# Market Operations

# Monthly Service Provider Report

## February 2010

This report details monthly information in relation to the wholesale information & trading system, clearing manager and pricing manager functions performed by NZX under contract to the Electricity Commission.

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# Introduction

## 1.1 Purpose

This report details monthly information in relation to the wholesale information & trading system, clearing manager and pricing manager functions performed by NZX under contract to the Electricity Commission.

This report has been prepared in accordance with sections 44 and 45 of the Electricity Governance Regulations 2003 and contains the core reporting requirements plus additional market information that will be of interest to the Board.

## 1.2 Contact Details

The following is a list of contact details for further information or questions pertaining to this report:

**WITS Market Information System**
David Godfrey, Information Technology Manager +64 4 498 0048

**Service Operations**
Ashley Milkop, Energy Services Manager +64 4 498 0028

# 2. Core Reporting

## 2.1 Compliance with Regulations and Rules

To the best of our knowledge all NZX service providers complied with their obligations under the regulations and rules during the reporting month.

## 2.2 Operation of the Regulations and Rules

The NZX service providers have not during the reporting month identified any areas where, in their view, a change to the regulations or rules may need to be considered.

## 2.3 Compliance with Service Provider Agreements

To the best of our knowledge, all provisions of the service provider agreement have been adhered to during the reporting month.

## 2.4 Compliance with Agreed Performance Standards

### 2.4.1 Wholesale Information & Trading System Manager (WITS/COMIT)

WITS processing times have increased because of receiving a marked increase in data post implementation of MSP in 21st July. Optimisation work is underway.

| Measure | Achieved This Month | Standard |
|---|---|---|
| WITS/COMIT availability | 100% | 99.72% |
| WITS/COMIT Electricity Info Module availability | 100% | 90% |
| WITS/COMIT Risk Contract Mgmt Module availability | 100% | 90% |
| WITS/COMIT 6-month availability | 99.98% | 99.72% |
| WITS/COMIT file upload availability | 100% | 99.72% |
| Average time to publish PDS | 5min 59secs | 7mins |
| Average time to publish dispatch prices | 1min 1sec | 1min |
| Average time to publish provisional/final prices | 54secs | 1min 30secs |

*The target level of 99.72% relates to the equivalent of no more than two hours of outages per calendar month. Core functionality denotes all the systems and facilities necessary to fulfil the wholesale information system requirements of the EGRs as part of the Wholesale Information & Trading System service provider agreement.*

### 2.4.2 Clearing Manager

| Measure | Achieved This Month | Standard |
|---|---|---|
| Wash-up notifications distributed to parties by 5th business day of each month | Yes | 92% |
| Invoices released by 6pm on 9th business day | Yes | 92% |
| Constrained on/off amounts released to System Operator by 9am on 8th business day | Yes | 92% |
| Amounts payable to payees sent through to the bank by 5:30pm on settlement day | Yes | 92% |
| Number of invoice calculation errors | 0 | 0 |
| Number of security level calculation errors | 0 | 0 |

*The target level of 92% relates to the equivalent of no more than one instance of missing the deadline within a twelve-month period. The zero standards indicate that the Board expects there to be no calculation errors, in either invoices or the establishment of security levels.*

### 2.4.3 Pricing Manager

There were several issues with publication of prices this month associated with MSP.

On 9 February, a set of provisional prices that was sent from the MOI failed to publish until 11:56 - an issue related to delays in publishing schedules. In the meantime, the pricing manager sent out provisional prices manually at 11:54. This was a breach of the service provider standard that required publication before 10:22 for provisional prices on a first solve.

On 10 February, prices were unable to be published because, when the pricing analyst was setting up the solve, he clicked on the save button earlier in the process than is usual. This initiated a known bug in MSP meaning that the case could not be published. Pricing analysts have been advised to show particular caution around this. The manifestation of the bug in this way had not been documented and it was impossible to anticipate. This issue will be fixed at some point down the line with regular updates to MSP. Prices were published using the backup procedure by 10:18, which was within the service provider standard.

