Market Operations

Monthly Service Provider Report

This report details monthly information in relation to the Wholesale Information & Trading System (WITS), clearing manager, pricing manager and reconciliation manager functions performed by NZX under contract to the Electricity Authority (Authority).

July 2021

Created: 03 August 2021

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1. Introduction

1.1 Purpose

This report details monthly information in relation to the Wholesale Information & Trading System (WITS), clearing manager, pricing manager and reconciliation manager and performed by NZX under contract to the Electricity Authority (Authority).

This report contains core reporting requirements in compliance with Clauses 3.13 and 3.14 of the Electricity Participation Code 2010 and relevant Market Operator Service Provider (MOSP) agreements.

1.2 Contact Details

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

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>Head of Energy IT

Service Operations
>**Tim Chadwick**   **+64 4 471 4394**
>Head of Energy Operations

2.   Compliance

2.1   Compliance with Regulations and Code

For this month, to the best of our knowledge, the clearing manager, reconciliation manager, WITS and pricing manager, service providers fully complied with the Code and regulations.

2.2   Operation of the Regulations and Code

For this month, the NZX service providers have not identified any areas of the Code that require addressing.

2.3   Compliance with MOSP Agreements

All provisions of the, clearing manager, reconciliation manager, and pricing manager MOSP agreements have been adhered to during the reporting month.

3.   Service Level Reporting

3.1   WITS service levels against target

Measure	Target	Achieved this month
WITS availability	>99.72%	99.99%
WITS file upload availability	>99.72%	99.99%
Average time to publish NRSS & PRSS	<1 minute	25 sec
Average time to publish NRSL & PRSL	<7 minutes	91.5 sec
Average time to publish provisional/interim/final prices	<1.5 minutes	4.5 sec

3.2   Clearing manager service levels

3.2.1   Clearing manager service levels against targets

Measure	Target	Achieved this month
No. of wash-up notifications published later than the 5th business day of the month	Zero	0 late publications
No. of hedge settlement agreement amounts published later than the 5th business day of the month	Zero	0 late publications
No. of constrained amounts sent to system operator later than 09:00 hrs on 8th business day of the month	Zero	0 late notifications
Availability achieved during the month	> 99.5%	100%

3.2.2   Clearing manager service level reporting

Measure	Metric	Achieved this month
Number of publication targets missed	No.	0
Number of invoice revisions during the month	No.	0
Date of issue of last invoice during the month	Date	12/07/2021
Number of unplanned outages during the month	No.	0
Number of planned outages during the month	No.	0
Availability achieved during the month	% attained	100%
Number of prudential defaults during the month	No.	1
Scaling applied to generator payments	% attained	0%
Number of data files provided to the Authority	No.	28 constrained amount files; 22 daily prudential summaries.

3.3   Pricing manager service levels

3.3.1   Pricing manager service levels against targets

Measure	Target	Achieved this month
Interim prices published by 09:20 hrs, provided there is no provisional price situation, and the input information has been received by 07:30 hrs	No more than one late publication in a rolling three month period	0 late publications
On a weekday, provisional prices published before 10:20 hrs, provided the input information has been received by 07:30 hrs	No more than one late publication in a rolling three month period	0 late publications

On a weekend day, provisional prices published before 09:20 hrs, provided the input information has been received by 07:30 hrs	No more than one late publication in a rolling three month period	0 late publication
A price that has been published as provisional will be republished as interim on the same day that a revised data notice is received, provided that a notice is received before 03:00 hrs	No more than one late publication in a rolling three month period	0 late publications
No. of price processing errors in a calendar month	Zero	0 processing errors.
A pricing error claim must be processed within 1 business day of being received, and if further information is required, must be processed within 1 business day of that further information being received	PEC's held for longer than 1 BD.	0
Months since last disaster recovery test for standalone Scheduling, Pricing and Dispatch (SPD)	No more than six months	4 month (DR test 16 March 2021).
Months since last test of back-up pricing at Transpower	No more than six months	3 month
No. of unplanned system outages	Zero	0 unplanned system outage
Planned outages coordinated with the system operator	Yes (in the event of an unplanned outage)	Yes
No. breaches of the incident response levels contained in Section 6 of this report	Zero	0
Pricing case files and pricing case file status sent to the Authority on time (as specified in 9.2 of the MOSP agreement)	Yes	Yes

