maintained by Retailer and Network Operator

Field	Business/System Rule
ICP Status Code	Single digit numeric code to reflect the ICP Status of New, Ready, Active, Inactive, or Decommissioned.
ICP Status Reason Code	Single digit numeric code to reflect the ICP Status Reason. Mandatory to accompany ICP Status changes: between Active and Inactive statuses and To Decommissioned status.

Responsibilities at ICP Creation

11.8 The Network Operator will create new ICPs on the Central Registry.

11.9 The minimum data to be populated to create an ICP in a ‘New’ ICP status are; ICP Identifier, ICP creation date, Network Operator code, ICP Type, Address Street Name, Address Region and Address Town or Address Suburb.

11.10 New ICPs will remain in a ‘New’ status until all mandatory network parameters are populated by the Network Operator. Once all are populated the Central Registry will automatically change the ICP Status to ‘Ready’.

First Retailer Uplift

11.11 While in the Ready status, the Retailer will populate the ICP retail parameters (Retailer Code, Profile and Meter Owner).

11.12 Once the Meter Owner code is populated by the Retailer, the Meter Owner will populate the Meter Identifier and the Metering Equipment data. The Retailer then may update the ICP Status (Active and Inactive only) and the Status Reason (If in Inactive status).

11.13 The status change from 'Ready' will not be available until all the retail and GMS parameters are fully populated with valid data.

Ongoing ICP data maintenance

11.14 Maintenance of the ICP Central Registry data will be available to the Network Operator, the Retailer and the Meter Owner according to their access rights indicated earlier and the status of the ICP at the time.

11.15 A Network Operator will maintain network data only on ICPs that have that Network Operator's code and Retailers can maintain retail data only on ICPs that have the Retailer currently linked.

11.16 A Meter Owner will maintain GMS data only on ICPs that have the Meter Owner's code recorded in the retail data for the ICP.

11.17 Retailers and Meter Owners will not be able to maintain data on ICPs in the 'New' or 'Decommissioned' statuses.

11.18 Access to changes of ICP status by Network Operators and Retailers will be controlled.

ICP Decommissioning

11.19 Decommissioning of an ICP represents placing the ICP in a status that allows no new events to be recorded for it by either the Network Operator or Retailer.

11.20 Only the Network Operator can decommission an ICP and then only after the Retailer has placed the ICP in an Inactive status.

Q13:	Do you agree with the proposed ICP parameters for the registry?
Q14:	To what extent do you agree with the proposed participant responsibilities, in particular the proposal that GMS parameters on the registry are maintained by meter owners?

12 Switch Information Exchanges

General

12.1 The following processes relate to the switching of Premises that remain on the same network and retain the same ICP identifier throughout the whole switch process.

12.2 The process for dealing with By-pass switches, which are accommodated within the ICP creation and decommissioning processes, is summarised at the end of this section.

12.3 'ICP switching' is a system representation of customer switching between Retailers, except that it includes the scenario of when a customer moves in to a vacant Premises and chooses a Retailer different from the one that most recently supplied the Premises. In the 'Move In' scenario the customer does not switch, because the customer has no Retailer contracted at that Premises to switch from. The Central Registry will have a Retailer for the ICP (the one that most recently supplied the premises) and therefore the ICP will switch. The only parties active in these ICP switching information exchanges are the New Retailer, the Old Retailer and the Central Registry.

12.4 Where the New Retailer intends to change the metering as part of a switch, the GMS data change is a separate Central Registry update action undertaken by the Meter Owner, normally after completion of the switch.

12.5 Until an ICP switch is complete, the Central Registry will record the Old Retailer as being the ICP's Retailer.

Gas Notification of Transfer

12.6 The first of the switch information exchanges between Central Registry participants is a Gas Notification of Transfer (GNT).

New Retailer Responsibilities

12.7 Having decided to proceed with a contract to supply a customer at an existing ICP, the New Retailer will forward a GNT for that ICP to the Old Retailer, via the Central Registry.

12.8 Every GNT will include:

- ICP number (mandatory);
- Meter Identifier (optional);
- Premises Address (mandatory);
- Customer Name (optional);
- Requested Switch Date (mandatory if a Move-In Switch);
- Request for last twelve months meter reading history (optional); and
- The Switch Type being requested (mandatory).

Central Registry Processing of the GNT

12.9 On receipt of the GNT, the Central Registry will:

- Perform a validation of the existence and contents of the data in the GNT;
- Issue an acknowledgment of receipt of the GNT to the sender within 24 hours of Central Registry receipt;
- In the acknowledgement, include an acceptance or rejection code which, if there is rejection, identifies the reason for rejecting the GNT;
- Record on the Central Registry the date and time of receipt of the accepted GNT; and
- Within 24 hours of Central Registry receipt, on-forward the GNT advice to the Retailer recorded on the Central Registry as currently responsible for the ICP.

Central Registry Validation of GNT

12.10 The validations to be performed by the Central Registry on GNT advice are:

- The ICP identifier is valid;
- There is no other Switch or Switch Withdrawal in progress;
- The sending Retailer is not the ICP's Retailer on the Central Registry;
- The 'Switch Type' code is valid;
- All mandatory data, depending on Switch Type, are included in the advice;
- The ICP Status on the Central Registry is either 'Active' or 'Inactive'.