On 13 February, because of a System Operator issue prices could not be published through MSP. These prices were published through the backup system, by email at 09:44am, outside the service provider standard. They were published on WITS at 16:12 on 14 February.

| Measure | Achieved This Month | Standard |
|---|---|---|
| Final prices published by 9:22am if no provisional price situation exists | 97%[1] | 97% |
| Provisional prices published by 10:22am if provisional price situation exists | 94%[2] | 97% |
| Final prices published within 2 hours 30 minutes of a System Operator/Grid Owner fix to a provisional price situation | 100% | 97% |
| IT processing time to publish final prices within 3 minutes 15 | 100% | 97% |

[1] Due to prices of 13 February delayed because of System Operator Issue

[2] Two instances: one was 9 February as mentioned above; the other was missed by six minutes because of additional checking

| | | |
|---|---|---|
| seconds of sending | | |
| Number of price processing errors | 0% | 0% |

*The target level of 97% relates to the equivalent of no more than one instance of missing a listed deadline within a calendar month. The zero percent standard indicates that the Board expects there to be no errors caused by the pricing manager in the calculation of prices.*

# 3. Additional Information

## 3.1 IT Systems

### 3.1.1 Outage Summary

There was one Emergency Transpower outage on 3rd February 2010 for an urgent switchover, due faulty hardware in Hamilton. During this time all orders were held in WITS.

### 3.1.2 Rule Change Implementations

No rule change implementations were carried out during the month.

### 3.1.3 Minor System Changes

WITS – Historic view of orders up to 45 days. This completed the current enhancement programme.

During the month, a number of minor maintenance changes were made to CHASM.

### 3.1.4 Other Work

Work is being carried out on WITS rebranding, six monthly DR testing, variable reserves and daylight savings changes.

## 3.2 Clearing Manager

### 3.2.1 Invoicing and Settlement

Monthly settlement (January 2010 billing period settled on February 22):

**Amounts Received**

| | |
|---|---|
| Received from Payers | $176,610,511 |

**Amounts Paid**

| | |
|---|---|
| Paid to Payees | $186,489,159 |
| Loss and Constraint Excess | $9,878,607 |

Total settlement (1 April 04 to 28 February 2010):

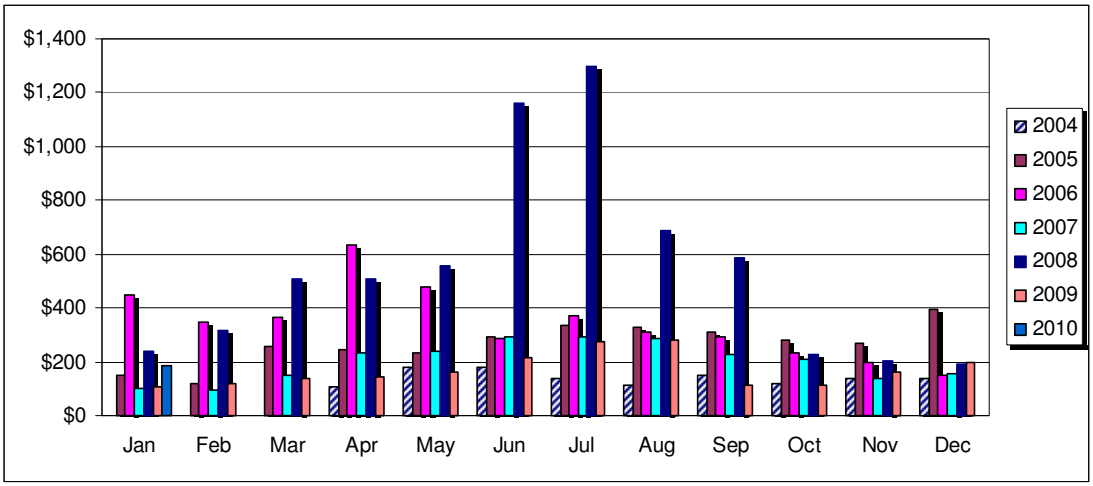
**Amounts Received**

| | |
|---|---|
| Received from Payers | $20,037,453,236 |

**Amounts Paid**

| | |
|---|---|
| Paid to Payees | $19,437,735,872 |
| Loss and Constraint Excess | $599,669,653 |

Graphically, total settlement since April 2004 is as follows:




### 3.2.2 Security Monitoring

At the end of February 2009 the clearing manager held security of $204,976,533 with the total payers' projected exposure to 29 March 2010 estimated at $165,691,771.

