

Information System Definition

July 2009

Summary:

This document identifies the systems that make up the Information System as approved by the Electricity Commission's Board.

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Version Control

Date	Version	Author	Comments and/or description of changes
11/10/2007	001	Laurie Counsell	
01/04/2008	002	Todd Collings	Updated based new reconciliation rules and new wholesale information and trading system establishment (formally know as COMIT).
13/10/2008	003	Rick Liew	Updated based on Market Administrator rule change.
17/07/09	004	Laurie Counsell	Incorporation of changes resulting from the System Operator's Market Services Project.

1 Executive Summary

This document details the information systems approved by the Board as the “information system” defined in Part A of the Electricity Governance Rules 2003 (Rules). These systems will be known collectively hereafter as the Information System.

In granting its approval, the Board has approved the use of these systems and not the actual systems themselves.

This document also describes the mechanisms used to transfer information through the Information System as required by the Rules. In addition to this document, each party responsible for the use of the Information System will also require its own internal procedures and processes to support the use of the systems described in this document. The procedures and processes that underpin these transfer mechanisms are the sole responsibility of the party liable for the provision of information, and are not discussed within this document.

1.1 Systems used within the Information System

The systems that have been identified as making up the Information System are listed below:

System	Description
WITS	The Wholesale Information and Trading System as defined by the Information System Service Provider Agreement
File Transfer Protocol (FTP)	The standard protocol used to transfer files electronically from one named location to another
Simple Mail Transfer Protocol (SMTP)	The standard protocol used to transfer emails
Transmission Control Protocol/Internet Protocol (TCP/IP)	The standard protocols used to enable one pc to communicate with another
http://www.electricityinfo.co.nz	The WITS Free to Air website provided by M-co for free public access
http://www.electricityreconciliation.co.nz	Energy Market Services Ltd website
www.electricitycommission.govt.nz	The Electricity Commission’s website
http://www.electricityregistry.co.nz	The Registry website
www.transpower.co.nz	Transpower New Zealand Limited’s website
Other relevant website addresses	Each generator and purchaser required to publish its own “relevant information” will use its own website address.
Voice	Any recognised voice communication system operating in real time.

1.2 Market Administrator

The Electricity Commission has appointed itself to the service provider role of Market Administrator. Where the Rules refer to the transmission or publication of information by the Market Administrator this document will refer to the Electricity Commission (Board).

1.3 Back up Procedures

M-Co, as the former Market Administrator service provider, in consultation with participants has prepared a document that describes the back-up procedures that apply if the information System is unavailable. This document has been made available to all participants.

2 Document Review Process

Reviews of this document may be instigated at any time by the Board. Such reviews may be triggered by:

- (a) information received from participants or any other source;
- (b) information arising from changes to components within the information system;
or
- (c) the rule change process.

For reviews triggered by (a) and (b) above the Board will notify participants of proposed changes to this document and advise the consultation process and timeframes that are to be followed.

Reviews to this document triggered by (c) above will be notified and consulted on via the corresponding rule change consultation.

Rule References

3 Part C

3.1 Section II: Rule 11

Rule Description

Board to publish draft policy statement

Process for transferring information

Once the draft Policy Statement is received from the System Operator the Board will publish the draft Policy Statement and all submissions on the statement on the following website: www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

3.2 Section II: Rule 13.2

Rule Description

Board to publish System Security Situation Report

Process for transferring information

Once the report is received from the System Operator the Board will publish the report on the following website: www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

3.3 Section II: Rule 14

Rule Description

Board to publish annual review and assessment of System Operator

Process for transferring information

Once the review is received from the System Operator the Board will publish the review on the following website: www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

3.4 Section II: Rule 15

Rule Description

Publication of the System Security Forecast to participants and the Board

Process for transferring information

The System Operator will:

- Publish the forecast to participants on the following website:
www.transpower.co.nz
- Send this information to the Board via SMTP over TCP/IP

System(s) used: www.transpower.co.nz, SMTP, TCP/IP

3.5 Section IV: Rule 5

Rule Description

Board to publish draft procurement plan

Process for transferring information

Once the draft Procurement Plan is received from the System Operator the Board will publish the plan and all submissions on the plan on the following website:
www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