12.11 In the event that the GNT fails any one of these validations, the GNT acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

Old Retailer Response to GNT receipt

12.12 Within 2 working days of receipt of a GNT advice from the Central Registry, the Retailer (Old Retailer) is required to respond to New Retailer (via the Central Registry) with a 'Gas Acceptance Notice' or a 'Gas Transfer Notice' or a 'Gas Switch Withdrawal Notice'.

12.13 The following sections describe the information exchange and Central Registry functions in cases where there is no Gas Switch Withdrawal Notice. Switch withdrawal processes are dealt with in following section.

Old Retailer Response with a Gas Acceptance Notice (GAN)

Old Retailer Responsibilities

12.14 The Old Retailer issues a GAN as confirmation of the receipt of the GNT advice and advises any qualification or reservation that might be associated with the switch.

12.15 Every GAN will contain the following (all mandatory) information:

- ICP number;
- Expected Switch Date; and
- Gas Acceptance Response Code.

Central Registry processing of the GAN

12.16 On receipt of the GAN, the Central Registry will:

- Perform a validation of the existence and contents of the data in the GAN;
- Issue an acknowledgment of receipt of the GAN to the sender within 24 hours of Central Registry receipt;
- In the acknowledgement, include an acceptance or rejection code which, if there is rejection, identifies the reason for rejecting the GAN;
- Record on the Central Registry the date and time of receipt of the accepted GAN; and
- Within 24 hours of receipt, on-forward the GAN to the Retailer recorded on the Central Registry as having sent the last GNT for the ICP.

Central Registry Validation of GAN

12.17 The validations performed by the Central Registry on the GAN are:

- The ICP identifier is valid;
- All mandatory data are included in the advice; and
- The Acceptance Response Code is valid according to a table of valid codes.

12.18 In the event that the GAN fails any one of these validations, the GAN acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

Old Retailer Response with a Gas Transfer Notice (GTN)

Old Retailer Responsibilities

12.19 Unless there is a Gas Switch Withdrawal processed beforehand, the Old Retailer must issue a Gas Transfer Notice (GTN) to the New Retailer via the Central Registry either:

- Within 2 working days of receipt of the GNT from the Central Registry (if no GAN issued); or
- Within 23 working days of receipt of the GNT from the Central Registry (if GAN issued).

12.20 Every GTN will contain data relating to the two levels of information required to be transferred between Retailers – ICP/GMS-level data and meter Register-level data. For each of those levels the data in the GTN are:

- ICP/GMS – level (all mandatory)
  - ICP number;
  - Switch Date (becomes the switch event date on the Central Registry);
  - Meter Identifier;
  - Estimated 12 months usage;
  - Old Retailer has key for access to meter (Yes/No);
  - Number of Registers for which Register-level data are being provided;
  - Last Actual Read Date;
  - Meter Pressure;
  - Meter Location Code;
- Register-level (all mandatory if Register level data are required)
  - ICP Number;
  - Number of Dials;
  - Register Content Code;
  - Multiplier;
  - Switch Reading; and
  - Switch Reading Type (Actual or Estimate).

Central Registry processing of the GTN

12.21 On receipt of the GTN, the Central Registry will:

- Perform a validation of the existence and, where applicable, the contents of the data in the GTN;
- Issue an acknowledgment of receipt of the GTN to the sender within 24 hours of Central Registry receipt;
- In the acknowledgement, include an acceptance or rejection code which, if there is rejection, identifies the reason for rejecting the GTN;
- Record on the Central Registry the date and time of receipt of the accepted GTN;

- Record on the Central Registry the change of Retailer from the Switch Event Date contained in the GTN;
- Within 24 hours of Central Registry receipt, on-forward the GTN to Retailer recorded on the Central Registry as having sent the last GNT for the ICP;
- Provide notifications of the change in Retailer and Switch Date to the Network Operator and Meter Owner recorded for the ICP on the Central Registry.

Central Registry Validation of GTN

12.22 The validations performed by the Central Registry on the GTN are:

- The ICP identifier is valid;
- ICP identifier in the ICP/GMS level data must be the same as that in Register-level data;
- All mandatory data exist in the advice;
- Meter Identifier included in the GTN must match the Meter Identifier held on the Central Registry for the ICP;
- The Register Content and Meter Location codes must be valid;
- If the switch is a Move-In Switch, the Switch Date contained in the GTN must be not earlier than the Requested Switch Date in the initiating GNT advice;
- If 'Number of Registers' is greater than '0', Register data must exist;
- There is a set of Register-level data for the same number of Registers as specified at the ICP/GMS-level;
- The number of digits in the Switch Read must be the same as the number of dials specified for that Register-level data.

12.23 In the event that a GTN fails any one of these validations, the GTN Acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

By-Pass Network Switch Process

12.24 Where a Retailer uses network by-pass to switch a customer, the New Retailer must ensure prior notification of the cancellation of the customer's contract with the Old Retailer and (if applicable) the customers contract with the old Network Operator.