3.3.2   Pricing manager service level reporting

Measure	Metric	Achieved this month
Number of interim or final prices published late in current reporting month	No.	0
Number of interim or final prices published late in last twelve months	No.	0
Number of price error claims received	No.	0
Disaster recovery and backup obligations	Achieved	Achieved
Total outages: - Planned	No. planned	0
- Planned without system operator coordination	No. planned without system operator coordination	0
- Unplanned	No. unplanned	0
Number of data files provided to the Authority late	No.	0

3.4   Reconciliation manager service performance

3.4.1   Reconciliation manager service levels against targets

Measure	Target	Achieved this month
Availability between business days 1 and 4, and 9 and 13	99.8%	100%
Availability for other times of the month	99.5%	99.99%

* See section 2.3

3.4.2 Reconciliation manager service level reporting

Measure	Metric	Achieved this month
Number of days late for publication of reconciliation information	0 Days	0 days
System availability between business days 4, 7, 9 and 13 for the month	% attained	100%
System availability outside business days 4, 7, 9 and 13 for the month	% attained	99.99%
Number of volumes disputes resolved in the month	No.	0
Number of requests to re-run reconciliation as a result of an invoice dispute	No.	0 request
Setup of approved profiles within 1 business day of receiving a notification from the Authority	% attained	100% (none)
Total outages: - Planned	No.	0 hours
- Unplanned	No.	0 hours

4. Systems Update

4.1 Functional specification status

System	Latest revision	Approved by the Authority**
WITS	7.0	🟢
Clearing manager	25.0	🟢
Pricing manager	6.0	🟢
Reconciliation manager	12.0	🟢

**For this table, and for the remaining tables in this report, 🟢 indicates yes and 🔴 indicates no.

4.2 Backup requirements

System	Daily data backup requirement meet[1]	Weekly data backup requirement meet[2]	Reason for requirement not being met
WITS	🟢	🟢	N/A
Clearing manager	🟢	🟢	N/A
Pricing manager	🟢	🟢	N/A
Reconciliation manager	🟢	🟢	N/A

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[1] Backup copies of all data and processed data must be taken at least daily and stored in a secure offsite location. Likewise, copies of the latest version of the software must also be kept offsite.

[2] At least weekly, a backup copy of the data, processed data and software must be delivered and stored at an offsite location at least 100km from the premises used to provide the regular services.

4.3 Disaster recovery and BCP testing

Date	Service	Application/Scope	Status
17 April – 22 May 2018	Reconciliation Manager	Disaster Recovery	Complete
17 April – 22 May 2018	Clearing Manager	Disaster Recovery	Complete
17 April – 22 May 2018	Pricing Manager	Disaster Recovery	Complete
17 April – 22 May 2018	WITS	Disaster Recovery	Complete
13 Nov – 27 Nov 2018	Reconciliation manager	Disaster Recovery	Complete
13 Nov – 27 Nov 2018	Clearing manager	Disaster Recovery	Complete
13 Nov – 27 Nov 2018	Pricing Manager	Disaster Recovery	Complete
13 Nov – 27 Nov 2018	WITS	Disaster Recovery	Complete
16 Apr – 30 Apr 2019	Reconciliation manager	Disaster Recovery	Complete
16 Apr – 30 Apr 2019	Clearing manager	Disaster Recovery	Complete
16 Apr – 30 Apr 2019	Pricing Manager	Disaster Recovery	Complete
16 Apr – 30 Apr 2019	WITS	Disaster Recovery	Complete
4 Nov – 15 Nov 2019	Reconciliation manager	MOSP combined DR	Complete
4 Nov – 15 Nov 2019	Clearing manager	MOSP combined DR	Complete
4 Nov – 15 Nov 2019	Pricing Manager	MOSP combined DR	Complete
4 Nov – 15 Nov 2019	WITS	MOSP combined DR	Complete
1st Half 2020	ALL	Disaster Recovery	Waived
16 Jul – 18 Aug	ALL	Disaster Recovery	Complete
16 Jul – 28 Oct 2020	ALL	Disaster Recovery	Complete
16 March – 29th April	Clearing Manager	Disaster Recovery	Complete
16 March – 29th April	Pricing Manager	Disaster Recovery	Complete
16 March – 29th April	WITS	Disaster Recovery	Complete
16 March – 4th May	Reconciliation Manager	Disaster Recovery	Complete

