



REGULATORY DISCLOSURE

Gas transmission services: Capacity allocation methodology and transmission system capacity reservations

Year ended 30 September 2020



Introduction

First Gas Limited (Firstgas) operates 2,500 kilometres of gas transmission pipelines (including the Maui pipeline), and more than 4,800 kilometres of gas distribution pipelines across the North Island. These gas infrastructure assets transport 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.

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

First Gas Limited is part of the Firstgas Group. The Firstgas Group owns energy infrastructure assets across New Zealand through our affiliate Gas Services NZ Limited (GSNZ), a separate business with common shareholders that owns Rockgas and the Ahuroa gas storage facility.

Rockgas has over 80 years' experience and provides LPG to 100,000 customers throughout New Zealand. It is New Zealand's largest LPG retail business and supplies its customers with LPG from both domestic and imported sources. Visit the website www.rockgas.co.nz. The Ahuroa gas storage facility (trading as Flexgas Limited) is New Zealand's only open access gas storage facility. Visit the website www.flexgas.co.nz.

Compliance statement

This document is a regulatory disclosure prepared pursuant to sections 2.5.3 and 2.5.4 of the *Gas Transmission Information Disclosure Determination (No. 1) 2017* consolidating all amendments as of 3 April 2018 issued by the Commerce Commission. The regulatory disclosure covers Firstgas' transmission business (both the Maui and Non-Maui transmission systems) for the 12-month period ending 30 September 2020.

The capacity allocation methodology and system capacity reservation information in this disclosure refers to the Non-Maui gas transmission system. The Maui transmission system is managed under the Maui Pipeline Operating Code (MPOC). The shippers on the Maui line nominate their requirements daily. This forms the capacity for that day. There is no forward commitment on a firm capacity basis and capacity is not reserved on the Maui transmission system.

This regulatory disclosure was prepared on 12 March 2021.

Further information

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1. Capacity allocation methodology

1.1 Current capacity allocation methodologies (clause 2.5.3(1)(a))

Firstgas currently provides two types of firm contractual transmission capacity to Shippers¹ - Reserved Capacity and Supplementary Capacity.

Reserved Capacity is Firstgas' standard capacity product, and is allocated in accordance with the relevant provisions of the Vector Transmission Code (the Code):

- (I) Prior to the start of each contract year² and
- (II) During each contract year

in response to Shippers' specific requests, to the limit of uncommitted operational capacity.³ The processes involved in (i) and (ii) above are separately described below. Under the current Code, a Shipper retains the right to use any Reserved Capacity allocated to it unless and until that Shipper relinquishes it.⁴

Supplementary Capacity is firm transmission capacity that Firstgas provides to a Shipper under a Supplementary Agreement, in compliance with specific provisions of the Code. Since Firstgas is under no obligation to provide Supplementary Capacity, the Reserved Capacity allocation process set out in the Code does not apply to Supplementary Capacity. Supplementary Capacity is available to a Shipper only for the term of the relevant Supplementary Agreement.

Reserved Capacity and Supplementary Capacity are equally "firm", so Firstgas must take both into account when determining uncommitted operational capacity.

1.1.1. Allocation of Reserved Capacity before the start of a contract year

Under the Code:

- 1) All Shippers must notify Firstgas of their Confirmed Reservation Requirements⁵ by 5pm on the second Friday in September.
- 2) A Shipper is entitled to reserve up to the amount of Reserved Capacity it holds at any Receipt-Point-Delivery Point⁶ (RP – DP) on the second Friday in September, although it may request more or less. A Shipper may request Reserved Capacity at a RP – DP irrespective of whether it currently has any capacity there.
- 3) Firstgas must notify Shippers of the extent to which it accepts their Confirmed Reservation Requirements by 5pm on the third Friday in September. This requires First Gas to determine the uncommitted operational capacity available, taking into account such things as:
 - (I) The amounts of Reserved Capacity requested compared with the amounts currently allocated;
 - (II) Changes in the distribution of Reserved Capacity, i.e. the extent to which requests for less Reserved Capacity at some RP-DPs offset requests for more at others
 - (III) Changes in Supplementary Capacity (if any)
 - (IV) How much capacity was allocated in prior years and where;

¹ A shipper is a person named in a transmission services agreement with First Gas. Only Shippers may hold transmission capacity. The Information Disclosure Determination refers to Shippers as "consumers".

² Being the year commencing on 1 October in year "n" and ending on 30 September in year "n+1".