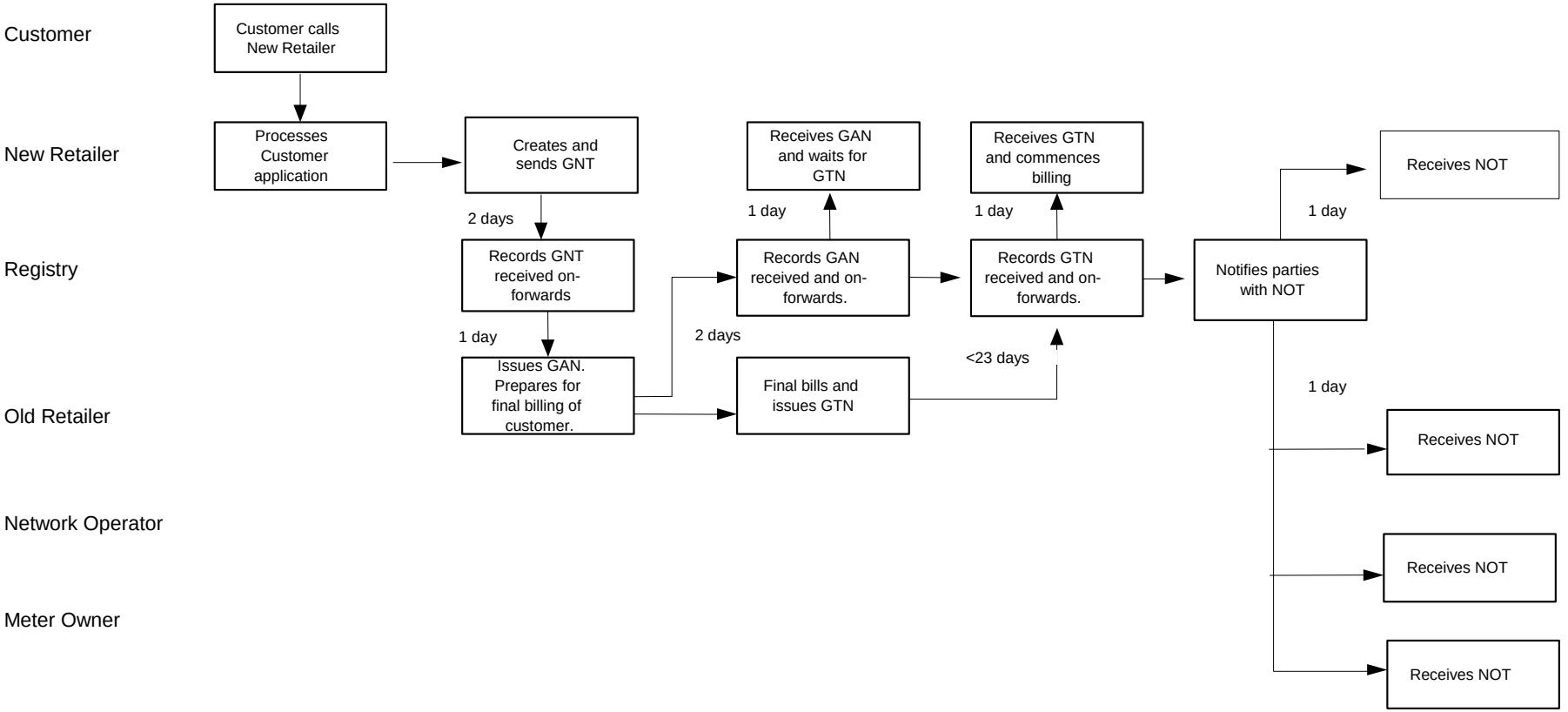
12.25 In all cases of switching by means of network by-pass:

- The ICP being by-passed is treated as being subject to permanent disconnection (and decommissioning if so desired by the Network Operator); and
- The ICP created in the process of by-pass must be added to the Central Registry if the by-pass network is directly or indirectly connected to the NGC transmission system.

Q15:	To what extent do you agree with the proposed switching information exchange process?

12.26 The following diagram summarises the switch information flow.

Table 10: Switch Information Flow Diagram



13 Switch Withdrawal Information Exchanges

General

13.1 In the event that either of the Retailers involved believes that a completed switch or an in-progress switch should be reversed or withdrawn, the Retailer can request that by means of a Gas Switch Withdrawal Notice (GWN).

13.2 The time period within which a GWN can be initiated will be the period from the time that a GNT is issued by a New Retailer until the time that same Retailer receives a GNT as the first stage of a subsequent loss of the ICP.

13.3 Central Registry functionality is required to manage and record the exchange of requests, acceptances or rejections relating to switch withdrawals.

13.4 In the processing descriptions below, the requesting Retailer is the Retailer that requested the switch withdrawal, irrespective of whether it was the New Retailer or Old Retailer in the switch concerned. Likewise the recipient Retailer can be either the New Retailer or Old Retailer.

Processing a Gas Switch Withdrawal Notice (GWN)

Requesting Retailer's Responsibilities

13.5 The Retailer requesting that a switch be withdrawn will issue a GWN to the other Retailer involved, via the Central Registry.