There were 3 calls for security and 0 reductions in security in February.

### 3.2.3 Ancillary Services

Payments to Ancillary Services Agents in February 2010 for the January 2010 billing period totalled $8,991,851. That amount was made up of the following:

| Type | Amount (GST incl.) |
|---|---|
| Black Start | $46,991 |
| Over-frequency Reserve | $64,125 |
| Frequency Keeping | $3,399,803 |
| Instantaneous Reserve | $4,718,754 |
| Voltage Support | $762,177 |

Further details and historical and graphical information regarding ancillary service can be found in the system operator monthly service provider report at: http://www.electricitycommission.govt.nz/opdev/servprovinfo/somonthly

### 3.2.4 Constrained on

Total constrained on for the January 2010 billing period was $955,588. These amounts were paid to generators by the clearing manager and the system operator on the January 2010 invoices issued in February 2010.

### 3.2.5 Constrained off

Total constrained off amounts for the January 2010 billing period were $713,094. Only constrained off amounts that are attributable to the system operator are paid to generators.

### 3.2.6 Must Run Dispatch Auction

There were standing bids into the must run dispatch auction every day in February and two alterations of bids. The auction fully cleared on all days at a clearing price of $0.01 for both day and night.

## 3.3 Pricing Manager

### 3.3.1 Daily Pricing Statistics

For February 2010, the pricing manager performed 42 pricing solves.

Pricing Situations that occurred in February were:

| Infeasibility Situations | Metering Situations | High Spring Washer Price Situations |
|---|---|---|
| 15 | 8 | 1 |

Publication time for Final prices in February:

| Publication category | Number of cases |
|---|---|
| 1st solve published same day before 9:22 | 11 |
| 2nd solve published same day before 12:00 | 11 |
| 2nd solve published same day before 17:00 | 4 |
| 2nd solve published 1st business day following weekend provisional | 2 |
| 2nd solve delayed more | n/a |

| | |
|---|---|
| than one business day | |
| 3rd solve published same day before 12:00 | n/a |
| 3rd solve published same day before 17:00 | n/a |

### 3.3.2 Price Commentary

With low inflows relative to average and the prolonged outage of Otahuhu B (returned to service 8 March), prices headed up in February by 11% at Haywards and 20% at Otahuhu. Because of the fire under the HVDC line on 18 February there was significant price separation between the north and south on that day, which contributed to much of the increased price separation throughout the month compared to January.

The event of 18 February saw the reserve market suspended in the North Island between 12:00 and 15:00.

Change in monthly average Final prices at reference nodes ($/MWh):

| | **Feb-10** | **Jan-10** | **Change** |
|---|---|---|---|
| BEN2201 | 71.59 | 66.54 | 8% |
| HAY2201 | 78.03 | 70.57 | 11% |
| OTA2201 | 84.95 | 70.82 | 20% |