³ Uncommitted operational capacity is the amount of a pipeline's physical capacity available to be allocated to Shippers, and is equal to: operational capacity – aggregate contractual (firm) capacity. The determination of operational capacity is described in Firstgas' "Gas Transmission Asset Management Plan – 2020" (AMP), available at www.firstgas.co.nz/About-Us/Regulatory/Transmission.

⁴ Either by not reserving it again, trading it to another Shipper or cancelling it in accordance with the Code.

⁵ Under the Code, Shippers must lodge non-binding Provisional Reservation Requirements earlier each year.

⁶ In this disclosure, Code terms are used, i.e.: Receipt Point = intake point; Delivery Point = offtake point.

- (V) The most recent pipeline modelling information, e.g. in the Asset Management Plan (AMP) and
 - (VI) The maximum capacity of individual Receipt and Delivery Points.
- 4) If it believes there is insufficient uncommitted operational capacity for it to approve all Shippers' requests for Reserved Capacity,⁷ Firstgas must apply the capacity allocation procedure set out in the Code. Briefly, that process would work as follows:
- (I) Any Shipper requesting the same amount of, or less Reserved Capacity than it currently holds at an RP-DP would be allocated that amount
 - (II) First Gas would then determine the extent of uncommitted operational capacity available by referencing the AMP or any other relevant pipeline modelling information or, if necessary, undertaking additional modelling
 - (III) First Gas would then allocate increased Reserved Capacity to the relevant Shippers in accordance with the following formula:

$$\text{increase} = (\text{Shipper's requested increase for an RP-DP} \div \text{All Shippers' requested increases for all RP-DPs on the pipeline}) \times \text{uncommitted operational capacity and}$$
 - (IV) Firstgas would then check that any allocated increases in Reserved Capacity could actually be delivered via the relevant Delivery Points.⁸ If not, capacity above the maximum that could be delivered would be re-allocated to other RP-DPs by a further iteration of the above formula.

1.1.2. Allocation of Reserved Capacity during a year

Under the Code:

- 1) A Shipper may request Reserved Capacity, or additional Reserved Capacity during a year, e.g., if it acquires new customers, or if one or more existing customers increase their load.
- 2) A Shipper must apply for additional Reserved Capacity using the appropriate screen on OATIS.⁹ Firstgas must approve (or decline) any such request via OATIS.
- 3) Firstgas must approve any such request (subject to the conditions set out in the Code) where it believes there is sufficient uncommitted operational capacity. To ascertain that, Firstgas considers:
 - (I) the relevant matters listed in paragraph (3) of the previous section; and
 - (II) any capacity transfer requests (to or from the RP-DP in question, or any other RP-DP relevant to the request) approved but not yet effective; and
 - (III) existing queued requests for capacity (if any).
- 4) Should it decline a request for additional capacity, Firstgas would (subject to the Code and the wishes of the Shipper concerned) place the request in the capacity queue for the relevant pipeline. If capacity subsequently became available, e.g., if a Shipper applied to cancel Reserved Capacity or to transfer Reserved Capacity elsewhere (including out of the pipeline altogether), Firstgas would offer additional Reserved Capacity to Shippers in the capacity queue, in accordance with the Code.

⁷ Namely, where Firstgas reasonably believed that a breach of its Security Standard (e.g. by the pressure at a critical point in a pipeline falling below the acceptable minimum) could result.

⁸ This would be necessary because a Shipper might request a "disproportionate" amount of additional capacity at the far end of a pipeline. The first pass of the allocation formula could then produce an unsustainable outcome. This reflects the reality that it is unrealistic to represent the uncommitted operational capacity of a pipeline by a single number: where capacity is required would change any such number

⁹ Firstgas' "Open Access Transmission Information System", at www.oatis.co.nz.

1.2 Approved requests for capacity (clause 2.5.3(1)(b))

During the disclosure year there was **sufficient uncommitted operational capacity** to meet all Shippers' requests for Reserved Capacity:

- (I) Confirmed Reservation Requirements for 2017-18: **approved** in full
- (II) Requests for additional Reserved Capacity: **124**
- (III) Requests for additional Reserved Capacity **approved in full: 124** and
- (IV) Requests for additional Reserved Capacity **approved in part: zero**.