13.6 Every GWN will include the following (all mandatory) data:

- ICP identifier;
- Requesting Retailer's role at the time of the GNT (New or Old Retailer);
- Withdrawal request reason.

Central Registry Processing of the GWN

13.7 On receipt of the GWN, the Central Registry will:

- Perform a validation of the GWN;
- Within 24 hours of Central Registry receipt, issue an acknowledgment of receipt of the GWN to the sender;
- In the acknowledgement, include an acceptance or rejection code which, if there is rejection, identifies the reason for rejecting the GWN;
- Record on the Central Registry the date and time of processing the accepted GWN;
- Within 24 hours of Central Registry receipt, on-forward the accepted GWN to either the current or previous Retailer for the ICP on the Central Registry, whichever did not issue the GWN.

Central Registry validation of the GWN

13.8 The validations performed by the Central Registry on the GWN are:

- The ICP identifier is valid;
- All mandatory data is included;
- The codes included in the GWN for 'Requesting Retailer's role' and 'Withdrawal Request reason' are valid; and
- The requesting Retailer is either ICP's Retailer on the Central Registry or was the ICP's Retailer prior to the last completed switch.

13.9 In the event that a GWN fails any one of these validations, the GWN Acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

Processing a Gas Switch Withdrawal Response (GWR)

Recipient Retailer's Responsibilities

13.10 Within 2 working days of receiving a GWN from the Central Registry, the recipient Retailer must either accept or decline the request by sending a Gas Switch Withdrawal Response (GWR) to the requesting Retailer, via the Central Registry.

13.11 Every GWR will include the following (mandatory) data:

- ICP identifier; and
- Withdrawal request response code.

Central Registry Processing of the GWR

13.12 On receipt of the GWR, the Central Registry will:

- Perform a validation of the GWR;
- Within 24 hours of Central Registry receipt, issue an acknowledgment of receipt of the GWR to the sender;
- In the acknowledgement, include an acceptance or rejection code which, if there is rejection, identifies the reason for rejecting the GWR;
- Record on the Central Registry the date and time of processing the accepted GWR;
- If the withdrawal response code in the accepted GWR is an acceptance, the Central Registry records either cancellation of the switch in progress (if there is one) or reversal of the most recent completed switch – in that order;
- If the withdrawal response in the accepted GWR is a rejection, the Central Registry records cancellation of the GWN only. That is, the Central Registry with show the ICP in the same status as it was prior to the raising of the GWN;

- Within 24 hours of Central Registry receipt, on-forward the GWR to the Retailer that raised the GWN;
- Provide notifications of any change in Retailer resulting from the GWR acceptance, to the Network Operator and Meter Owner recorded for the ICP on the Central Registry.

Central Registry validation of the GWR

13.13 The Central Registry validates the GWR by checking:

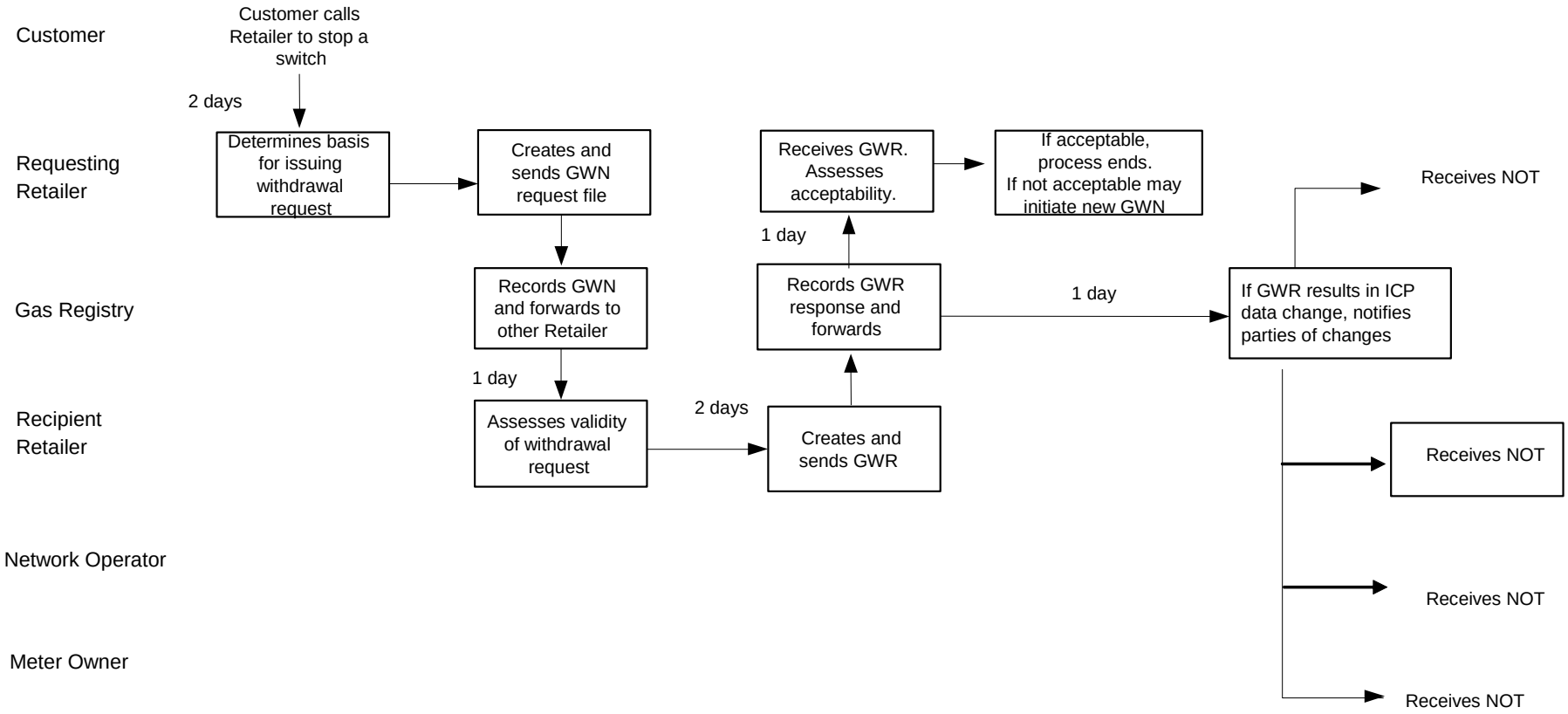
- The validity of the ICP identifier;
- That a valid Withdrawal Acceptance/Rejection code is included;
- That the most recent previous switch process event recorded for the ICP was a GWN involving the same two Retailers.