4.4 Developer access to production systems

This is a separately reported metric

5. Incidents

5.1   WITS incident - fault response and resolution times

Priority	Measure	Standard	Achieved this month	Incident Ref #
1	Respond within 15 minutes of receipt of a support request	100%	100%	0
	Work around or resolve within 6 hours	100%	100%	0
	Work around resolved within 20 business days	100%	100%	0
2	Respond within 2 hours of receipt of a support request	100%	100%	0
	Work around or emergency fix within 1 business day	100%	100%	0
	Resolve within 20 business days	100%	100%	0
3	Respond within 1 business day	100%	100%	0
	Resolve within 40 business days	100%	100%	0
4	Acknowledgment of downgrade of severity to level 4 within 1 business day of downgrade	100%	100%	0
	Resolve at the next convenient opportunity as agreed with the Authority	100%	100%	0

5.2   Clearing manager incident – fault response and resolution times

Priority	Measure	Standard	Achieved this month	Incident Ref #
1	Respond within 15 minutes of receipt of a support request, received between 07:30 hrs to 19:30 hrs on a business day	100%	100%	0
	Work around or resolve within 6 hours	100%	100%	0
	Work around resolved within 20 business days	100%	100%	0
2	Respond within 2 hours of receipt of a support request, received between 07:30 hrs to 19:30 hrs on a business day	100%	100%	72549
	Work around or emergency fix within 1 business day	100%	100%	72549
	Resolve within 20 business days	100%	100%	72549
3	Respond within 1 business day	100%	100%	73018 72857 72718 72570 72400 72395 72353 72444
	Resolve within 40 business days	100%	100%	73018 72857 72718 72570 72400 72395 72353
4	Acknowledgment of downgrade of severity to level 4 within 1 business day of downgrade	100%	100%	0
	Resolve at the next convenient opportunity as agreed with the Authority	100%	100%	0

5.3 Pricing incident - Fault response and resolution times

Priority	Measure	Standard	Achieved this month	Incident Ref #
1	Respond within 15 minutes of receipt of a support request	100%	100%	0
	Work around or resolve within 6 hours	100%	100%	0
	Work around resolved within 20 business days	100%	100%	0
2	Respond within 2 hours of receipt of a support request	100%	100%	0
	Work around or emergency fix within 1 business day	100%	100%	0
	Resolve within 20 business days	100%	100%	0
3	Respond within 1 business day	100%	50%	72838 72442
	Resolve within 40 business days	100%	50%	72838 72442
4	Acknowledgment of downgrade of severity to level 4 within 1 business day of downgrade	100%	100%	0
	Resolve at the next convenient opportunity as agreed with the Authority	100%	100%	0

5.4 Reconciliation manager incident – Fault response and resolution times

Priority	Measure	Standard	Achieved this month	Incident Ref #
1	Respond within 15 minutes of receipt of a support request, received between 07:30 hrs to 19:30 hrs on a business day	100%	100%	0
	Work around or resolve within 6 hours	100%	100%	0
	Work around resolved within 20 business days	100%	100%	0
2	Respond within 2 hours of receipt of a support request, received between 07:30 hrs to 19.30 hrs on a business day	100%	100%	72912
	Work around or emergency fix within 1 business day	100%	100%	72912
	Resolve within 20 business days	100%	100%	72912
3	Respond within 1 business day	100%	100%	73220
	Resolve within 40 business days	100%	100%	73220
4	Acknowledgment of downgrade of severity to level 4 within 1 business day of downgrade	100%	100%	73027
	Resolve at the next convenient opportunity as agreed with the Authority	100%	100%	73027

