



REGULATORY DISCLOSURE

Gas transmission services: Peak flow disclosure

Year ended 30 September 2019



Introduction

Firstgas operates 2,500 kilometres of gas transmission pipelines and more than 4,700 kilometres of gas distribution pipelines across the North Island. These gas infrastructure assets transport natural gas from Taranaki to major industrial gas users, electricity generators, businesses and homes, and transport around 20 percent of New Zealand's primary energy supply. Our distribution network services approximately 63,000 consumers across the regions of Northland, Waikato, Central Plateau, Bay of Plenty, Gisborne and Kapiti.

The Firstgas Group also owns energy infrastructure assets across New Zealand through our affiliate Gas Services NZ Limited (GSNZ), a separate business with common shareholders that owns the Ahuroa gas storage facility and Rockgas. The Ahuroa gas storage facility (trading as Flex Gas) can store up to 18PJ of gas, with expansion planned over the next two years to increase the injection and withdrawal rates of the facility. Rockgas has over 80 years' experience providing LNG to over 90,000 customers throughout New Zealand.

For further information on Firstgas, please visit our website www.firstgas.co.nz.

Compliance statement

This document is a regulatory disclosure prepared pursuant to section 2.5.2 of the *Gas Transmission Information Disclosure Determination 2012* consolidating all amendments as of 24 March 2015 issued by the Commerce Commission. The regulatory disclosure covers Firstgas' gas transmission business (both the Maui and Non-Maui transmission systems) for the 12-month period ending 30 September 2019.

This regulatory disclosure was prepared on 22 November 2019.

Further information

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Disclaimer

For presentation purposes, some numbers in the regulatory disclosure have been rounded. This may cause small discrepancies or rounding inconsistencies when aggregating some of the information presented in the document. These discrepancies do not affect the overall calculations which are based on the more detailed information.

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1. Peak flow information

1.1 North System

INTAKE POINTS	OFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFTAKE PEAK FLOW	
		Period Ending	Throughput (GJ)	Period Ending	Throughput (GJ)
Rotowaro		23-Aug-19	546,355		
	Harrisville 2	23-Aug-19	9,011	28-Jun-19	10,001
	Drury	23-Aug-19	5,278	12-Jul-19	5,548
	Hunua	23-Aug-19	3,520	19-Oct-18	7,478
	Flat Bush	23-Aug-19	7,486	28-Jun-19	8,251
	Bruce McLaren	23-Aug-19	7,306	26-Jul-19	7,469
	Marsden Point	23-Aug-19	67,309	19-Jul-19	71,768
	Waitoki	23-Aug-19	3,509	09-Aug-19	3,707
	Glenbrook	23-Aug-19	30,361	20-Sep-19	38,292
	Westfield	23-Aug-19	131,010	13-Sep-19	134,405
	Warkworth	23-Aug-19	4,327	27-Sep-19	5,212
	Tuakau	23-Aug-19	11,709	27-Sep-19	13,261
	Papakura	23-Aug-19	49,151	27-Sep-19	65,296
	Henderson	23-Aug-19	18,339	28-Jun-19	20,965
	Whangarei	23-Aug-19	2,607	09-Aug-19	2,662
	Maungaturoto	23-Aug-19	7,949	27-Sep-19	10,099
	Waikumete	23-Aug-19	29,528	23-Aug-19	29,528
	Kauri	23-Aug-19	10,083	23-Nov-18	11,340

Note:

1. The North System peak flow period was identified as the period ending 23 August 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the North System's Peak Flow period have been reported.

1.2 Central North System

INTAKE POINTS	OFFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFFTAKE PEAK FLOW	
		Period Ending	Throughput (GJ)	Period Ending	Throughput (GJ)
Rotowaro		23-Aug-19	140,632		
	Hamilton Temple View	23-Aug-19	22,433	23-Aug-19	22,433
	Tatuanui DF	23-Aug-19	6,404	12-Oct-18	7,218
	Waitoa	23-Aug-19	5,766	02-Aug-19	6,615
	Cambridge	23-Aug-19	8,609	27-Sep-19	10,378
	Kiwitahi (Degussa)	23-Aug-19	4,982	23-Aug-19	4,982
	Hamilton Te Kowhai	23-Aug-19	12,107	28-Jun-19	13,153
	Te Rapa Cogen	23-Aug-19	71,936	19-Oct-18	75,312
	Horotiu	23-Aug-19	5,707	03-May-19	6,601

Note:

1. The Central North System peak flow period was identified as the period ending 23 August 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the Central North System's Peak Flow period have been reported.
4. The throughput for Te Rapa Cogen was included when calculating the timing of the System Peak Flow period.

1.3 Central South System

INTAKE POINTS	OFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFTAKE PEAK FLOW	
		Period Ending	Throughput	Period Ending	Throughput
			(GJ)		(GJ)
Kapuni		12-Oct-18	134,631		
	New Plymouth	12-Oct-18	12,448	28-Jun-19	15,741
	Pokuru Offtake	12-Oct-18	116,796	12-Oct-18	116,796

Note:

1. The Central South System Peak flow period was identified as the period ending 12 October 2018.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the Central South System's Peak Flow period have been reported.
4. The throughput for Pokuru Offtake was included when calculating the timing of the System Peak Flow period.

1.4 Bay of Plenty System

INTAKE POINTS	OFFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFFTAKE PEAK FLOW	
		Period Ending	Throughput (GJ)	Period Ending	Throughput (GJ)
Pokuru		27-Sep-19	12,960		
Pokuru 2		27-Sep-19	183,264		
	Lichfield DF	27-Sep-19	9,262	20-Sep-19	9,967
	Lichfield 2	27-Sep-19	19,305	20-Sep-19	19,403
	Edgecumbe DF	27-Sep-19	22,347	20-Sep-19	22,374
	Reporoa	27-Sep-19	7,786	05-Oct-18	9,983
	Whakatane	27-Sep-19	18,253	27-Sep-19	18,253
	Tirau DF	27-Sep-19	7,019	06-Sep-19	7,743
	Pyes Pa	27-Sep-19	2,569	13-Sep-19	2,686
	Kinleith (CHH Mill)	27-Sep-19	60,475	27-Sep-19	60,475
	Kawerau (Tasman)	27-Sep-19	8,535	01-Mar-19	9,323
	Gisborne	27-Sep-19	4,780	22-Mar-19	10,386
	Mt Maunganui	27-Sep-19	9,971	02-Aug-19	10,416
	Rotorua	27-Sep-19	7,251	28-Jun-19	8,649
	Tauranga	27-Sep-19	3,265	28-Jun-19	4,257
	Papamoa	27-Sep-19	2,134	28-Jun-19	2,402
	Taupo	27-Sep-19	2,379	28-Jun-19	2,943
	Tokoroa	27-Sep-19	2,006	05-Jul-19	2,342

Note:

1. The Bay of Plenty System Peak flow period was identified as the period ending 27 September 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the Bay of Plenty System's Peak Flow period have been reported.
4. The throughput for Kawerau (Caxton), has been excluded in 2019 as its System Peak flow was less than 2,000 Gigajoules during the peak flow period.

1.5 South System

INTAKE POINTS	OFFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFFTAKE PEAK FLOW	
		Period Ending	Throughput	Period Ending	Throughput
			(GJ)		(GJ)
Kapuni (South)		23-Aug-19	207,176		
Rimu Production Station		23-Aug-19	1,146		
	Paraparaumu	23-Aug-19	3,170	28-Jun-19	3,335
	Hawera	23-Aug-19	5,080	26-Oct-18	7,710
	Wanganui	23-Aug-19	18,598	27-Sep-19	19,801
	Marton	23-Aug-19	3,277	28-Jun-19	3,366
	Palmerston North	23-Aug-19	19,277	28-Jun-19	21,054
	Longburn	23-Aug-19	3,811	13-Sep-19	4,018
	Levin	23-Aug-19	4,669	19-Jul-19	4,780
	Belmont	23-Aug-19	28,986	28-Jun-19	31,655
	Feilding	23-Aug-19	3,683	28-Jun-19	4,430
	Hastings	23-Aug-19	34,742	05-Apr-19	46,765
	Wellington (Tawa)	23-Aug-19	49,126	28-Jun-19	51,729
	Waitangirua (Hutt Valley)	23-Aug-19	6,640	16-Aug-19	6,660
	Pahiatua DF	23-Aug-19	12,396	19-Oct-18	16,709

Note:

1. The South System Peak flow period was identified as the period ending 23 August 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the South System's Peak Flow period have been reported.
4. Pauatahanui 1 has been excluded in 2019 as its System Peak flow was less than 2,000 Gigajoules during the South System peak flow period.
5. Okaiawa (Taranaki By-Products) has been disconnected in 2018 so is excluded in 2019.