13.14 In the event that a GWR fails any one of these validations, the GWR Acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

Q16: To what extent do you agree with the proposed switch withdrawal process?

13.15 The following diagram summarises the switch withdrawal information flow.

Table 11: Switch Withdrawal Information Flow Diagram



14 Switch Read Renegotiation Information Exchanges

General

14.1 In the event that one or other of the Retailers involved believes that a completed switch has a seriously incorrect Switch Reading in the GTN, a Retailer can process a Switch Read Renegotiation Request (GRR).

14.2 By the time the GRR is issued, the request is for confirmation of a change in the Switch Reading for use in the allocation and reconciliation processes.

14.3 It will only be possible to raise a GRR for the most recent Switch.

14.4 Central Registry functionality is required to accommodate and record the exchange of requests, acceptances or rejections relating to the Switch Reading change. There is no change to Central Registry ICP data as a result of the processing.

14.5 In the process descriptions below, the 'Requesting Retailer' is the Retailer that requested the read renegotiation. It can be either the New Retailer or Old Retailer in the Switch concerned. Also, the 'Recipient Retailer' can be either the New or Old Retailer.

Processing a Renegotiation Request (GRR).

Requesting Retailer's Responsibilities

14.6 The Retailer requesting the Switch Reading change will issue a GRR to the other Retailer involved, via the Central Registry.

14.7 Every GRR will include the following (mandatory) data:

- ICP identifier;
- Switch Event Date;
- Meter Identifier;
- Meter Register Content Code of the Switch Reading; and
- Replacement Switch Reading.

Central Registry Processing of the GRR

14.8 On receipt of the GRR, the Central Registry will;

- Perform a validation of the contents of the GRR;
- Within 24 hours of Central Registry receipt, issue an acknowledgment of receipt of the GRR to the sender;
- In the acknowledgement, include an indicator of acceptance or rejection (by means of an error code) of Central Registry processing of the GRR;

- Record on the Central Registry the date and time of receipt of the GRR and the processing acceptance or rejection code;
- Within 24 hours of Central Registry receipt, on-forward the GRR to the other Retailer that was party to the last switch of the ICP.

Central Registry validation of the GRR

14.9 The validations performed by the Central Registry on the GRR are:

- The ICP identifier is valid;
- All mandatory data are included;
- The Meter Identifier included in the GRR is the same as that recorded on the Central Registry for the ICP; and
- There is not ICP switch in progress.

14.10 In the event that a GRR fails any one of these validations, the GRR acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

Processing a Renegotiation Request Confirmation (GRC)

Recipient Retailer's Responsibilities

14.11 Within 3 working days of receiving a GRR from the Central Registry, the recipient Retailer will be required to either accept or decline the request by sending a Gas Renegotiation Request Confirmation advice (GRC) to the requesting Retailer, via the Central Registry.

14.12 Every GRC will include the following (mandatory) data:

- ICP identifier; and
- Renegotiation request confirmation code

Central Registry Processing of the GRC

14.13 On receipt of the GRC, the Central Registry will:

- Perform a validation of the GRC;
- Within 24 hours of Central Registry receipt, issue an acknowledgment of receipt of the GRC to the sender;
- In the acknowledgement, include a code indicating acceptance or rejection of Central Registry processing of the GRC;
- Record on the Central Registry the date and time of receipt of the valid GRC and the acceptance or rejection reason it contains; and

- Within 24 hours of Central Registry receipt, on-forward the GRC to the requesting Retailer.

Central Registry validation of the GRC

14.14 The Central Registry will validate the GRC by checking:

- The validity of the ICP identifier; and
- That a valid Acceptance/Rejection code is included.

14.15 In the event that a GRC fails any one of these validations, the GRC acknowledgement will include the relevant rejection code and there will be no processing Event recorded on the Central Registry.