1.3 Unmet demand for capacity (clause 2.5.3(1)(c))

During the disclosure year there was no unmet demand for Reserved Capacity:

- (I) Requests for Reserved Capacity **declined: zero**
- (II) Maximum daily quantities associated with requests **declined: zero** and
- (III) Reasons for requests not being approved in full: **not applicable**.

2. Transmission system capacity reservations

- 1) Tables 1 – 6 below set out the information required to be disclosed in accordance with clause 2.5.4 of the Information Disclosure Determination, for each of Firstgas' Non- Maui transmission pipeline systems.
- 2) The named offtake points (= Delivery Points) for each pipeline system are those which, in the system peak flow period, satisfied one or more of the criteria set out in clause 2.5.4(3)(a) – (c); i.e.:
 - (I) Throughput \geq 2,000 GJ
 - (II) Contractual firm capacity \geq 10,000 GJ (per day) or
 - (III) Nominal delivery pressure $>$ 20 bar gauge.

The relevant offtake points are those identified in Firstgas' "Pipeline Peak Flow Disclosure"¹⁰ for 2020. That disclosure refers to actual offtake points, whereas for commercial/contractual reasons some such points are aggregated into "notional" offtake points. An example is "Greater Auckland", which currently comprises 5 actual offtake points. Since this capacity disclosure is concerned with contractual capacity, Tables 1 – 6 show data for notional/contractual offtake points.

- 3) For all offtake points on a pipeline system that did not satisfy any of the criteria set out in clause 2.5.4(3)(a) – (c), data was aggregated in accordance with clause 2.5.4(3)(d) of the Information Disclosure Determination and appears in the tables on the line labelled "All Other Points".
- 4) Data is given for the three dates specified in clause 2.5.4(4), i.e.:
 - (I) The last day of the preceding pricing year (i.e., 30 September 2020);
 - (II) The first day of the new pricing year (i.e., 1 October of 2020); and
 - (III) The first day of each system's peak flow period for the preceding pricing year (i.e., the year ending 30 September 2020).
- 5) Firm contractual transmission capacity in respect of each offtake point comprises Reserved Capacity plus Supplementary Capacity (if any).
- 6) The MDQ (maximum daily quantity) and MHQ (maximum hourly quantity), respectively, for each offtake point correspond to the aggregate amount of firm contractual transmission capacity in each case. For Reserved Capacity, the MHQ is currently 1/16th of MDQ. For Supplementary Capacity, the MHQ can be a different fraction of MDQ, hence actual MHQs were obtained from the actual contracts.
- 7) MDQ and MHQ values have been rounded up to the nearest GJ.

¹⁰ Available at www.firstgas.co.nz/About-Us/Regulatory/Transmission.

TABLE 1: North system

Offtake Point	Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:				
		30-Sep-2020	1-Oct-2020	3-Jul-2020	> 20 bar g
Harrisville 2	MDQ	1,453	1,103	1,453	
	MHQ	91	69	91	
Drury 1	MDQ	669	846	669	
	MHQ	42	53	42	
Hunua (all)	MDQ	1,513	1,143	1,513	Note 1
	MHQ	95	71	95	
Flat Bush	MDQ	1,584	1,588	1,584	
	MHQ	99	99	99	
Greater Auckland	MDQ	38,870	45,583	43,030	Note 2
	MHQ	2,684	3,334	3,152	
Marsden 1	MDQ	13,600	11,040	14,800	21.0 bar g
	MHQ	850	690	925	
Kauri DF	MDQ	2,600	2,600	1,300	
	MHQ	130	130	65	
Waitoki	MDQ	586	873	586	
	MHQ	37	55	37	
Glenbrook	MDQ	6,379	6,250	7,100	
	MHQ	-	-	-	
Warkworth	MDQ	1,555	1,568	1,555	
	MHQ	97	98	97	
Tuakau 2	MDQ	3,270	4,977	3,622	
	MHQ	204	311	226	
Whangarei	MDQ	388	525	428	
	MHQ	24	32	26	
Maungaturoto DF	MDQ	2,400	2,400	1,200	Note 3
	MHQ	120	120	60	
Major Points	MDQ	74,868	80,495	78,840	
	MHQ	4,472	5,062	4,915	
All Other Points	MDQ	612	572	612	
	MHQ	101	98	70	