3.6 Section IV: Rule 8

Rule Description

Board to publish departure from Procurement Plan report

Process for transferring information

Once the report is received from the System Operator the Board will publish the report on the following website: www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

3.7 Schedule C3, Technical Code A: Rule 2.5

Rule Description

Manner and form of the Asset Capability Statement published to participants

Process for transferring information

The System Operator will publish this statement on the following website:
www.transpower.co.nz

System(s) used: www.transpower.co.nz

3.8 Schedule C3, Technical Code D: Rule 6

Rule Description

Publication of asset outage programme to participants

Process for transferring information

The System Operator will publish this information on the following website:
www.transpower.co.nz

System(s) used: www.transpower.co.nz

3.9 Schedule C4, Rule 20.4

Rule Description

Publication of temporary security constraints

Process for transferring information

This information is to be published using WITS and www.electricityinfo.co.nz

The information provider will use reasonable endeavours to send email notification of changed temporary security constraints to participants

System(s) used: WITS, <http://www.electricityinfo.co.nz>, SMTP

4 Part D

4.1 Part D: Rule 2.3

Rule Description

Board to publish updates to the schedule when a new point of connection is added or it receives advice of an assignment of responsibility for provision of a metering installation

Process for transferring information

The Board will publish these schedule updates on the following website:
www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

5 Part E

5.1 Rule 23

Rule Description

Registry to publish the number of ICPs on the registry, the number of customers changing retailers, and any other information as agreed with the Board

Process for transferring information

This above information will be published on the following website:

www.electricityregistry.co.nz

5.2 Schedule E1: Rule 7.3

Rule Description

Registry to publish balancing area mapping

Process for transferring information

This above information will be published on the following website:

www.electricityregistry.co.nz

5.3 Schedule E1: Rule 8.3

Rule Description

Registry to publish the NSP identifiers and supporting information

Process for transferring information

This above information will be published on the following website:

www.electricityregistry.co.nz

System(s) used: <http://www.electricityregistry.co.nz>

5.4 Schedule E2: Rule 4.1

Rule Description

The Board to publish withdrawal advisory codes

Process for transferring information

The Board will publish the withdrawal advisory codes on the following website:

www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

5.5 Schedule E2: Rule 5.1 and 5.2

Rule Description

The Board to publish file formats for information exchange

Process for transferring information

The Board will publish the file formats used for information exchanges on the following website: www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

6 Part F

6.1 All relevant rules under part F that require information to be published by the Board

Rule Description

All relevant rules under part F that require information to be published by the Board

Process for transferring information

The Board will publish all information required to be published by it under part F on the following website:

www.electricitycommission.govt.nz

Where the size of such information makes web publication impractical, the Board will notify its availability on the same website, and make the information available using other more appropriate media

System(s) used: www.electricitycommission.govt.nz

6.2 Rule 9.1 of section VI of part F

Rule description

Transpower to provide and publish an annual report on interconnection asset capacity and grid configuration

Process for transferring information

Transpower will publish the information on the following website:

www.transpower.co.nz

Where the size of such information makes web publication impractical, Transpower will notify its availability on the same website, and make the information available using other more appropriate media

System(s) used: www.transpower.co.nz

6.3 Rule 10.8 of section VI of part F

Rule description

Transpower to report on availability and reliability of interconnection assets

Process for transferring information

Transpower will publish the information on the following website:

www.transpower.co.nz

Where the size of such information makes web publication impractical, Transpower will notify its availability on the same website, and make the information available using other more appropriate media

System(s) used: www.transpower.co.nz

7 Part G

7.1 Section I: Rule 2.3

Rule Description

Service Providers, grid owners, and generators, and purchasers will publish relevant information

Process for transferring information

Service Providers, grid owners, generators and purchasers are to publish relevant information on the respective company's websites

- System(s) used:**
- (i) Relevant website addresses for each generator and purchaser
 - (ii) For Service Providers:
 - www.transpower.co.nz (System Operator)
 - <http://www.electricityinfo.co.nz>
 - <http://www.electricityreconciliation.co.nz>
 - <http://www.electricityregistry.co.nz>
 - (iii) For Grid Owners:
 - www.transpower.co.nz