6. Stakeholders

6.1 User group meetings

Role	Date	Status
Reconciliation manger and clearing manager	10 August 2016 (Wellington)	Complete
WITS and pricing manager	12 October 2016 (Wellington)	Complete
All roles	23 May 2017 (Auckland)	Complete
All roles	23 November 2017 (Wellington)	Complete
WITS	27 June 2018 (Auckland)	Complete
Combined	8 November 2018 (Wellington)	Complete
Clearing	November 2019 (Wellington)	Complete
WITS	December 8 2020 (Remote)	Complete

6.2 Stakeholder meetings

Date	Participant	Status
07 July 2021	Trustpower Limited	Complete
07 July 2021	Nova Energy Limited	Complete
12 July 2021	Transpower New Zealand Limited	Complete
21 July 2021	Telnet NZ Limited	Complete
28 July 2021	Mercury NZ Limited	Complete

# 7. Clearing and Settlement Market Summary

Settlement Data

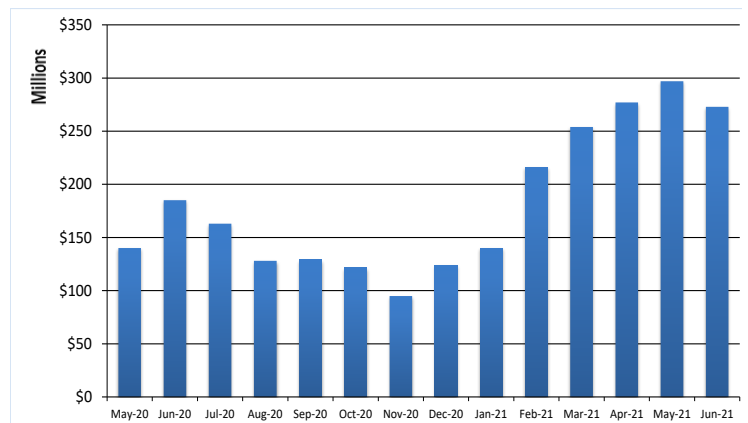|	Amount
Settlement month	June 2021
Settlement date	20 July 2021
Amounts owed from payers	$1,198,828,223.66
Amounts owed to payees	$1,208,495,001.08
Loss and constraint excess	$21,917,450.22
Payer volumes	3,726,740.793 MWh
Payee volumes	3,620,595.951 MWh

Prudential Data

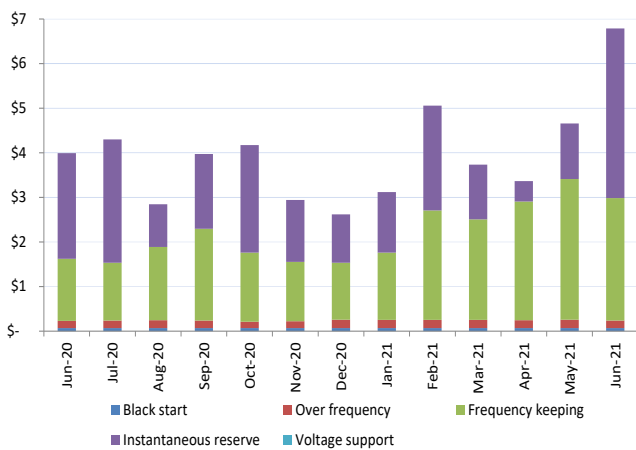|	Amount
As at date	30 July 2021
Total security held	$560,029,497.66
Total assessed exposure	$309,777,916.09
No. of security increases	75
No. of security reductions	4
Settlements made from prudential	16