Q17:	To what extent do you agree with the proposed transfer read renegotiation process?

15 Registry Acknowledgements & Notifications

15.1 It is important to note that the use of acknowledgements and notifications might be dependent on the structure of the solution proposed (i.e. whether it involves a single or virtual Registry). The following section tends to reflect a single (separate) registry situation.

15.2 Each attempted change to an ICP parameter on the Central Registry and each attempted step in the switch processes (including withdrawal and read renegotiation processes) will be acknowledged by the Central Registry by means of an acknowledgement record (ACK), advising either the acceptance (and thereby success) of the change or the rejection (and thereby failure) of the change.

15.3 In the case of a rejection of an attempted change of ICP parameter data or rejection of a switch process step, the Central Registry will include a reason for rejection in the ACK to the participant that attempted the change.

15.4 Each successful change to an ICP parameter value will be notified, by means of a notification record (NOT), to all participants that have an interest in the ICP. The notification will include the changed value of the parameter that has changed.

15.5 Notifications will not be required for failed attempted changes.

Acknowledgments and Notifications from Switch processing

15.6 Each notice issued as part of the switch process will have an ACK issued by the Central Registry to the issuer of the notice. A NOT is issued only at the completion of the switch.

15.7 On receipt and acceptance of the Gas Transfer Notice from the Old Retailer (GTN), the Central Registry forwards a NOT to the Old Retailer, New Retailer, Network Operator and Meter Owner.

15.8 In addition to the ICP Identifier, New Retailer and Retailer change Event Date, the NOT will contain the new values for all other ICP parameters that have changed for the ICP on that Event Date.

Acknowledgments and Notifications from Switch Withdrawal processing

15.9 Each notice issued as part of the switch withdrawal process will have an ACK issued by the Central Registry to the issuer of the notice. A NOT is issued only if the switch withdrawal results in a change to Retailer recorded for the ICP on the Central Registry.

15.10 Where a GAN results in the reversal of a previously completed switch Event, a NOT is required to be sent to the Old Retailer, New Retailer, Network Operator and Meter Owner advising of the reversal.

15.11 The NOT will contain the code of the Retailer reinstated as a result of the reversal and the Event Date relating to that reinstatement/reversal.

Acknowledgments and Notifications from Switch Read Renegotiation

15.12 Each notice issued as part of the Switch read renegotiation process will have an ACK issued by the Central Registry to the issuer of the notice. Whatever the outcome of the process there is no NOT required.

Acknowledgements and Notifications from ICP data changes

15.13 The Central Registry will issue an ACK for every ICP parameter data update request received by it, within 24 hours of receipt and that acknowledgement shall indicate the acceptance or rejection (with reason for rejection), according to the validation criteria.

15.14 On receipt and acceptance of the ICP data update request, the Central Registry forwards a NOT to the Retailer, Network Operator and Meter Owner current on the Central Registry for the ICP, even if the party initiated the change.

15.15 In the case of an ICP Status Change from New to Ready, a Notification is sent to the Proposed Retailer as populated on the gas Registry by the Network Operator.

15.16 If the ICP is in the process of being switched at the time that a Network Operator or Meter Owner updates data on an ICP, both the Old and New Retailers will receive a notification record from the Central Registry.

15.17 The notification record from an ICP data update will include all the information that has changed on the Event Date concerned. This means that participants accept that notifications can represent the net effect of a day's worth of data updates on an ICP.

Q18:	Do you agree with the proposed gas registry acknowledgements and notifications process?

16 Central Registry Reports

General

16.1 This section outlines examples of the reports from the registry's data that will be required on a regular basis by industry participant. Reports on registry data may be required to manage any internal reconciliation needs that might exist and to assist with allocation and reconciliation requirements for energy, network and metering services. The list of reports in this section is not exhaustive and is in addition to the notifications and acknowledgements outlined in section 15.

16.2 There will be a requirement for the registry to provide for ad hoc report creation by participants, governed by their particular data access rights.

Reports for Audit and Compliance Monitoring Purposes

16.3 There will be a requirement for reports to be prepared regularly for audit and compliance monitoring purposes.

Reports to Network Operator Participants

16.4 A monthly report of Retailer ICP tenures for all the Network Operators ICPs to enable the Network Operator to allocate fixed charges by Retailer and reconcile the tenures on the Central Registry with those included in the ICP-level consumption files provided by Retailers.

Reports to Retailer Participants

16.5 A monthly report of the Retailer's tenure of all ICPs that were at any time during the month under the responsibility of the Retailer. This will include a full set of data for all those ICPs and for each status that an ICP was in during the month. The purpose is for reconciliation of charges received from the Network Operator, the Metering Equipment owners and the Allocation agent (energy).

16.6 For internal audit and compliance purposes, Retailers will require reporting facilities for:

- Checking of selected ICP's, by means of download of Event history at ICP level; and
- Measuring own performance with respect to the various standards included in the industry protocol.

Reports to Meter Owner Participants

16.7 A monthly report of Retailer ICP tenures for each ICP that the Meter Owner was assigned to during the month to enable the Meter Owner to allocate GMS charges by Retailer.