1.6 Frankley Road System

INTAKE POINTS	OFFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFFTAKE PEAK FLOW	
		Period Ending	Throughput (GJ)	Period Ending	Throughput (GJ)
Kupe Production Station		06-Sep-19	372,499		
Sidewinder		06-Sep-19	2,467		
Cheal Mixing Station		06-Sep-19	2,585		
Kaimiro		06-Sep-19	12,571		
KGTP		06-Sep-19	16,938		
Frankley Road		06-Sep-19	272,026		
Taranaki Combined Cycle		06-Sep-19	247,545	06-Sep-19	247,545
	Stratford 3	06-Sep-19	5,284	04-Jan-19	117,921
	Stratford 2	06-Sep-19	82,212	13-Sep-19	135,112
	AUP	06-Sep-19	104,355	21-Jun-19	107,419

Note:

1. The Frankley Road System Peak flow period was identified as the period ending 06 September 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the Frankley Road System's Peak Flow period have been reported.
4. The throughput for Taranaki Combined Cycle, Stratford 2 and Stratford 3 were included when calculating the timing of the System Peak Flow period.
5. Due to low customer nominations, the throughput for Frankley Road DP was not included in 2019. The throughput for Frankley Road DP was less than 2,000 Gigajoules during the System Peak Flow Period.

1.7 South System

INTAKE POINTS	OFFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFFTAKE PEAK FLOW	
		Period Ending	Throughput	Period Ending	Throughput
			(GJ)		(GJ)
Kapuni		23-Aug-19	208,322		
Rimu Production Station		23-Aug-19	1,146		
	Paraparaumu	23-Aug-19	3,170	28-Jun-19	3,335
	Hawera	23-Aug-19	5,080	26-Oct-18	7,710
	Wanganui	23-Aug-19	18,598	27-Sep-19	19,801
	Marton	23-Aug-19	3,277	28-Jun-19	3,366
	Palmerston North	23-Aug-19	19,277	28-Jun-19	21,054
	Longburn	23-Aug-19	3,811	13-Sep-19	4,018
	Levin	23-Aug-19	4,669	19-Jul-19	4,780
	Belmont	23-Aug-19	28,986	28-Jun-19	31,655
	Feilding	23-Aug-19	3,683	28-Jun-19	4,430
	Hastings	23-Aug-19	34,742	05-Apr-19	46,765
	Wellington (Tawa)	23-Aug-19	49,126	28-Jun-19	51,729
	Waitangirua (Hutt Valley)	23-Aug-19	6,640	16-Aug-19	6,660
	Pahiatua DF	23-Aug-19	12,396	19-Oct-18	16,709

Note:

1. The South System Peak flow period was identified as the period ending 23 August 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of, 2000 Gigajoules or more during the South System's Peak Flow period have been reported.
4. Okaiawa Delivery Point to Taranaki By-Products has been excluded in 2019 because the delivery point has been shut off.

1.8 Maui System

INTAKE POINTS	OFFTAKE POINTS >2000 GIGAJOULES DURING PEAK FLOW PERIOD	SYSTEM PEAK FLOW		OFFTAKE PEAK FLOW	
		Period Ending	Throughput (GJ)	Period Ending	Throughput (GJ)
Oaonui		20/09/19	326,304		
Tikorangi 2		20/09/19	279,114		
Tikorangi 3		20/09/19	553,760		
Kowhai		20/09/19	54,485		
Ngatimaru Road		20/09/19	792,758		
Turangi		20/09/19	132,203		
	Pirongia	20/09/19	11,708	27-Sep-19	12,207
	Ngatimaru Road	20/09/19	529,200	04-Jan-19	706,712
	Rotowaro	20/09/19	509,514	23-Aug-19	546,355
	Huntly Power Station	20/09/19	296,540	12-Apr-19	439,552
	Pokuru	20/09/19	161,584	27-Sep-19	183,264
	Bertrand Road	20/09/19	456,988	14-Jun-19	486,488
	Frankley Road	20/09/19	172,235	30-Aug-19	272,026
	Te Kuiti South	20/09/19	2,999	05-Oct-18	4,209

Note:

1. The Maui System Peak flow period was identified as the period ending 20 September 2019.
2. Consistent with the Asset Management Plan, the duration of the peak flow period is 5 days (Monday to Friday inclusive). This is for both the System Peak Flow period and the Offtake Peak Flow period.
3. Offtake points that had a total throughput of 2,000 Gigajoules or more during the Maui System's Peak Flow period have been reported.

2. Peak hourly information

The throughput of gas (in Gigajoules/hour) during each system's Peak 5-day flow period is shown in the following tables. This is reported for all offtake points that had a total throughput of 2,000 Gigajoules or more during their sub-system peak flow period.

2.1 North System

Harrisville 2

Hour	19-Aug-19	20-Aug-19	21-Aug-19	22-Aug-19	23-Aug-19
0	105	48	29	22	53
1	110	36	32	24	56
2	119	55	49	50	42
3	131	67	85	77	57
4	141	90	65	67	62
5	151	90	78	89	80
6	149	89	84	107	73
7	132	81	99	96	75
8	113	64	80	99	93
9	105	64	95	95	112
10	93	102	98	98	104
11	80	99	98	90	103
12	86	98	94	97	107
13	89	95	96	112	108
14	76	74	89	118	110
15	76	78	83	133	112
16	78	84	82	124	105
17	88	82	79	102	98
18	50	41	29	58	49
19	43	16	20	57	33
20	32	22	21	57	26
21	30	20	24	70	27
22	44	32	21	60	27
23	40	37	25	59	57

Drury

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	86	50	39	48	58
1	84	60	38	44	53
2	88	55	41	44	48
3	87	46	40	43	48
4	90	52	48	51	47
5	98	54	47	58	40
6	90	63	53	54	35
7	71	45	44	49	43
8	37	34	36	32	43
9	29	30	33	40	36
10	32	31	28	36	34
11	32	32	30	33	34
12	32	31	34	43	33
13	30	31	31	36	37
14	23	27	29	31	35
15	18	21	32	43	37
16	27	41	38	47	40
17	21	29	18	44	48
18	24	20	14	59	53
19	18	34	16	66	64
20	19	56	14	65	72
21	35	53	21	62	78
22	40	50	32	63	80
23	48	43	49	59	78

Hunua

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	17	28	29	26	31
1	19	32	26	33	31
2	20	31	29	29	27
3	19	30	33	28	29
4	22	29	30	27	31
5	25	33	26	29	31
6	29	35	33	29	30
7	30	35	31	30	32
8	29	33	26	36	28
9	32	29	29	37	28
10	31	32	30	33	29
11	30	34	31	36	24
12	30	33	29	37	22
13	32	33	26	33	22
14	30	40	31	36	22
15	31	36	33	33	21
16	36	33	36	32	22
17	34	33	35	32	26
18	28	30	31	34	26
19	29	27	35	32	24
20	25	30	31	30	24
21	24	30	30	33	18
22	26	27	28	29	16
23	30	31	29	28	14

Kauri

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	109	107	105	75	67
1	106	107	107	65	72
2	108	107	78	60	67
3	104	107	76	78	57
4	113	110	72	105	56
5	110	110	73	104	59
6	103	107	70	108	62
7	104	102	75	104	63
8	103	105	60	108	64
9	100	104	66	105	68
10	68	90	67	93	60
11	75	61	62	36	65
12	73	66	59	66	64
13	68	64	22	66	70
14	56	68	17	60	94
15	49	72	26	62	105
16	67	72	58	94	97
17	77	109	63	116	75
18	107	107	61	107	85
19	102	108	69	108	112
20	97	106	64	106	106
21	99	108	73	106	106
22	104	108	71	108	108
23	109	110	64	78	102