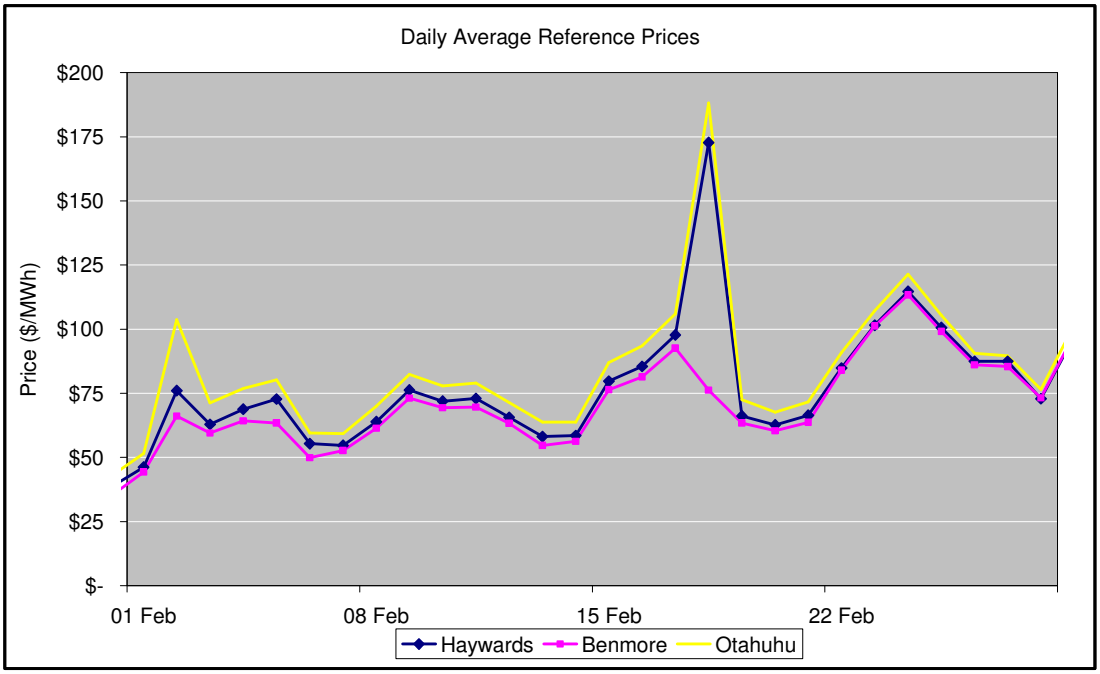
Total hydro storage at the end of February was 96% of the long-term average for that time of year (as compared to 115% at the beginning of the month) and 71% of maximum storage (as compared to 84%). The decline came about because of low inflows – only 67% of average for this time of year.