16.8 A monthly report of Meter Owner changes for ICPs where the participant is the Meter Owner added to or removed from the ICP.

Reports to the Allocation Agent

16.9 A monthly report of Retailer ICP tenures, which will enable the Allocation agent to identify anomalies between the ICP tenures included in the ICP-level consumption files and those shown on the Central Registry.

16.10 A 12-month report of Retailer ICP tenures upon which to conduct the annual reconciliation of energy purchases between Retailers.

Q19: Do you agree with the proposed registry reporting capability?

Appendix A: Glossary of Terms

This glossary contains definitions of terms included within this consultation paper.

- **Allocation Agent** means the person or organisation responsible for attributing and allocating quantities of energy to all Retailers purchasing gas at a particular Gas Gate;
- **Allocation Group** means group that an ICP belong to, which identifies the means used to generate the profiled consumption information for the ICP;
- **By-pass** means the physical by-pass of a gas service connecting a Premises to one network by a gas service connecting the same Premises to a different network;
- **By-pass Switch** means a Switch by way of By-pass, with the simultaneous replacement of both the Network Operator and the Retailer servicing a Premises;
- **Corrector** means a device that dynamically replaces any one or more of the fixed factors otherwise required to convert gas volume measured at actual conditions to volume measured at standard conditions;
- **Dials** (or Register Dials) means the number of dials (for clock-type) or digits (for cyclo-type) of a Meter or Corrector Register that are read to convey the Register Reading;
- **Embedded Network** means a gas distribution network connected to a Local Network and with no direct connection to the NGC transmission system;
- **Event** means an occurrence that results in either the change to one or more ICP parameter values (an ICP Event) or the completion of a stage of a process (e.g. GNT receipt within the switch process);
- **Event Date** means the date on which an Event is deemed to have occurred for the purpose of identifying switching and allocation responsibilities.
- **Expected Switch Date** means the date that the Old Retailer expects (but does not guarantee) to be the Switch Date, and provides to the New Retailer in a Gas Acceptance Notice;
- **Gas Acceptance Notice** (GAN) means a notice provided by the Old Retailer to the New Retailer to advise acceptance or qualified acceptance of a Gas Notification of Transfer (GNT);
- **Gas Gate** means a point of connection between two gas networks;
- **Gas Notification of Transfer (GNT)** means a notification from the New Retailer to the Old Retailer advising transfer of the ICP, and providing specific data relating to that ICP;
- **Central Registry** means the database (or number of databases viewed by users as a single entity) used to record time series data on gas ICPs and events related to ICP switching;

- **Central Registry Acknowledgement** means an advice issued by the Central Registry to a participant as acknowledgement of data received from that participant and as advice of either acceptance or rejection of the participant's data for Central Registry processing;
- **Central Registry Notification** means an advice issued by the Central Registry to specified participants notifying of a change of an ICP parameter value on the Central Registry;
- **Gas Switch Withdrawal Notice (GWN)** means a notice issued by either the Old Retailer or New Retailer parties to a Switch, requesting that the Switch be cancelled or reversed;
- **Gas Switch Withdrawal Reason** means the reason provided by a Retailer for requesting a switch withdrawal;
- **Gas Switch Withdrawal Response (GWR)** means a notice issued by the (Retailer) recipient of a GWN advising of either acceptance or rejection of the withdrawal request;
- **Gas Transfer Notice (GTN)** means a notice from Old Retailer to New Retailer, containing the information necessary to complete a Switch;
- **GMS** (Gas Measurement System) means the combination equipment required for gas measurement at an ICP. Definition is same as in the Gas Act;
- **GMS Price Code** for an ICP means the code that identifies the price charged by the metering equipment owners for use of the GMS;
- **ICP** (Installation Control Point) means the point of connection at which a Premises is deemed to have gas supplied from a gas network;
- **ICP Identifier** means the unique 15-character identifier for an ICP;
- **ICP Connection Type** means the type of connection that an ICP has with a network, indicating certain switching and allocation features of the ICP;
- **ICP Status** means the connection status of the ICP for switching and allocation purposes. Refer to the Gas ICP Status and Status Reason Protocol;
- **ICP Status Reason** means the reason given by a Retailer or Network Operator for giving an ICP a particular ICP Status. Refer to the Gas ICP Status and Status Reason Protocol;
- **Last Actual Read Date** means the most recent date that an ICP had an Actual Reading taken;
- **Local Network** means a gas distribution network connected directly to the NGC transmission system;
- **Losses**, for a particular network and period, means the difference between the sum of all gas quantities injected into the network and the sum of all gas quantities measured or estimated as having exited the network;