Flat Bush

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	27	50	55	54	51
1	26	53	50	53	51
2	25	51	48	52	52
3	26	52	48	48	51
4	35	45	50	51	47
5	40	47	63	56	49
6	51	65	66	62	53
7	56	70	76	71	63
8	69	69	74	79	74
9	78	81	75	75	71
10	72	77	71	80	71
11	75	79	76	78	77
12	67	70	76	75	68
13	64	73	68	70	73
14	69	58	62	77	73
15	64	64	77	74	71
16	64	71	73	72	71
17	70	77	67	68	70
18	69	75	74	69	66
19	73	71	75	72	59
20	73	71	68	71	56
21	59	64	54	70	41
22	52	55	52	60	38
23	49	59	60	59	34

Bruce McLaren

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	35	38	38	34	31
1	38	35	35	33	32
2	35	35	32	29	30
3	34	37	33	31	30
4	38	39	34	33	32
5	48	52	45	49	46
6	69	68	64	64	63
7	84	84	82	78	79
8	87	82	82	79	84
9	87	83	79	80	82
10	81	82	79	78	82
11	78	83	76	74	80
12	71	79	74	77	79
13	70	74	70	80	79
14	71	66	65	72	76
15	66	62	63	67	71
16	66	65	61	65	70
17	65	74	62	69	72
18	73	74	68	76	76
19	71	73	65	76	72
20	64	69	60	65	67
21	53	58	52	53	60
22	47	49	45	46	51
23	38	42	35	39	44

Marsden Point

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	536	562	567	563	557
1	541	565	569	569	554
2	541	565	569	565	558
3	542	564	569	566	560
4	542	565	571	572	564
5	541	565	570	567	567
6	538	564	566	567	566
7	537	564	566	570	566
8	533	566	565	553	567
9	530	563	562	549	548
10	528	559	563	541	550
11	529	560	562	549	574
12	530	562	562	530	541
13	544	570	567	552	498
14	547	571	558	573	550
15	548	575	560	556	511
16	550	572	568	577	581
17	550	573	562	585	588
18	548	570	566	579	590
19	539	568	547	572	599
20	540	564	569	583	600
21	539	564	570	589	603
22	540	563	570	591	603
23	546	565	572	584	603

Waitoki

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	10	9	9	8	9
1	7	7	6	5	7
2	7	6	5	5	5
3	7	5	6	5	5
4	7	6	5	7	6
5	14	11	7	8	8
6	38	37	33	33	29
7	55	52	47	46	50
8	55	52	49	50	54
9	38	41	46	42	34
10	38	34	44	28	31
11	26	26	26	26	27
12	25	27	26	33	28
13	26	31	28	29	29
14	26	27	20	26	29
15	21	23	19	22	27
16	24	31	21	25	32
17	42	53	33	38	46
18	64	65	51	55	55
19	67	65	55	59	57
20	57	58	52	52	52
21	40	42	35	36	38
22	24	25	25	24	26
23	14	12	13	13	16

Glenbrook

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	141	232	252	162	164
1	108	242	267	158	196
2	113	229	269	154	188
3	111	234	251	150	203
4	133	261	285	152	193
5	254	259	287	155	186
6	261	287	280	268	292
7	275	303	266	288	310
8	287	288	279	279	310
9	283	265	302	255	287
10	268	256	289	248	249
11	262	253	280	261	237
12	264	259	288	264	234
13	263	252	286	259	256
14	273	260	284	259	272
15	279	265	284	269	271
16	278	269	285	264	294
17	280	269	287	247	279
18	280	275	288	255	277
19	273	279	283	273	285
20	295	273	282	276	279
21	280	292	287	275	269
22	262	287	174	285	275
23	244	273	190	166	275

Westfield

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	547	790	866	797	696
1	537	693	817	696	623
2	535	654	768	720	605
3	540	663	759	705	601
4	566	683	796	756	648
5	747	842	948	906	834
6	1140	1155	1214	1180	1114
7	1588	1488	1471	1427	1377
8	1474	1410	1379	1331	1354
9	1299	1239	1206	1155	1256
10	1272	1195	1157	1084	1216
11	1243	1163	1150	1115	1149
12	1258	1171	1164	1181	1181
13	1257	1168	1195	1168	1188
14	1217	1139	1161	1124	1154
15	1179	1148	1119	1120	1145
16	1191	1222	1179	1199	1179
17	1349	1364	1263	1277	1331
18	1447	1488	1385	1438	1407
19	1433	1458	1410	1400	1335
20	1403	1451	1273	1311	1233
21	1236	1243	1132	1129	1051
22	1049	1036	1005	924	854
23	855	935	865	776	716

Warkworth

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	40	12	15	15	10
1	36	15	15	16	16
2	36	16	10	11	19
3	50	21	17	16	28
4	59	36	34	19	32
5	47	50	46	40	35
6	49	46	47	46	41
7	62	39	35	41	36
8	67	59	61	56	53
9	66	66	64	59	58
10	73	73	69	67	58
11	73	71	70	63	55
12	71	73	74	74	61
13	69	70	65	73	55
14	66	61	69	42	55
15	45	34	56	25	52
16	23	19	23	42	41
17	20	22	11	28	45
18	10	9	5	9	18
19	5	6	6	7	13
20	5	5	6	6	22
21	4	5	7	6	31
22	4	6	8	11	37
23	5	13	9	13	34

Tuakau

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	18	110	68	111	109
1	18	110	90	114	115
2	18	110	103	104	105
3	17	116	97	106	106
4	19	117	93	98	100
5	20	118	98	93	105
6	40	135	118	108	114
7	74	129	109	103	101
8	76	123	104	107	96
9	83	121	96	114	99
10	99	131	99	122	78
11	89	118	99	119	77
12	104	117	106	120	62
13	108	123	107	132	62
14	107	123	85	125	57
15	115	128	87	127	72
16	120	118	78	138	84
17	110	109	101	118	80
18	106	105	102	107	76
19	92	96	105	106	86
20	88	96	110	112	82
21	94	100	110	109	74
22	107	99	103	111	70
23	106	75	101	109	64

Papakura

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	446	406	250	340	373
1	428	399	259	312	356
2	431	393	258	295	343
3	435	390	258	291	326
4	438	390	257	281	311
5	471	391	278	285	312
6	548	443	402	408	377
7	616	488	487	516	439
8	608	485	485	524	443
9	551	466	472	500	439
10	493	446	452	481	432
11	447	416	432	472	421
12	382	370	380	486	417
13	363	370	351	476	413
14	344	368	331	428	414
15	341	357	323	381	413
16	351	380	337	376	420
17	429	430	366	445	436
18	463	464	426	469	447
19	469	463	432	488	448
20	463	458	431	484	446
21	457	428	421	468	430
22	430	328	374	433	416
23	412	262	356	402	411

Henderson

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	86	34	26	36	8
1	100	14	13	21	1
2	95	14	9	18	0
3	103	30	4	10	0
4	114	55	6	14	0
5	149	91	46	73	9
6	237	210	173	181	105
7	371	325	300	276	221
8	358	278	271	248	224
9	265	212	205	173	179
10	231	180	177	148	162
11	196	169	173	142	156
12	190	151	164	164	145
13	185	144	150	174	143
14	159	135	133	146	142
15	140	139	122	122	136
16	142	159	121	125	155
17	207	237	164	190	214
18	283	291	219	253	244
19	287	307	252	266	245
20	255	295	224	283	232
21	219	239	194	218	191
22	140	142	114	125	120
23	53	58	49	60	55

Whangarei

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	9	9	8	8	8
1	8	8	9	9	8
2	9	9	9	8	8
3	11	10	11	9	9
4	13	13	14	13	12
5	17	17	17	19	16
6	29	29	30	27	28
7	36	34	35	33	32
8	36	35	36	34	33
9	33	35	35	32	34
10	33	31	31	27	32
11	31	31	30	30	31
12	28	27	30	27	28
13	27	28	29	29	28
14	24	30	27	25	27
15	23	24	25	20	21
16	23	22	24	21	20
17	23	25	24	25	23
18	25	26	26	28	24
19	23	23	26	24	24
20	20	19	22	21	24
21	15	15	18	16	21
22	13	11	13	11	16
23	9	10	10	10	13