7.2 Section II: Rule 3.4, 3.2

Rule Description

Transmission of the following information to the System Operator by participants:

- Notification of intention to bid (3.4)
- Notification of intention to offer (3.2)

Process for transferring information

Participants will submit this information to the following email address:
marketservices@transpower.co.nz

System(s) used: SMTP

7.3 Section II: Rule 3.1, 3.3, 3.5-3.18

Rule Description

Transmission of the following information to the System Operator by participants:

- Submitted Bids and Revised Bids
- Submitted Offers and Revised Offers
- Embedded Offers and Revised Offers

Process for transferring information

Participants will submit all the above information using the WITS Upload facility

In the case of an intermittent generator submitting an offer under 3.14.3.1, an alternative process may be used only where the system operator has agreed such a process in writing.

System(s) used: WITS unless the exception above applies

7.4 Section II: Rule 3.5-3.18

Rule Description

Transmission of the following information to participants by the System Operator:

- Confirmation of receipt of submitted and revised Bids
- Confirmation of receipt of submitted and revised Offers

Process for transferring information

The System Operator will confirm receipt of bids and offers submitted by participants using WITS

System(s) used: WITS compliance@electricitycommission.govt.nz

7.5 Section II: Rule 3.19

Rule Description

Transmission of the following information to the Board by participants:

- Report of new, revised, cancelled bids or offers inside the two hour period
- Report of new, revised, cancelled embedded offers inside the 30 minute period

Process for transferring information

The Surveillance and Compliance team will send this information, on behalf of the participants, to the Board using the WITS email facility

System(s) used: WITS, SMTP

7.6 Section II: Rule 5

Rule Description

Transmission of the following information by the Grid Owner to the System Operator:

- Standing data on grid capability
- Standing data on HVDC capability
- Standing data on transformer capability
- Revised information submissions

Transmission of the following information by the System Operator to the Grid Owner:

- Confirmation of receipt of information pursuant to rule 5

Process for transferring information

- Standing Data is provided by Grid Owners to the System Operator via SMTP over TCP/IP or, where the Grid Owner is Transpower, via shared database access.
- Changes to standing data are communicated by voice communication from Grid Owners to the System Operator or, where the Grid Owner is Transpower, via database to database transfer over TCP/IP. Changes communicated by voice communication are followed up in writing electronically via SMTP over TCP/IP.
- The System Operator confirms receipt of the information by voice or electronically via SMTP over TCP/IP or, where the Grid Owner is Transpower, via shared database access..

System(s) used: SMTP, TCP/IP, FTP and voice

7.7 Section II: Rule 6

Rule Description

Transmission of the following information to the System Operator by ancillary service agents:

- Submitted, revised and cancelled reserve offers

Process for transferring information

Ancillary service agents will submit all information pursuant to rule 6 using the WITS upload facility

System(s) used: WITS

7.8 Section II: Rule 6.20

Rule Description

Transmission of the following information to ancillary service agents by the System Operator:

- Confirmation of submitted, revised and cancelled reserve offers

Process for transferring information

The System Operator will confirm receipt of any information submitted by ancillary service agents pursuant to rule 6 using the WITS upload facility

System(s) used: WITS

7.9 Section II: Rule 7.2

Rule Description

Transmission of final bids, final offers and final reserve offers to participants by the Board

Process for transferring information

Two weeks after the relevant trading date the Board will publish on COMIT WITS all final bids, final offers and final reserve offers for that trading date

System(s) used: WITS, www.electricityinfo.co.nz

7.10 Section III: Rule 3.6, 3.9

Rule Description

Transmission of the following information to the Clearing Manager by the System Operator:

- Election for a generator to be dispatched as a block dispatch group or to change from dispatch as a block
- Election for a generator to be dispatched as a station dispatch group or to change from dispatch as a station

Process for transferring information

This advice will be sent to the Clearing Manager using the WITS email facility

System(s) used: WITS, SMTP

7.11 Section III: Rule 3.7.1

Rule Description

Transmission of the Schedule of PDS Commencement Times to participants by the System Operator