2021 Payer Amounts Owed Relative to Previous
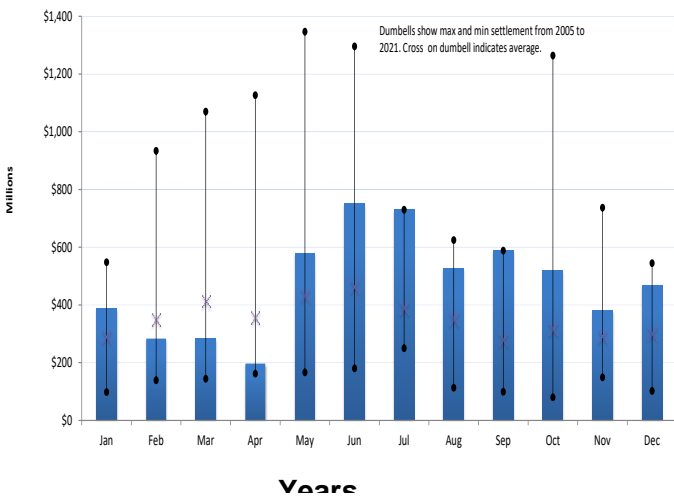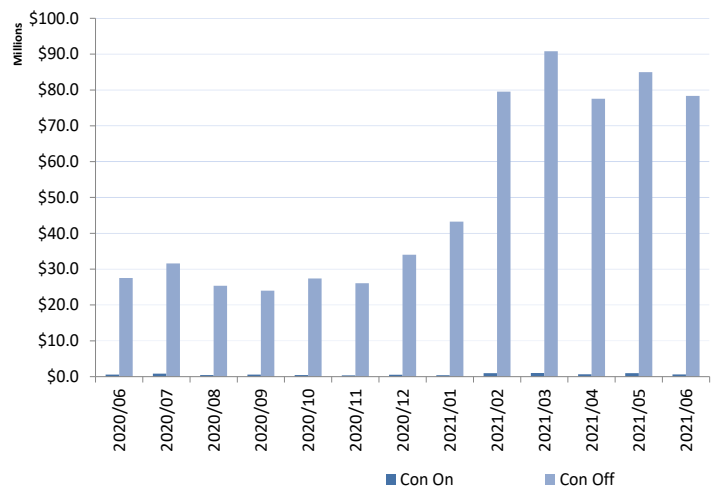

2020 - 2021 Amounts Payable since Net Settlement Introduced
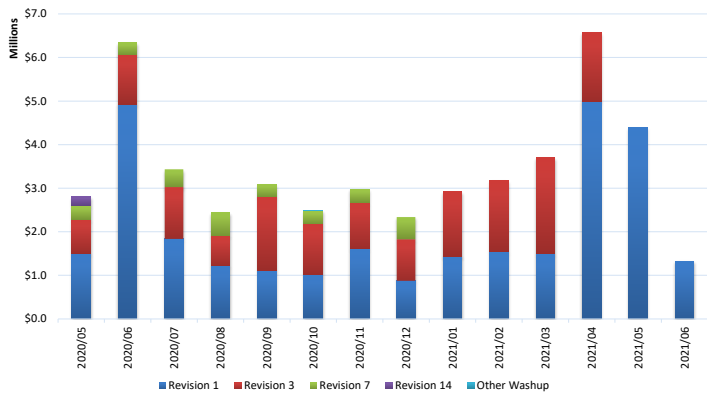

13 Month Rolling Total Ancillary Service Amounts

13 Month Rolling Total Constrained Amounts

14 Month Rolling Washups*

Must Run Dispatch Auction

	Amount
Month	June 2021
Cleared day auction prices	$0.01 for all days
Cleared night auction prices	$0.01 for all days
No. of revised bids	1

This chart shows total wash-ups <u>due to the clearing manager</u> by billing period and by wash-up revision month

Washup Totals

June 2021 Washups	Value $
Revision 1	$29,265,923.50
Revision 3	$15,611,165.68
Revision 7	$2,938,853.50
Revision 14	$224,064.20
Other Washup	$13,879.46
Total	$48,053,886.34