Maungaturoto

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	40	53	54	78	79
1	41	53	55	77	88
2	40	54	54	78	86
3	40	65	59	89	83
4	41	62	65	89	73
5	38	65	69	90	55
6	36	64	58	83	62
7	32	52	62	79	60
8	37	59	66	80	73
9	37	57	84	79	81
10	30	50	76	87	84
11	28	42	74	86	88
12	28	40	78	77	87
13	28	48	78	78	85
14	36	56	82	83	85
15	38	64	87	88	88
16	44	60	92	91	89
17	40	65	81	88	80
18	41	63	78	87	75
19	40	57	84	88	78
20	36	52	92	88	76
21	43	42	87	80	81
22	52	51	85	86	82
23	63	55	81	80	78

Waikumete

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	178	172	163	165	160
1	177	162	157	152	143
2	179	162	155	153	138
3	180	163	153	148	134
4	190	171	157	158	140
5	218	189	184	187	168
6	306	280	265	261	243
7	398	355	336	335	307
8	371	337	321	314	297
9	322	292	290	276	274
10	293	275	268	261	265
11	271	265	259	259	262
12	261	263	249	277	264
13	258	253	243	269	257
14	244	240	231	245	248
15	244	243	226	235	248
16	252	261	235	244	261
17	301	306	264	287	293
18	340	337	303	321	308
19	336	332	309	322	301
20	309	312	285	308	284
21	273	275	261	264	257
22	219	215	210	212	214
23	183	176	179	183	184

2.2 Central North System

Hamilton Temple View

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	84	82	79	81	85
1	67	73	65	69	68
2	87	68	63	58	66
3	70	61	64	58	73
4	97	91	79	72	83
5	160	141	133	115	128
6	268	252	226	216	230
7	372	343	309	284	312
8	320	291	267	239	278
9	272	238	234	196	244
10	222	200	202	167	206
11	195	181	174	151	214
12	184	169	169	164	210
13	162	175	172	173	201
14	153	162	153	165	178
15	160	172	155	168	194
16	202	211	188	218	242
17	266	275	242	247	283
18	328	306	289	307	296
19	326	302	276	297	285
20	281	271	253	265	252
21	230	212	206	229	212
22	165	156	154	171	169
23	106	105	107	116	119

Tatuanui DF

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	66	56	58	56	54
1	64	60	58	54	58
2	51	61	59	55	53
3	50	68	61	53	50
4	50	71	65	54	52
5	48	64	64	50	56
6	44	64	55	38	53
7	48	61	57	33	53
8	53	60	59	36	57
9	55	61	57	39	48
10	57	65	55	36	59
11	53	58	58	35	51
12	52	62	51	39	49
13	52	61	48	33	37
14	55	60	44	40	45
15	52	69	47	38	56
16	57	65	49	37	51
17	53	62	54	40	54
18	51	63	55	52	40
19	43	54	55	62	63
20	49	49	45	61	51
21	51	43	38	62	62
22	49	43	45	59	70
23	53	62	54	58	69

Waitoa

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	31	48	44	48	47
1	25	45	47	47	47
2	18	43	48	46	49
3	20	40	45	49	50
4	22	42	46	48	50
5	32	43	49	49	46
6	36	31	48	46	48
7	34	29	50	47	42
8	35	36	50	49	45
9	34	44	54	51	50
10	36	45	57	54	54
11	39	48	54	52	51
12	40	56	53	53	51
13	44	56	53	56	53
14	44	60	56	56	57
15	46	61	60	51	56
16	50	60	59	50	56
17	51	66	58	55	59
18	55	60	56	55	58
19	54	60	54	47	55
20	51	53	51	45	54
21	43	45	52	48	63
22	43	45	46	51	53
23	45	41	48	49	46

Cambridge

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	59	83	70	47	65
1	59	76	64	57	65
2	54	80	65	59	63
3	39	82	70	63	60
4	29	79	64	63	60
5	52	79	69	60	58
6	76	90	75	69	61
7	88	91	86	70	73
8	80	76	79	69	64
9	79	74	74	63	68
10	72	63	82	69	77
11	81	61	79	45	70
12	81	47	82	40	69
13	79	47	79	59	64
14	74	63	73	66	64
15	73	69	65	66	67
16	93	75	70	73	72
17	111	85	79	77	82
18	119	87	82	82	85
19	116	89	76	81	76
20	107	67	64	76	72
21	102	56	71	73	70
22	103	74	58	66	73
23	84	69	50	59	77

Kiwitahi (Degussa)

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	39	40	44	37	42
1	38	41	44	38	42
2	41	42	43	38	41
3	39	41	42	38	42
4	41	42	41	41	41
5	40	40	42	42	39
6	38	40	40	42	40
7	39	40	42	44	42
8	40	40	42	42	41
9	37	41	43	43	42
10	38	42	45	43	42
11	39	45	44	42	41
12	40	44	43	42	43
13	41	45	45	45	44
14	41	45	45	45	42
15	40	45	43	45	43
16	39	45	44	45	44
17	42	44	45	44	44
18	40	44	43	45	44
19	40	44	44	43	44
20	40	44	27	42	43
21	39	43	21	42	44
22	40	44	33	44	42
23	41	44	38	43	41

Hamilton Te Kowhai

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	67	69	68	66	67
1	64	65	65	62	63
2	64	62	62	61	64
3	64	62	61	58	61
4	67	66	65	67	66
5	79	71	72	72	73
6	123	110	103	105	103
7	184	161	143	147	148
8	157	141	130	132	140
9	128	117	119	108	117
10	108	106	111	98	111
11	100	99	106	94	109
12	97	98	95	97	106
13	92	95	94	100	103
14	87	91	84	95	96
15	87	93	86	96	98
16	94	100	96	110	113
17	116	125	112	121	129
18	154	148	137	153	141
19	163	147	137	151	140
20	144	130	122	133	124
21	118	106	103	113	106
22	92	85	85	90	89
23	78	72	68	72	71

Te Rapa Cogen

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	624	664	592	580	612
1	600	624	604	592	604
2	608	612	612	600	608
3	600	616	608	592	600
4	624	620	600	588	596
5	640	628	604	588	596
6	672	620	576	600	608
7	668	660	540	596	588
8	676	628	544	604	580
9	676	588	536	580	572
10	640	580	536	580	560
11	632	576	532	576	568
12	616	552	536	576	572
13	604	552	544	596	576
14	620	540	540	596	572
15	632	540	548	592	568
16	644	540	548	596	576
17	644	624	540	596	572
18	616	656	556	596	604
19	624	660	580	600	620
20	660	660	580	600	604
21	656	660	592	596	596
22	660	664	584	600	600
23	660	600	572	592	608

2.3 Central South System

New Plymouth

Hour	08/10/2018	9/10/2018	10/10/2018	11/10/2018	12/10/2018
0	58	68	73	72	61
1	54	68	64	62	62
2	60	69	60	69	63
3	70	69	71	84	60
4	74	93	83	92	79
5	119	119	105	111	119
6	151	159	147	157	138
7	141	157	144	145	135
8	124	123	122	137	133
9	107	119	115	127	114
10	97	108	103	125	110
11	94	110	98	116	106
12	83	97	106	97	106
13	86	95	101	102	84
14	88	91	97	109	85
15	86	102	96	112	108
16	95	116	114	135	134
17	104	129	125	138	149
18	113	139	131	133	165
19	105	124	133	122	168
20	95	106	118	106	149
21	87	96	101	90	123
22	73	81	86	81	113
23	66	72	77	62	88

Pokuru Offtake

Hour	08/10/2018	9/10/2018	10/10/2018	11/10/2018	12/10/2018
0	860	728	1216	868	1008
1	864	724	1208	1076	952
2	860	728	1204	1300	652
3	868	728	1204	1300	724
4	868	724	1204	1296	720
5	868	728	1208	1300	720
6	868	728	1212	1300	720
7	868	740	1216	1296	720
8	764	1008	1216	1300	720
9	724	1224	1220	1300	720
10	724	1276	1212	1296	720
11	720	1240	1208	1252	724
12	724	1236	1216	1292	720
13	724	1240	1224	1188	720
14	720	1236	1208	1072	720
15	724	1252	1196	1228	724
16	720	1260	976	1212	720
17	724	1280	872	1188	720
18	728	1288	868	1188	720
19	728	1288	868	1036	720
20	728	1276	868	1008	720
21	724	1264	888	1004	724
22	728	1240	932	1012	720
23	728	1224	868	1008	720