Process for transferring information

The System Operator will provide this schedule to participants using the WITS email facility

System(s) used: WITS, SMTP

7.12 Section III: Rule 3.8

Rule Description

Transmission of the following information to the Pricing Manager and Clearing Manager by the System Operator:

- final trading period information

Process for transferring information

- Remote access over TCP/IP to final trading period information in the market database

System(s) used: TCP/IP

7.13 Section III: Rule 7

Rule Description

Publication of the following information to participants by the System Operator:

- Schedule of Real Time Prices
- Average real time prices
- Additional real time price information as listed in rule 7.2

Process for transferring information

Real time price information is transferred to WITS and a publicly accessible website by the System Operator

System(s) used: WITS, <http://www.electricityinfo.co.nz>

7.14 Section III: Rule 8.6.1

Rule Description

Board to publish System Operator report on Grid Emergency

Process for transferring information

Once received from the System Operator the Board will publish the report on the following website: www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

7.15 Section III: Rule 9.2

Rule Description

The Board will publish System Operator reports

Process for transferring information

System Operator reports will be published by the Board on the following website:
www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

7.16 Section III: Rule 10

Rule Description

Transmission of the following information to participants by the System Operator:

- Relevant sections of the Pre-dispatch schedule to each participant
- Forecast energy and reserve prices
- Expected aggregate supply curve
- Expected aggregate demand curve
- Disconnected nodes and infeasibility situations
- Scheduled maximum reserve risk
- Instantaneous reserve levels
- Reserve offer stacks
- Adjusted reserve offer stacks
- Indicative frequency keeping stations

Transmission of the following information to Generators and Purchasers by the System Operator:

- Schedule of dispatch prices
- Dispatch quantities
- Dispatch arc flows
- Dispatch group constraint arc flows
- Group constraint formulas
- Disconnected nodes and infeasibility situations

Process for transferring information

Once information is received from the System Operator, all information is published on WITS

System(s) used: WITS

7.17 Section IV: Rules 2 and 3

Rule Description

Transmission of the following information to the Clearing Manager by the Grid Owner:

- Historical load data

Transmission of the following information to participants by the Clearing Manager:

- Quantity of auction rights available
- Auction results

- Issue of auction invoices

Transmission of the following information to the Clearing Manager by Generators:

- Generator bids for auction rights

Process for transferring information

All information to be submitted pursuant to rules 2 and 3 will be submitted using the WITS email facility

System(s) used: WITS, SMTP

7.18 Section V: Rule 3.2

Rule Description

Transmission of the following information to the Pricing Manager and the Grid Owner by Generators and embedded generators:

- Adjusted embedded half hour information for Participants
- Half-hour metering information
- Notice of provision

Process for transferring information

This information is communicated by Generators to the Grid Owners and the Pricing Manager using FTP

System(s) used: FTP

7.19 Section V: Rule 3.3, 3.16, 3.19, 3.26

Rule Description

Transmission of the following information to the Pricing Manager by the Grid Owner or generators:

- Existing generation configuration
- GIP/GXP actual demand over the trading period
- Revised data (after a provisional price situation)
- Revised half-hour metering information following an initial estimate

Process for transferring information

- The Pricing Manager is provided with remote access over TCP/IP to existing generation configuration information and GIP/GXP actual demand information in the market database.
- Transfer of GIP/GXP actual demand information is provided using FTP to the table address "PMDB:MktActualLoad"

Access

The Pricing Manager can access the information directly either from its own or from Transpower's premises

System(s) used: TCP/IP, FTP

7.19A Section V: Rule 3.3.2

Rule Description

Pricing manager to publish daily half-hour metering data

Process for transferring information

This information is to be published using WITS and www.electricityinfo.co.nz.