### 3.3.3 Monthly Average Reference Price Summary

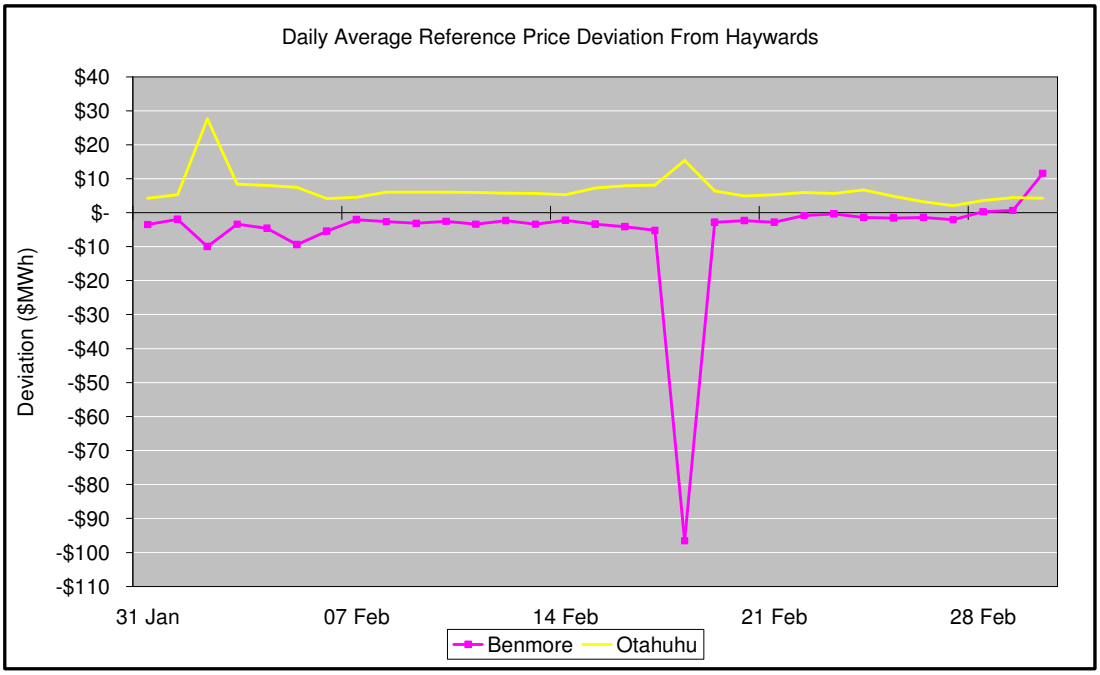
| *Monthly Summary* | *February-10* | | |
|---|---|---|---|
| **Haywards (HAY2201)** | **Forecast** | **Dispatch** | **Final** |
| Average Price: | $ 75.87 | $ 131.81 | $ 78.03 |
| Highest Price: | $ 1,045.56 | $ 73,807.65 | $ 1,056.04 |
| Lowest Price: | $ 5.30 | $ 3.86 | $ 2.18 |
| Half Hours > $100: | 136 | 127 | 149 |
| Average Weekday (excl stats): | $ 77.28 | $ 159.27 | $ 83.43 |
| Average Weekend (incl stats): | $ 52.61 | $ 45.94 | $ 46.92 |
| **Benmore (BEN2201)** | **Forecast** | **Dispatch** | **Final** |
| Average Price: | $ 71.00 | $ 69.35 | $ 71.59 |
| Highest Price: | $ 176.17 | $ 165.33 | $ 165.32 |
| Lowest Price: | $ 24.02 | $ 9.01 | $ 8.49 |
| Half Hours > $100: | 113 | 105 | 117 |
| Average Weekday (excl stats): | $ 72.44 | $ 72.79 | $ 75.41 |
| Average Weekend (incl stats): | $ 49.04 | $ 44.19 | $ 45.11 |
| **Otahuhu (OTA2201)** | | **Dispatch** | **Final** |
| Average Price: | | $ 150.76 | $ 84.95 |
| Highest Price: | | $ 89,589.30 | $ 1,247.45 |
| Lowest Price: | | $ 3.85 | $ 2.21 |
| Half Hours > $100: | | 206 | 227 |
| Average Weekday (excl stats): | | $ 184.06 | $ 91.35 |
| Average Weekend (incl stats): | | $ 49.09 | $ 50.15 |