2.4 Bay of Plenty System**Lichfield DF**

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	68	92	73	91	83
1	63	86	75	81	77
2	60	93	72	90	90
3	63	91	77	86	89
4	67	77	60	85	76
5	74	83	64	88	79
6	61	80	71	95	80
7	54	79	80	100	75
8	75	89	78	103	63
9	75	95	87	100	62
10	79	93	75	111	76
11	84	90	84	105	79
12	85	87	72	88	63
13	62	95	59	81	49
14	64	84	53	78	48
15	56	96	72	81	61
16	81	85	70	76	57
17	84	93	77	79	62
18	83	81	61	84	56
19	80	74	79	77	55
20	83	77	73	77	45
21	79	82	80	71	61
22	78	81	84	75	55
23	86	85	90	82	64

Lichfield 2

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	163	165	156	164	160
1	160	163	163	163	159
2	165	164	157	165	170
3	162	166	161	169	157
4	162	168	156	165	159
5	164	162	165	165	157
6	167	168	163	163	158
7	164	166	159	156	164
8	163	165	161	159	160
9	157	166	156	168	160
10	161	155	163	164	159
11	158	170	164	158	155
12	155	157	163	164	165
13	153	152	162	158	164
14	156	152	161	161	159
15	168	161	147	158	162
16	166	161	167	158	152
17	160	168	167	164	160
18	161	172	166	153	164
19	161	159	158	150	159
20	161	159	163	153	155
21	157	157	150	166	158
22	158	159	163	158	157
23	160	158	166	162	157

Edgecumbe DF

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	198	198	192	198	192
1	188	193	196	199	187
2	187	190	200	199	188
3	191	191	192	204	192
4	190	192	194	204	192
5	187	196	193	197	201
6	187	192	187	196	205
7	188	190	176	197	196
8	194	190	181	189	189
9	182	184	172	175	182
10	160	191	157	163	190
11	147	187	180	165	197
12	150	195	195	165	194
13	173	202	193	165	198
14	190	191	192	160	193
15	200	198	189	159	181
16	192	201	181	150	173
17	190	197	185	151	180
18	181	183	186	163	179
19	175	187	197	176	182
20	172	194	194	178	190
21	173	191	188	185	192
22	174	183	189	196	188
23	185	186	201	194	191

Reporoa

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	67	68	68	81	15
1	69	66	71	79	42
2	65	68	68	82	47
3	67	67	62	80	62
4	66	67	62	82	73
5	66	66	62	82	77
6	68	66	60	82	78
7	66	69	55	79	79
8	62	66	36	77	76
9	64	67	35	81	76
10	68	69	21	64	76
11	65	70	24	20	72
12	65	69	26	34	68
13	66	68	30	67	69
14	66	66	30	73	75
15	66	69	53	76	78
16	67	69	73	75	77
17	66	68	71	76	75
18	67	66	73	72	76
19	69	66	73	74	75
20	67	68	71	71	75
21	67	68	72	29	75
22	68	70	81	7	75
23	66	69	79	6	72

Whakatane

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	143	145	152	150	149
1	144	146	151	150	148
2	145	144	150	150	150
3	145	147	149	148	147
4	142	149	153	153	151
5	148	153	152	155	154
6	151	154	156	157	154
7	151	157	160	158	154
8	152	157	158	158	154
9	153	159	159	159	155
10	155	158	159	159	157
11	150	160	159	158	156
12	149	163	158	159	155
13	148	161	158	155	155
14	146	161	155	155	152
15	146	159	155	151	152
16	145	159	153	153	149
17	143	161	155	151	147
18	143	159	152	152	148
19	143	159	151	151	149
20	141	157	152	154	151
21	141	153	151	151	150
22	141	153	149	148	149
23	144	150	149	149	145

Tirau DF

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	8	35	55	36	80
1	9	30	46	27	79
2	7	26	43	11	71
3	9	25	27	35	55
4	10	24	23	38	55
5	17	31	24	36	45
6	47	50	35	41	39
7	69	75	42	66	62
8	66	74	58	70	69
9	61	74	70	60	84
10	62	69	75	54	81
11	64	60	64	54	83
12	65	63	65	55	77
13	62	64	64	64	80
14	61	63	62	75	79
15	58	66	63	76	76
16	64	74	75	71	75
17	70	78	75	77	70
18	70	75	74	78	75
19	64	75	77	78	78
20	63	72	62	76	75
21	48	73	60	78	76
22	55	72	49	79	75
23	49	58	41	78	73

Pyes Pa

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	11	13	14	14	14
1	11	12	13	14	13
2	10	12	13	14	13
3	12	12	13	14	13
4	16	14	15	15	14
5	16	16	17	18	16
6	22	22	22	24	22
7	26	25	27	27	27
8	27	28	26	28	28
9	26	30	28	29	29
10	25	27	27	27	27
11	25	28	29	26	26
12	26	28	24	26	26
13	28	27	25	27	27
14	26	25	26	27	26
15	24	25	25	26	24
16	25	30	27	26	23
17	25	28	28	22	22
18	23	25	25	24	22
19	21	24	24	24	22
20	19	22	22	23	20
21	18	20	21	20	19
22	15	17	17	17	17
23	14	15	15	15	16

Kinleith (CHH Mill)

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	192	256	686	470	629
1	225	202	599	579	562
2	229	196	603	645	377
3	219	489	627	714	343
4	267	651	575	645	284
5	369	830	575	685	317
6	490	703	585	727	272
7	486	670	586	971	212
8	484	481	584	1021	238
9	513	442	568	998	297
10	373	524	574	917	319
11	208	502	594	834	281
12	197	537	590	830	406
13	214	677	695	770	505
14	213	709	793	739	545
15	182	751	548	545	533
16	170	765	480	526	519
17	171	722	444	615	498
18	171	727	446	569	355
19	176	642	511	583	437
20	180	619	523	546	438
21	267	650	654	515	396
22	267	666	539	540	369
23	272	677	490	546	326

Kawerau (Tasman)

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	72	77	67	65	70
1	73	78	68	65	71
2	72	78	67	65	71
3	72	78	68	65	71
4	73	78	68	65	72
5	73	77	68	65	72
6	73	77	67	63	73
7	73	77	70	62	72
8	73	77	71	63	72
9	73	71	71	64	73
10	73	70	72	67	73
11	73	71	72	67	73
12	73	71	71	69	72
13	73	72	70	73	73
14	73	71	70	74	72
15	73	70	70	73	73
16	74	70	70	73	72
17	75	70	70	72	72
18	76	69	70	72	73
19	76	68	69	70	74
20	76	67	69	69	73
21	76	68	67	69	73
22	76	68	65	70	75
23	76	68	65	70	74

Tauranga

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	1	3	5	8	5
1	1	2	3	6	2
2	0	1	3	7	2
3	1	2	3	6	2
4	5	4	6	8	4
5	10	12	15	19	12
6	34	34	40	47	39
7	51	46	53	57	48
8	40	42	47	50	47
9	31	38	38	41	40
10	31	38	40	40	38
11	29	39	37	36	38
12	25	37	34	35	37
13	27	36	28	35	33
14	22	33	27	30	31
15	19	30	25	26	31
16	23	36	31	28	27
17	26	51	45	34	34
18	37	59	51	47	42
19	35	56	53	46	45
20	29	45	44	39	38
21	22	34	34	29	27
22	10	17	22	16	18
23	5	9	12	7	11

Gisborne

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	21	20	24	30	25
1	21	21	25	26	26
2	21	23	25	26	26
3	23	23	26	25	25
4	24	22	26	26	24
5	30	28	33	35	34
6	45	40	47	46	46
7	58	54	60	62	57
8	53	50	53	62	53
9	48	48	50	59	54
10	48	42	45	57	48
11	61	44	44	55	51
12	58	43	43	49	51
13	40	40	45	50	50
14	38	40	41	49	47
15	35	41	42	46	46
16	33	40	43	41	47
17	38	43	50	47	47
18	43	49	54	52	49
19	41	46	53	54	44
20	36	41	45	48	38
21	31	34	40	42	35
22	25	28	34	34	28
23	22	24	30	29	25