This chart shows total wash-ups <u>due to the clearing manager</u> by billing period and by wash-up revision month

8. Pricing Market Summary

Pricing Statistics

|	Amount
Month	July 2021
No. of solves	44
No. of solves not published	5
No. of solves published as provisional	8
No. of solves published as final	31
No. of pricing error claims	0

Provisional Price Situations

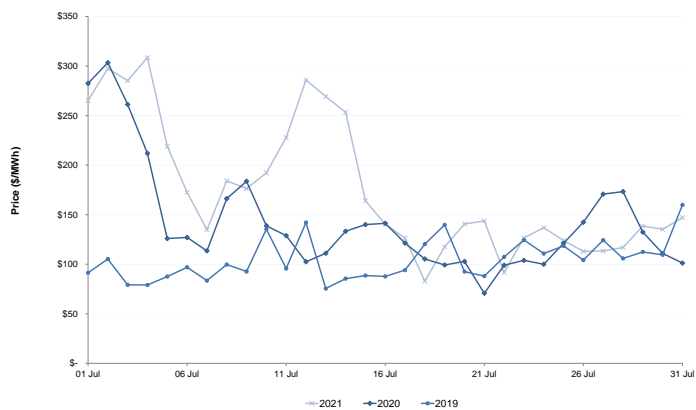|	Amount
Month	July 2021
No. of infeasibility situations	3
No. of metering situations	8
No. of high spring washer price situations	0
No. of SCADA Situations	0

Pricing Publication Times

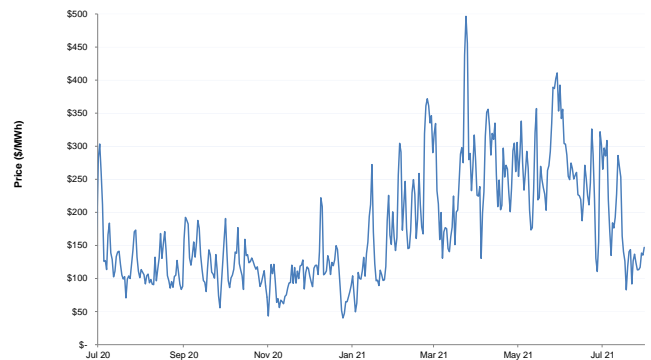|	Amount
1st solve published same day before 9:22	21
2nd solve published same day before 12:00	9
2nd solve published same day before 17:00	4
2nd solve published interim 1st business day following weekend or weekday provisional	0
Interim solve publication delayed more than one business day	0

Daily Average
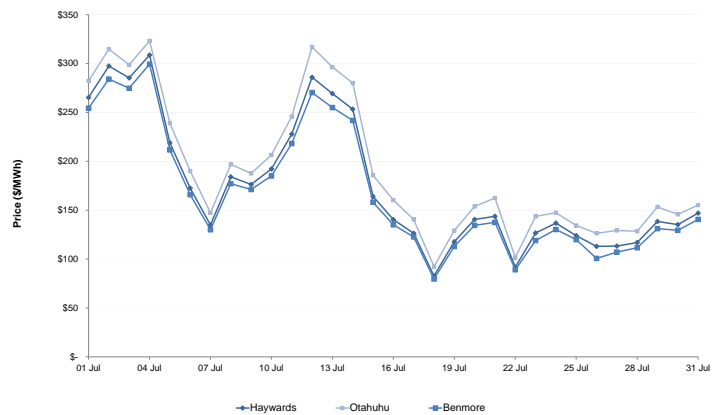
Daily Average Haywards Price Comparison

Haywards 13 Month Daily Average Price

9. Reconciliation Market Summary

Monthly Electricity Volumes

New Zealand Electricity Volumes Traded – Continuous Series

2021 New Zealand Monthly Demand Relative to Previous Years

Dumbells are maximum /minimum demand for the period 2009 - 2021

2021 New Zealand Monthly Generation Relative to Previous Years

Dumbells are maximum /minimum generation for the period 2009 - 2021