Total	MDQ	75,480	81,067	79,452
	MHQ	4,573	5,160	4,984
Note 1:	Hunua (all) includes the Hunua, Hunua (Nova) and Hunua 3 Delivery Points. At Hunua 3 Firstgas delivers gas at pipeline pressure (ie unregulated)			
Note 2:	Greater Auckland is a notional Delivery Point, comprising the actual Westfield, Papakura, Bruce McLaren, Waikumete and Henderson Delivery Points			
Note 3:	Transmission capacity is provided to Kauri DF and Maungaturoto DF under a single non-standard agreement. The MDQ for the 2 Delivery Points varies seasonally between 2,500 and 5,000 GJ. The MHQ at either Delivery Point is limited to 130 GJ			

Table 2: Central north system

Offtake Point	Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:				
		30-Sep-2020	1-Oct-2020	11-Sep-2020	> 20 bar g
Greater Hamilton	MDQ	5,138	6,336	5,138	Note 1
	MHQ	321	396	321	
Tatuanui DF	MDQ	1,500	1,500	1,500	
	MHQ	94	94	94	
Waitoa	MDQ	1,143	1,199	1,143	
	MHQ	71	75	71	
Cambridge	MDQ	1,947	2,174	1,947	
	MHQ	122	136	122	
Kiwitahi 1 (Peroxide)	MDQ	1,000	1,000	1,000	
	MHQ	63	63	63	
Te Rapa Cogen	MDQ	23,200	23,200	23,200	22.5 bar g
	MHQ	1,092	1,092	1,092	
Morrinsville DF	MDQ	300	1,000	300	
	MHQ	19	63	19	
Major Points	MDQ	34,228	36,409	34,228	
	MHQ	1,781	1,918	1,781	
All Other Points	MDQ	2,929	1,697	2,929	
	MHQ	183	106	183	
TOTAL SYSTEM	MDQ	37,156	38,106	37,156	
	MHQ	1,964	2,024	1,964	
Note 1:	Greater Hamilton is a notional Delivery Point, comprising the actual Hamilton (Te Kowhai) and Hamilton (Temple View) Delivery Points				

Table 3: Central south system

Offtake Point		Aggregate Firm Contractual Transmission Capacity GJ Held by All Shippers (on:				
		30-Sep-2020	1-Oct-2020	31-Jan-2020	> 20 bar g	
New Plymouth	MDQ	2,174	2,525	2,340	Note 1	
	MHQ	136	158	146		
Pokuru 2	MDQ	-	-	-		
	MHQ	-	-	-		
Major Points	MDQ	2,174	2,525	2,340		
	MHQ	136	158	146		
All Other Points	MDQ	1,190	1,384	1,212		
	MHQ	74	87	76		
TOTAL SYSTEM	MDQ	3,364	3,909	3,552		
	MHQ	210	244	222		
Note 1:	Pokuru refers to the Pokuru 2 Delivery Point					

Table 4: Bay of Plenty system

Offtake Point		Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:			
		30-Sep-2020	1-Oct-2020	25-Oct-2019	> 20 bar g
Lichfield DF	MDQ	1,785	1,900	1,850	
	MHQ	112	119	116	
Lichfield 2	MDQ	3,712	3,850	3,900	
	MHQ	232	241	244	
Edgecumbe DF	MDQ	4,517	4,597	4,647	
	MHQ	282	287	290	
Reporoa	MDQ	1,526	2,016	1,964	
	MHQ	95	126	123	
Whakatane	MDQ	3,619	3,647	3,631	
	MHQ	226	228	227	
Tirau DF	MDQ	853	1,450	1,200	
	MHQ	53	91	75	
Kinleith (Pulp & Paper) Kinleith (Pulp & Paper)	MDQ	-	-	-	
	MHQ	-	-	-	
Kawerau (Pulp & Paper) Kawerau (Pulp & Paper)	MDQ	1,840	1,680	1,200	
	MHQ	115	105	75	
Kawerau (Tissue) Kawerau (Tissue)	MDQ	640	580	640	
	MHQ	40	36	40	
Greater Tauranga	MDQ	952	1,458	910	Note 1
	MHQ	60	91	57	
Gisborne	MDQ	711	1,353	1,134	
	MHQ	44	85	71	
Greater Mt Maunganui	MDQ	2,316	2,783	2,329	Note 2
	MHQ	145	174	146	
Rotorua	MDQ	1,048	1,425	989	
	MHQ	65	89	62	
Major Points	MDQ	23,519	26,739	24,393	
	MHQ	1,470	1,671	1,525	
All Other Points	MDQ	13,199	13,693	14,365	
	MHQ	825	856	898	
TOTAL SYSTEM	MDQ	36,718	40,432	38,758	
	MHQ	2,295	2,527	2,422	
Offtake Point		Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:			
Note 1:	Greater Tauranga is a notional Delivery Point, comprising the actual Tauranga and Pyes Pa Delivery Points				
Note 2:	Greater Mt Maunganui is a notional Delivery Point, comprising the actual Mt Maunganui and Papamoa Delivery Points				