Mount Maunganui

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	63	56	73	67	68
1	63	64	66	68	60
2	62	64	69	72	60
3	73	73	79	78	78
4	73	74	82	83	68
5	63	68	95	86	77
6	70	85	104	95	87
7	83	99	109	125	97
8	77	83	104	122	90
9	80	88	108	101	93
10	77	99	107	100	86
11	93	97	103	91	85
12	94	97	96	98	92
13	92	95	95	95	81
14	87	89	89	98	79
15	87	82	100	108	82
16	85	77	86	94	77
17	76	86	87	85	81
18	78	94	92	94	86
19	77	89	93	92	84
20	74	84	85	85	72
21	68	74	76	81	71
22	68	68	76	73	66
23	64	80	67	66	61

Rotorua

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	24	26	30	36	27
1	23	24	28	34	24
2	23	26	27	35	25
3	23	26	28	36	25
4	28	27	32	40	28
5	40	41	50	56	44
6	76	74	86	96	77
7	92	91	108	114	95
8	78	84	96	97	80
9	69	68	81	83	71
10	65	80	76	76	65
11	63	79	71	76	60
12	58	76	69	70	59
13	51	75	64	65	56
14	52	62	68	61	47
15	52	68	61	54	47
16	52	74	82	55	47
17	69	89	96	68	61
18	77	102	100	88	70
19	76	98	97	90	74
20	66	88	89	85	70
21	54	67	74	68	61
22	37	45	52	44	43
23	29	33	39	32	32

Papamoa

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	8	9	10	10	9
1	6	9	10	8	8
2	7	9	9	9	7
3	7	9	10	10	9
4	8	9	10	11	8
5	12	10	13	14	11
6	20	19	23	23	21
7	27	24	28	29	26
8	20	21	23	23	22
9	18	19	19	21	20
10	16	20	18	19	19
11	16	19	18	19	18
12	16	19	17	17	17
13	15	20	16	17	15
14	14	17	15	16	14
15	14	18	16	17	14
16	18	22	19	19	17
17	23	29	29	25	21
18	28	34	31	32	25
19	28	34	33	33	27
20	23	28	27	28	25
21	19	24	23	24	21
22	14	15	17	16	15
23	10	12	12	12	11

Taupo

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	4	4	7	9	6
1	4	4	7	8	6
2	4	4	7	9	6
3	4	4	7	9	7
4	6	4	8	10	7
5	9	7	10	15	11
6	20	20	26	30	26
7	31	28	36	40	36
8	27	26	34	38	31
9	23	23	26	32	25
10	19	22	21	28	23
11	17	24	23	26	21
12	16	22	22	24	18
13	14	17	21	22	19
14	15	15	20	18	16
15	13	17	26	15	14
16	17	28	32	24	15
17	27	38	36	34	20
18	30	41	39	41	26
19	28	39	37	40	29
20	22	33	35	34	28
21	17	25	29	24	22
22	9	15	18	15	13
23	6	8	10	9	9

Tokoroa

Hour	23/09/2019	24/09/2019	25/09/2019	26/09/2019	27/09/2019
0	3	3	5	5	4
1	3	3	4	5	4
2	2	2	4	4	4
3	3	3	4	5	4
4	4	4	5	5	5
5	7	6	8	10	8
6	14	13	17	19	16
7	17	23	27	21	25
8	34	42	43	18	41
9	37	40	41	19	37
10	17	21	20	12	15
11	34	39	38	23	35
12	32	39	38	36	34
13	19	24	27	24	19
14	18	23	32	29	28
15	33	37	38	33	24
16	28	32	34	28	7
17	11	16	16	10	8
18	12	16	16	14	11
19	11	16	15	14	11
20	9	13	13	12	10
21	7	11	11	10	7
22	5	7	8	7	6
23	4	5	6	5	5

2.6 South System

Paraparaumu

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	11	9	7	7	7
1	12	8	7	7	6
2	13	8	7	6	6
3	14	8	7	8	7
4	17	12	9	11	11
5	26	20	17	17	17
6	41	36	29	29	29
7	56	47	40	41	42
8	59	50	39	43	43
9	44	40	36	38	34
10	32	34	31	31	34
11	28	31	27	25	34
12	25	27	27	20	33
13	20	23	23	17	29
14	17	18	20	15	24
15	19	19	17	19	23
16	22	23	21	25	30
17	38	37	35	38	38
18	52	46	46	45	45
19	53	45	43	42	45
20	49	38	38	37	41
21	39	29	28	29	36
22	23	18	17	17	24
23	14	10	10	10	14

Hawera

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	34	33	9	10	32
1	33	32	8	29	30
2	34	30	7	28	30
3	37	31	8	28	30
4	36	38	13	35	36
5	34	50	26	46	47
6	47	60	36	55	57
7	58	55	56	64	66
8	67	43	68	64	68
9	71	36	66	60	66
10	65	34	61	61	67
11	62	33	57	60	65
12	58	31	58	54	56
13	58	31	51	41	45
14	54	29	49	39	20
15	51	30	46	34	23
16	49	32	45	29	34
17	57	40	51	33	52
18	67	42	57	47	51
19	56	40	56	60	52
20	38	36	50	53	51
21	36	28	27	50	48
22	25	19	17	39	40
23	20	12	13	34	34

Wanganui

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	96	134	135	116	128
1	91	123	117	112	125
2	94	110	105	110	122
3	94	93	102	108	124
4	105	79	105	103	138
5	120	105	136	78	155
6	182	153	152	126	130
7	204	202	190	155	170
8	198	212	179	158	154
9	193	181	159	157	148
10	169	167	147	152	138
11	157	154	143	150	140
12	141	148	139	140	131
13	130	169	137	159	132
14	124	165	133	169	135
15	124	164	130	181	147
16	147	177	150	194	167
17	184	212	179	216	208
18	211	237	195	228	231
19	210	226	197	225	222
20	196	216	183	216	216
21	175	194	140	194	198
22	152	177	117	156	185
23	140	151	108	135	155

Marton

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	29	42	6	37	34
1	25	42	6	35	35
2	26	41	5	35	35
3	26	42	5	32	35
4	25	39	12	25	36
5	22	39	30	28	39
6	21	37	33	26	39
7	23	35	35	26	40
8	16	36	35	25	40
9	12	32	35	21	40
10	17	27	34	15	37
11	30	24	35	21	36
12	32	20	33	30	36
13	32	17	13	28	33
14	33	6	39	23	26
15	33	9	35	21	23
16	34	9	35	18	21
17	38	9	36	20	23
18	40	10	39	21	12
19	41	10	39	23	12
20	40	9	40	32	9
21	42	8	39	34	8
22	42	6	38	33	7
23	42	7	38	33	5

Palmerston North

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	79	80	63	62	62
1	78	76	58	65	58
2	81	75	61	62	58
3	79	78	59	67	60
4	103	102	80	80	82
5	149	147	120	120	112
6	238	235	206	206	202
7	318	316	279	270	267
8	286	277	250	243	232
9	248	250	216	212	216
10	215	220	200	179	202
11	190	190	188	171	200
12	171	161	172	160	187
13	165	147	160	148	188
14	139	124	144	129	169
15	131	117	138	139	158
16	146	134	158	181	176
17	192	175	194	209	199
18	239	215	231	218	218
19	239	213	218	210	215
20	220	193	195	194	193
21	187	163	158	161	168
22	137	115	117	117	128
23	95	83	78	82	93

Longburn

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	27	27	27	29	26
1	28	26	25	27	27
2	30	26	27	29	24
3	28	26	25	26	21
4	25	24	26	28	25
5	27	33	26	39	25
6	48	39	45	42	41
7	48	45	42	42	36
8	41	54	38	49	36
9	40	52	38	55	38
10	37	52	36	53	35
11	39	42	31	43	30
12	33	31	31	36	28
13	33	31	32	34	30
14	33	28	30	30	26
15	35	28	33	28	24
16	29	28	29	30	26
17	28	27	29	28	28
18	29	28	30	30	29
19	29	28	30	27	28
20	30	29	30	28	28
21	31	28	32	27	27
22	30	26	29	28	21
23	30	26	29	27	18