System(s) used: WITS, <http://www.electricityinfo.co.nz>

7.20 Section V: Rules: 3.4, 3.11, 3.12.2, 3.14, 3.15, 3.18, 3.21, 3.22, 3.23

Rule Description

Publication of the following prices by the Pricing Manager:

- Final and final reserve prices
- Provisional prices

Process for transferring information

All information transferred in accordance with above rules is published on WITS. The Pricing Manager initiates this transfer

System(s) used: WITS

7.21 Section V: Rule 3.5, 3.7, 3.9, 3.11, 3.16, 3.17, 3.18, 3.20, 3.21B, 3.23, 3.24, 3.33

Rule Description

Transmission of the following information to Pricing Manager and participants by the Grid Owner, System Operator or Generators:

- Notification of provision of information and whether a SCADA situation exists
- Notification of estimated or revised information and specification of the revisions made
- Notification by the Grid Owner or the System Operator to the Board of reason for unresolved provisional price
- Notification by the Pricing Manager to participants and the Board of a provisional price situation
- Notification to the Pricing Manager from the System Operator of Model Variables
- Notification by the System Operator to the Pricing Manager and participants that the high spring washer price situation relaxation factor has been applied

- Notification by the System Operator to the Pricing Manager and participants whether an infeasibility situation has been resolved

Process for transferring information

All notifications are to be sent using the WITS email facility

System(s) used: WITS, SMTP

7.22 Section V: Rules 3.6, 3.18.3, 3.18.4, 3.21, 3.24

Rule Description

Notifications to the Grid Owner and participants from the Pricing Manager:

- Notification of an infeasibility situation, metering situation or high spring washer pricing price situation
- Notification if a provisional price situation is not resolved

Process for transferring information

All notifications are to be sent using the WITS email facility

System(s) used: WITS, SMTP

7.22A Section V: Rules 3.8, 3.16, 3.19, 3.21B

Rule Description

System Operator to provide revised data to the Pricing Manager after an infeasibility situation or a high spring washer price situation

Process for transferring information

The Pricing manager is provided with remote access over TCP/IP to revised data in the market database.

System(s) used: TCP/IP

7.23 Section V: Rule 3.32

Rule Description

Publication of annual consumption list to participants by Board

Process for transferring information

The list is published by the Board on the Commission's website

System(s) used: www.electricitycommission.govt.nz

7.24 Section V: Rule 4.5

Rule Description

Publication of the following information to System Operator by the Clearing Manager:

- Constrained Off Amounts
- Constrained On Amounts

Process for transferring information

Constrained on and off information is sent to the System Operator by the Clearing Manager using FTP

System(s) used: FTP, TCP/IP

7.25 Section V: Rule 4.6, 5.7

Rule Description

Publication of the following information to participants by the Clearing Manager:

- Constrained Off Amounts
- Constrained On Amounts

Process for transferring information

Constrained on and off information will be published on WITS

System(s) used: WITS

7.26 Section V: Rule 7.2

Rule Description

Publication of the Pricing Manager report by the Board

Process for transferring information

The report is to be published by the Board on the following website:
www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

8 Part H

8.1 Part H: Rule 7.1, 7.3, 7.7-7.9, 8.1, 11.1

Rule Description

Issue of invoices by the Clearing Manager

Process for transferring information

The transmission of the following information from the Clearing Manager using the WITS email facility:

- Invoices to purchasers of electricity
- Invoices to payers for ancillary services
- Re-issued invoices
- Pro-forma invoices
- Washups

The transmission of the following information from payees and payers to the Clearing Manager using the WITS email facility:

- Confirmation of receipt

System(s) used: WITS, SMTP

8.2 Part H: Rule 13.2

Rule Description

Publication of Clearing Manager reports

Process for transferring information

Clearing manager reports are to be published by the Board on the following website:
www.electricitycommission.govt.nz

System(s) used: www.electricitycommission.govt.nz

8.3 Part H: Rule 13.5

Rule Description

Clearing Manager to publish block dispatch settlement differences

Process for transferring information

Block dispatch settlement differences are to be published to participants by the Clearing Manager on WITS

System(s) used: WITS

9 Part J

9.1 All relevant rules under part J that require information to be published or conveyed to or from the reconciliation manager system or by the Board

Rule Description

All relevant rules under part J that require information to be published by the reconciliation manager service provider

All relevant rules under part J that require information to be published by the Board

Process for publishing information

The reconciliation manager will publish all information required to be published by it under part J on the following website:

www.electricityreconciliation.co.nz

The Board will publish all information required to be published by it under part J on the following website:

www.electricitycommission.govt.nz