Table 5: South system

Offtake Point		Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:			
		30-Sep-2020	1-Oct-2020	3-Jul-2020	> 20 bar g
Paraparaumu	MDQ	-	-	-	
	MHQ	-	-	-	
Hawera (all)	MDQ	726	1,528	726	Note 1
	MHQ	45	96	45	
Wanganui	MDQ	3,681	4,361	4,081	
	MHQ	230	273	255	
Greater Kapiti	MDQ	401	892	401	Note 4
	MHQ	25	56	25	
Marton	MDQ	817	804	817	
	MHQ	51	50	51	
Palmerston North	MDQ	2,479	3,522	3,229	
	MHQ	155	220	202	
Longburn	MDQ	608	846	512	
	MHQ	38	53	32	
Levin	MDQ	733	1,034	773	
	MHQ	46	65	48	
Belmont	MDQ	3,963	5,169	5,347	
	MHQ	248	323	334	
Pahiatua DF	MDQ	3,760	3,300	866	
	MHQ	235	206	54	
Feilding	MDQ	645	868	865	
	MHQ	40	54	54	
Hastings (all)	MDQ	6,503	6,183	6,673	Note 2
	MHQ	406	386	417	
Tawa (A+B)	MDQ	7,645	8,863	8,873	
	MHQ	478	554	555	
Greater Waitangirua	MDQ	1,113	1,551	1,230	Note 3
	MHQ	70	97	77	
Major Points	MDQ	33,072	38,919	34,393	
	MHQ	2,067	2,432	2,150	
All Other Points					
	MDQ	1,873	2,098	1,956	
	MHQ	117	131	122	
TOTAL SYSTEM					
	MDQ	34,945	41,018	36,348	
	MHQ	2,184	2,564	2,272	
Note 1:	Hawera (all) refers to the Hawera and Hawera (Nova) Delivery Points				
Note 2:	Hastings (all) refers to the Hastings and Hastings (Nova) Delivery Points				

Note 3:	Greater Waitangirua is a notional Delivery Point, comprising the actual Waitangirua and Pauatahanui 1 Delivery Points
Note 4:	Greater Kapiti is a notional Delivery Point, comprising the actual Waikanae 2 and Paraparaumu. Effective 01/10/2019

Table 6: Frankley Road system

Offtake Point		Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:			
		30-Sep-2020	1-Oct-2020	17-Jul-2020	> 20 bar g
Frankley Road-Bi	MDQ	208,200	43,000	208,200	Note 1
	MHQ	10,410	2,150	10,410	
Kaimiro	MDQ	-	-	-	
	MHQ	-	-	-	
Stratford 2	MDQ	50,000	-	50,000	Note 2
	MHQ	2,500	-	2,500	
Ammonia-Urea	MDQ	-	-	-	Note 3 29 - 30 bar g
	MHQ	-	-	-	
Kapuni GTP	MDQ	25,000	25,000	25,000	39 bar g
	MHQ	1,250	1,250	1,250	
Stratford 3	MDQ	56,000	-	56,000	Note 4
	MHQ	2,333	-	2,333	
TCC	MDQ	64,000	-	64,000	Note 5
	MHQ	2,840	-	2,840	
Major Points	MDQ	403,200	68,000	403,200	
	MHQ	19,333	3,400	19,333	
All Other Points	MDQ	-	-	-	
	MHQ	-	-	-	
TOTAL SYSTEM	MDQ	403,200	68,000	403,200	
	MHQ	19,333	3,400	19,333	
Note 1:	The pressure at Frankley Road equals the pressure in the Maui Pipeline.				
Note 2:	Stratford 2 supplies the Stratford "peaker" power station. FGL delivers gas there at pipeline (ie unregulated) pressure				
Note 3:	Ammonia-Urea comprises the Ballance 8201 (fuel) and 9626 (process gas) Delivery Points.				
Note 4:	Stratford 3 is for gas going to the Ahuroa gas storage facility				
Note 5:	FGL delivers gas to the TCC at pipeline (ie unregulated) pressure				