Levin

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	23	19	28	21	18
1	20	17	28	14	17
2	17	16	23	12	16
3	19	17	21	13	16
4	23	31	26	22	27
5	37	39	35	33	33
6	42	48	40	43	43
7	61	61	47	56	62
8	65	61	51	59	65
9	56	54	49	55	58
10	48	45	56	50	58
11	44	44	51	51	55
12	36	51	44	49	49
13	40	45	47	42	36
14	27	36	47	41	33
15	27	33	52	39	34
16	35	33	43	39	37
17	42	40	41	43	43
18	51	50	47	51	47
19	50	50	41	51	47
20	50	47	36	45	44
21	42	39	33	39	40
22	35	34	32	33	33
23	25	30	26	23	28

Belmont

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	146	121	99	97	89
1	136	113	97	95	87
2	142	117	103	96	93
3	149	114	103	96	92
4	172	131	118	118	109
5	233	186	169	161	159
6	415	352	317	304	308
7	568	488	427	402	400
8	494	403	371	345	355
9	390	311	296	303	310
10	325	265	274	235	263
11	271	250	246	214	239
12	241	236	234	212	231
13	221	220	222	200	222
14	202	207	204	182	210
15	192	195	186	169	189
16	225	219	204	223	211
17	330	312	275	296	276
18	426	381	364	349	330
19	433	373	361	341	325
20	394	323	318	301	301
21	339	265	256	249	263
22	241	189	192	170	199
23	166	123	135	112	139

Feilding

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	18	19	20	17	19
1	18	19	18	18	17
2	17	20	19	17	18
3	19	20	19	17	17
4	21	24	21	18	19
5	27	30	25	24	25
6	39	39	35	31	34
7	50	52	46	45	48
8	50	52	45	42	49
9	43	50	41	36	46
10	36	44	38	31	45
11	34	42	34	29	44
12	29	32	33	29	39
13	25	28	32	28	42
14	26	26	29	28	36
15	28	28	28	31	30
16	27	28	29	35	31
17	33	33	33	39	33
18	39	37	38	40	35
19	37	34	35	33	34
20	34	34	33	33	33
21	31	30	29	31	32
22	24	25	22	24	23
23	21	21	19	21	20

Hastings

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	209	248	225	234	212
1	210	245	235	229	218
2	204	249	233	231	226
3	207	258	222	248	230
4	249	277	243	252	225
5	265	332	262	273	237
6	339	404	317	322	296
7	378	494	368	380	341
8	379	512	389	362	339
9	365	419	359	327	314
10	361	386	354	304	307
11	304	332	343	304	304
12	281	317	349	281	302
13	315	300	334	271	284
14	305	335	309	254	256
15	293	319	314	267	263
16	309	305	309	279	277
17	314	308	307	272	289
18	297	305	301	262	303
19	297	286	297	263	293
20	315	301	294	278	270
21	288	264	263	238	245
22	249	223	231	224	221
23	232	224	244	219	205

Wellington (Tawa)

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	191	174	148	148	153
1	191	162	141	133	148
2	205	165	145	140	145
3	222	175	149	145	152
4	282	216	179	182	184
5	390	336	295	281	291
6	640	597	528	526	522
7	916	831	749	751	742
8	850	740	658	649	654
9	654	545	532	519	518
10	543	476	473	412	437
11	484	461	469	396	411
12	450	417	428	356	403
13	423	432	398	334	389
14	410	408	381	334	330
15	416	409	355	334	303
16	489	472	406	415	361
17	617	558	497	515	465
18	691	605	570	564	511
19	679	575	565	541	501
20	617	509	519	495	466
21	511	421	433	413	396
22	334	290	297	292	294
23	205	189	187	189	207

Waitangirua (Hutt Valley)

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	28	25	17	17	20
1	28	21	17	17	18
2	30	21	17	16	18
3	30	24	17	17	17
4	36	27	22	20	22
5	57	46	41	40	40
6	115	97	88	86	86
7	142	115	104	103	105
8	114	93	85	85	83
9	89	68	71	68	73
10	74	62	64	54	65
11	63	62	61	45	58
12	55	58	49	44	51
13	49	54	43	38	49
14	43	47	39	32	40
15	41	47	35	36	35
16	54	55	44	52	44
17	81	78	65	73	59
18	102	94	85	86	75
19	101	89	83	82	74
20	90	75	74	74	70
21	70	59	57	61	60
22	47	39	39	41	43
23	30	25	25	26	29

Pahiatua DF

Hour	19/08/2019	20/08/2019	21/08/2019	22/08/2019	23/08/2019
0	127	119	74	121	94
1	110	122	78	123	93
2	126	127	80	123	92
3	117	121	78	121	93
4	110	117	79	122	98
5	109	119	88	113	84
6	116	120	92	104	89
7	104	108	101	101	89
8	95	80	95	91	88
9	93	94	102	88	87
10	92	95	104	86	86
11	99	92	97	83	98
12	119	101	96	88	100
13	118	92	104	91	100
14	126	89	116	85	100
15	125	93	114	92	113
16	123	87	120	88	129
17	125	90	116	90	128
18	126	84	117	83	128
19	126	73	115	87	127
20	132	76	113	89	126
21	138	74	116	94	126
22	121	73	114	94	131
23	117	73	117	91	117

2.6 Frankley Road System**Taranaki Combined Cycle**

Hour	02/09/2019	3/09/2019	4/09/2019	5/09/2019	6/09/2019
0	1827	1919	2046	2017	2052
1	1656	1759	1862	1860	1998
2	1635	1637	1860	1815	1865
3	1636	1635	1860	1630	1857
4	1635	1633	1860	1700	1741
5	1801	1810	1897	1795	1935
6	2085	2146	2139	2099	2174
7	2186	2186	2175	2171	2179
8	2184	2182	2183	2183	2179
9	1881	2181	2184	2184	2177
10	1941	2182	2184	2181	2178
11	2042	2181	2184	2182	2179
12	2184	2181	2182	2188	2177
13	2181	2180	2183	2182	2176
14	2181	2182	2183	2201	2175
15	2183	2181	2184	2189	2177
16	1896	2179	2184	2179	2177
17	1788	2180	2183	2178	2176
18	1865	2179	2183	2178	2175
19	2145	2178	2180	2179	2177
20	2179	2179	2180	2176	2177
21	2087	2179	2180	2178	2176
22	2098	2133	2181	2180	2176
23	1753	2101	1955	2165	2178

Stratford 3

Hour	02/09/2019	3/09/2019	4/09/2019	5/09/2019	6/09/2019
0	0	15	0	0	0
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0	0	0
11	0	0	0	0	0
12	0	0	0	0	0
13	0	0	0	0	0
14	140	0	108	0	0
15	76	0	117	0	0
16	0	0	11	128	77
17	570	0	0	71	101
18	362	0	0	0	2
19	0	0	0	0	0
20	2	0	0	0	0
21	1197	0	0	0	0
22	1198	0	0	0	0
23	1109	0	0	0	0

AUP

Hour	02/09/2019	3/09/2019	4/09/2019	5/09/2019	6/09/2019
0	872	873	874	863	867
1	871	874	873	865	864
2	877	884	872	868	869
3	873	880	876	863	870
4	873	884	872	866	867
5	878	880	872	862	870
6	869	872	873	854	867
7	875	866	872	860	867
8	866	873	873	861	867
9	867	879	869	861	866
10	862	877	865	857	865
11	870	876	857	862	873
12	877	879	854	863	869
13	873	874	856	862	875
14	871	875	865	863	871
15	873	875	859	866	874
16	870	871	859	855	875
17	874	866	855	865	877
18	871	872	865	860	876
19	871	872	866	864	876
20	871	873	873	868	873
21	875	874	865	869	878
22	872	874	870	865	880
23	873	874	868	872	882