- **Loss Factor**, for an ICP, means the factor by which a measured (or estimated) quantity of gas must be multiplied in order to allocate a share of the expected gas losses to the ICP. Refer Gas ICP and Parameters Protocol for detailed description;
- **Loss Factor Code,** for an ICP, means the code that identifies the Loss Factor applicable to it;
- **Loss Ratio**, for a particular network and period, means Losses as a percentage of the gas quantity injected into that network;
- **Meter** means the piece of Metering Equipment used to measure the volume of gas supplied to a Premises. Also refer to NZS 5259;
- **Meter Identifier** means the serial number or other identifier visible on the Meter;
- **Metering Equipment** means any one or combination of a standard Meter, prepay Meter, Corrector, datalogger or the telemetry at an ICP;
- **Meter Location Code** means a code that is passed from Old Retailer to new Retailer during the switch process to advise the location of the Meter on the Premises being switched;
- **Meter Owner** means the party that owns the standard or prepay Meter at an ICP;
- **Multiplier** (or Register Multiplier) means the number by which the difference between two Register Readings must be multiplied to convert the difference to the volume, in cubic metres, of gas that passed through the Metering Equipment;
- **Move-In Switch** means a New Retailer's gain of a customer at a Premises where the customer does not have a current contract with the Old Retailer;
- **Network Operator** means the operator of the Local Network or Embedded Network to which that operator's ICPs are connected;
- **New Retailer** means the Retailer who has most recently been authorised by a customer to supply gas to the Premises where the customer takes, or is about to take, gas supply;
- **Non open access network** means a gas network on which the Network Operator allows one Retailer only to trade on;
- **Old Retailer** means the Retailer that is either currently supplying, or last supplied, gas at a Premises where a customer has made an Application for Supply to a New Retailer;
- **Open access network** means a gas network that is open to any number of Retailers to trade on;
- **Premises** means the property to which gas is, or is to be, supplied;
- **Profile** means the shape against which the gas usage at an ICP is disaggregated into daily time intervals, for allocation and reconciliation purposes;

- **Profile Code** means the code identifying any Profile currently be assigned to an ICP;
- **Proposed Retailer** means the Retailer that the Network Operator believes to be the most likely to become the first Retailer at a particular ICP;
- **Register** means the component of a Meter or Corrector that displays the Register Reading;
- **Register Content Code** means the code that identifies the extent to which a reading displayed by a Register contains correction toward a standard conditions measurement.
- **Register Reading** means the number displayed by (or estimated for) a Register at a particular date and time;
- **Requested Switch Date** means the date requested by a New Retailer for a Premises to Switch from the Old Retailer. It has relevance only to Move In type Switches;
- **Retailers** means the suppliers of gas (energy and/or network) services to end use customers;
- **Switch** means the change of Retailer supplying gas to a Premises;
- **Switch Date** means the date from which a New Retailer commences supply of gas to a Premises;
- **Switch Type** means the type of Switch being requested by the New Retailer- Standard Switch or Move-In Switch;
- **Switch Reading** means a the Register Reading provided by the Old Retailer to the New Retailer as applicable to the Switch Date;
- **Switch Read Renegotiation Request (GRR)** means a request from the New Retailer to the Old Retailer for a change to the Switch Reading provided;
- **Switch Read Renegotiation Confirmation (GRC)** means the acceptance or rejection confirmation notice from the Old Retailer to the New Retailer in response to a particular GRR;
- **Unaccounted for Gas (UFG)**, for a particular network and period, means the difference between the actual Losses and the sum of all gas quantities measured or estimated as having exited the network multiplied by their applicable Loss Factors.

Appendix B: Format for Submissions

To assist the Gas Industry Co in the orderly and efficient consideration of stakeholders' responses, a suggested format for submissions has been prepared. This is drawn from the questions posed throughout the body of this consultation document.

Respondents are also free to include other material in their responses.

Table 12: Format for Submissions

QUESTION	COMMENT
Part A	
Q1: Do you agree that the Gas Industry Co has identified the key issues in relation to current customer switching?	
Q2: Do you agree the Gas Industry Co has identified all reasonably practicable options to meet the switching objective? If not, please provide details of any other reasonably practicable options.	
Q3: Do you agree with the Gas Industry Co's analysis of the Status Quo Option?	
Q4: Do you agree with the Gas Industry Co's analysis of the Reconciliation Code Enhancements Option?	
Q5: Do you agree with the Gas Industry Co's analysis of the Central Registry Option?	
Q6: Do you agree with the Gas Industry Co's assessment of the potential cost of the arrangement. Do you have any information about what it would cost your company to implement a Central Registry solution?	
Q7: Do you agree with the Gas Industry Co's analysis of the Central Registry integrated with Allocation Mechanism option?	
Q8: Do you agree that the Central Registry option is the preferred switching option for the gas industry? What are your reasons?	
Part B	
Q9: To what extent do you agree with the high-level description of the Central Registry's services?	
Q10: Do you agree that all Premises on all current open access and non open access networks should be included on the Central Registry? What are your reasons?	
Q11: Do you agree with the analysis of user interests in the Central Registry data and processes?	
Q12: To what extent do you agree with the Central Registry general functionality described in this section?	
Q13: Do you agree with the proposed ICP parameters for the registry?	

QUESTION	COMMENT
Q14: To what extent do you agree with the proposed participant responsibilities, in particular the proposal that GMS parameters on the registry are maintained by meter owners?	
Q15: To what extent do you agree with the proposed switching information exchange process?	
Q16: To what extent do you agree with the proposed switch withdrawal process?	
Q17: To what extent do you agree with the proposed transfer read renegotiation process?	
Q18: Do you agree with the proposed gas registry acknowledgements and notifications process?	
Q19: Do you agree with the proposed registry reporting capability?	