Note: Forecast prices for Otahuhu are not published

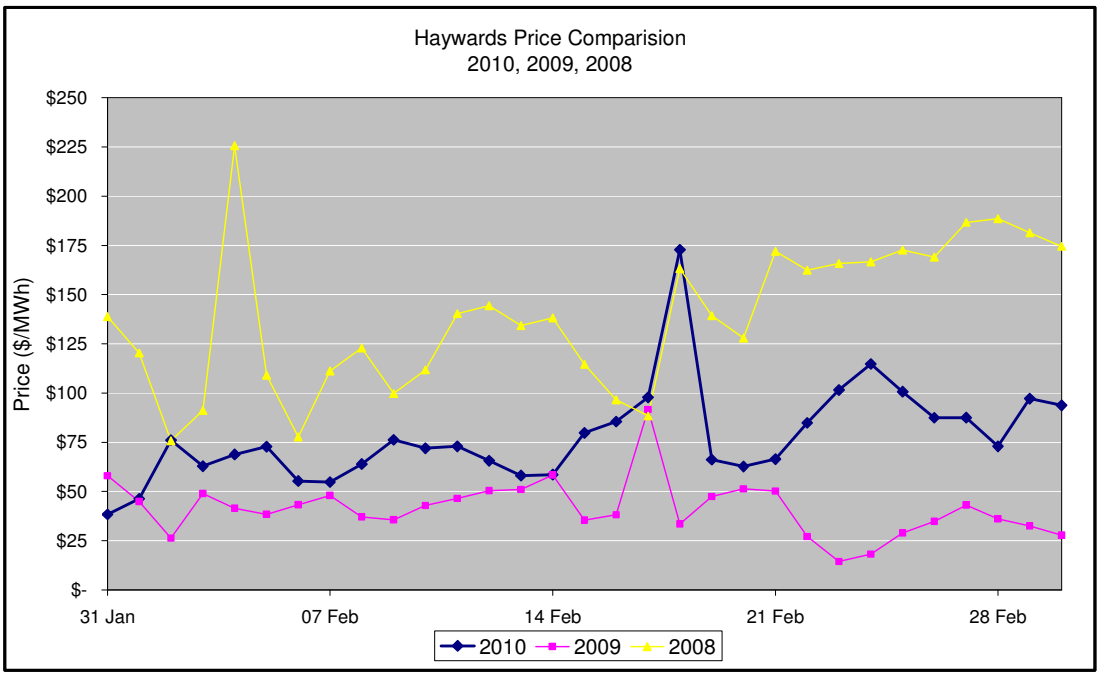
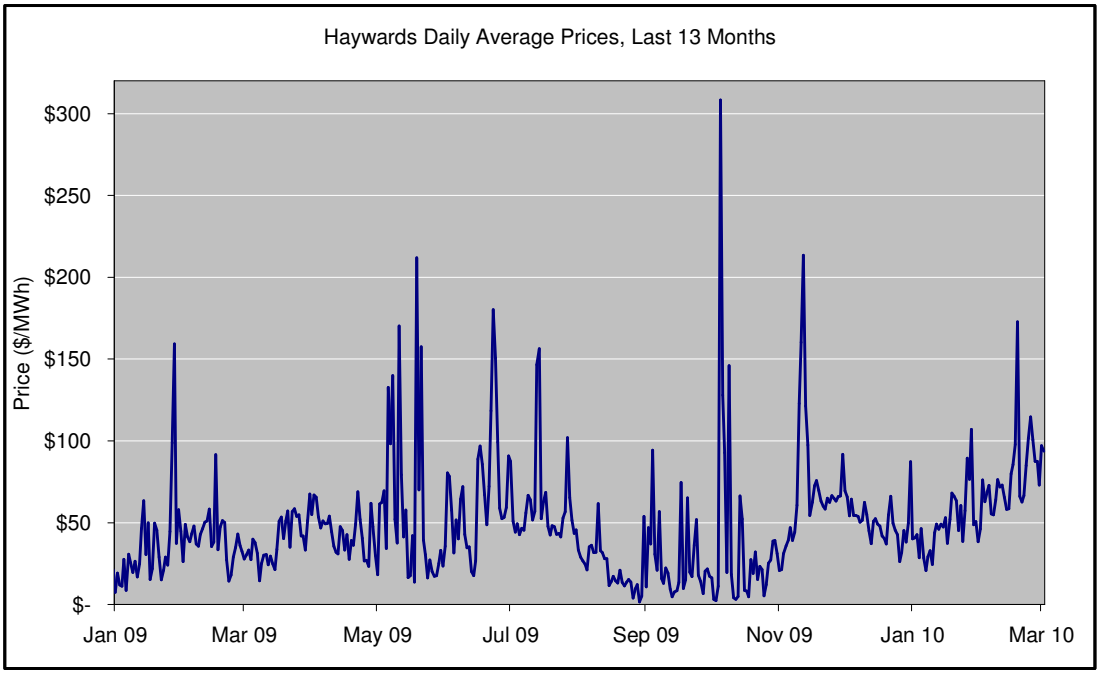
### 3.3.4 Daily Average Reference Price Graph



### 3.3.5 Daily Average Reference Price Deviation from Haywards




### 3.3.6 Daily Average Haywards Price Comparison



### 3.3.7 Haywards 13 Month Daily Average Price Comparison