Stratford 2

Hour	02/09/2019	3/09/2019	4/09/2019	5/09/2019	6/09/2019
0	0	0	0	0	0
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	32	0	0	44
6	306	744	20	4	784
7	846	752	732	708	1680
8	760	956	868	938	1698
9	1308	932	880	884	1642
10	592	960	914	884	1708
11	552	964	926	846	1904
12	322	1000	936	888	1886
13	0	900	892	944	1886
14	0	886	890	938	1808
15	0	870	930	1156	1828
16	310	948	940	1556	1886
17	1392	944	876	1640	1774
18	1366	876	928	1638	1596
19	1006	884	856	1518	1492
20	788	928	812	1164	1732
21	312	688	306	868	1296
22	0	56	0	844	846
23	0	0	0	84	334

2.7 Maui System**Pirongia**

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	106	103	81	92	111
1	105	102	90	88	126
2	102	102	94	87	131
3	104	103	97	85	121
4	103	103	97	89	122
5	101	102	98	91	122
6	124	108	104	91	123
7	114	108	103	91	119
8	106	104	101	86	118
9	101	87	106	75	116
10	86	89	100	88	116
11	84	87	103	102	114
12	104	89	101	100	117
13	103	91	94	105	116
14	100	91	92	104	91
15	103	89	94	94	98
16	103	77	97	91	102
17	108	0	79	99	106
18	123	2	42	104	108
19	105	17	90	103	107
20	106	63	100	104	112
21	103	82	89	101	112
22	105	82	79	104	112
23	104	85	91	108	112

Ngatimaru Road

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	4856	4744	4448	4448	4264
1	4408	4376	4248	4224	4024
2	4128	4328	4224	4224	4000
3	4120	4272	4224	4232	3992
4	4120	4232	4184	4256	3992
5	4120	4232	4224	4280	3992
6	4344	4224	4224	4312	4024
7	4664	4224	4216	4304	4024
8	5072	4216	4216	4312	4024
9	5008	4232	4216	4304	4056
10	4816	4272	4224	4312	4072
11	4800	4264	4224	4312	4080
12	4800	4272	4224	4312	4072
13	4808	4272	4224	4320	4080
14	4808	4272	4440	4328	4104
15	4976	4272	4448	4352	4096
16	5184	4376	4536	4384	4096
17	5200	4440	4576	4400	4280
18	5208	4440	4656	4400	4416
19	5208	4440	4672	4400	4480
20	5200	4432	4720	4400	4480
21	5192	4448	4744	4392	4488
22	5168	4440	4744	4400	4480
23	5120	4440	4744	4400	4488

Te Kuiti South

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	23	24	24	28	27
1	24	24	24	28	27
2	23	24	26	27	26
3	24	24	25	28	26
4	23	24	26	27	25
5	23	24	25	27	26
6	22	23	26	27	26
7	22	23	25	27	26
8	22	23	25	18	26
9	22	23	25	27	27
10	23	24	26	28	27
11	24	21	27	28	27
12	24	20	27	28	27
13	25	26	26	28	21
14	24	25	4	28	4
15	25	26	21	18	5
16	25	25	27	28	25
17	25	26	28	24	27
18	26	26	28	28	27
19	26	26	29	28	27
20	26	25	29	28	27
21	26	25	29	28	28
22	26	25	29	28	27
23	24	24	28	27	26

Rotowaro

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	3500	3772	3828	3892	3922
1	3422	3590	3704	3718	3736
2	3318	3470	3672	3630	3616
3	3248	3370	3618	3576	3662
4	3668	3434	3606	3588	3710
5	3516	3520	3696	3724	3888
6	4028	3920	4160	4132	4308
7	4724	4474	4788	4620	4734
8	4914	4634	5040	4980	5034
9	4842	4604	5032	4870	4822
10	4552	4488	4926	4802	4618
11	4314	4386	4806	4726	4540
12	3364	4270	4630	4628	4548
13	4048	4194	4510	4562	4336
14	4122	4218	4352	4548	4210
15	4192	4184	4204	4440	4034
16	4190	4272	4260	4376	3952
17	4336	4450	4284	4432	3978
18	4542	4586	4424	4452	4110
19	4586	4696	4638	4380	4292
20	4666	4760	4664	4692	4372
21	4644	4736	4674	4672	4348
22	4544	4610	4586	4684	3988
23	4256	4134	4282	4186	3754

Huntly Power Station

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	1948	1928	1916	1992	1824
1	1820	1816	1824	1828	1816
2	1772	1816	1828	1832	1804
3	1792	1784	1824	1828	1840
4	1800	1856	1824	1828	1832
5	2152	2152	2056	1996	2108
6	2516	2416	2504	2724	2500
7	2696	2764	2868	2880	2884
8	2728	2780	2872	2864	2888
9	2504	2736	2684	2680	2628
10	2488	2744	2368	2504	2504
11	2664	2740	2360	2432	2440
12	2772	2748	2500	2636	2392
13	2768	2752	2500	2796	2488
14	2764	2752	2776	2792	2496
15	2764	2760	2784	2800	2552
16	2772	2768	2784	2792	2356
17	2772	2772	2700	2804	2568
18	2788	2764	2812	2788	2748
19	2800	2796	2832	2840	2832
20	2804	2804	2836	2848	2748
21	2708	2304	2844	2440	2588
22	2388	2220	2680	2244	2968
23	2044	2116	2676	2120	3684

Pokuru

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	1220	1524	1392	1664	1460
1	1184	1536	1416	1664	1432
2	1220	1520	1488	1584	1408
3	1224	1496	1488	1456	1384
4	1260	1376	1412	1600	1380
5	1260	1256	1456	1696	1360
6	1008	1296	1332	1696	1384
7	1204	1552	1388	1688	1420
8	1340	1384	1408	1664	1456
9	1376	924	964	1072	1452
10	1380	932	972	916	1428
11	1060	936	968	924	1148
12	980	936	972	932	968
13	980	940	976	924	960
14	980	944	976	1660	972
15	980	944	980	1764	956
16	980	980	980	1648	1088
17	1716	1668	1448	1648	2008
18	1700	1620	1760	1592	1664
19	1624	1512	1736	1516	1400
20	1524	1512	1728	1576	1392
21	1404	1480	1688	1620	1344
22	1368	1520	1664	1624	1332
23	1304	1448	1648	1584	1324

Bertrand Road

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	3950	3868	3861	3828	3678
1	3836	3797	3809	3735	3678
2	3757	3818	3799	3764	3683
3	3789	3835	3793	3756	3704
4	3801	3840	3779	3734	3692
5	3803	3845	3762	3702	3685
6	3833	3810	3748	3737	3652
7	3922	3811	3757	3737	3646
8	3977	3823	3748	3744	3645
9	3937	3772	3752	3750	3655
10	3903	3792	3748	3774	3628
11	3918	3811	3787	3788	3638
12	3924	3811	3805	3799	3646
13	3921	3833	3812	3791	3650
14	3943	3830	3866	3778	3637
15	4000	3831	3870	3777	3677
16	4050	3845	3891	3807	3674
17	4041	3854	3899	3781	3732
18	4040	3847	3897	3760	3724
19	4057	3854	3926	3769	3739
20	4052	3845	3924	3725	3745
21	4056	3840	3883	3729	3697
22	4051	3860	3918	3708	3731
23	3973	3850	3926	3729	3734

Frankley Road

Hour	16-Sep-19	17-Sep-19	18-Sep-19	19-Sep-19	20-Sep-19
0	1136	1289	1040	916	704
1	452	944	868	976	796
2	468	910	780	1004	956
3	312	841	580	1056	1012
4	312	463	288	524	592
5	644	500	748	844	900
6	1396	1096	1292	1488	1292
7	1672	1579	2012	1520	1984
8	1712	1390	2204	1476	2112
9	2168	1100	1816	1316	1456
10	2152	1032	1416	1432	1076
11	2152	1248	1576	2056	1072
12	1864	1160	1608	2272	1104
13	1820	1352	1680	2084	1092
14	1644	1296	1432	1852	1160
15	1916	1580	1848	2124	1156
16	1724	1596	1976	2052	872
17	1920	1484	1792	1268	1064
18	3261	1892	2240	2092	1236
19	3610	2376	2448	2324	1460
20	2422	2140	2452	1968	1288
21	1749	1756	1812	1404	1376
22	1461	1236	1940	1144	1404
23	1616	1192	1116	684	1196