REGULATORY DISCLOSURE

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

Year ended 30 September 2021

First Gas Limited
March 2022

Introduction

First Gas Limited (Firstgas) operates 2,500 kilometres of gas transmission pipelines and more than 4,900 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 66,000 consumers across the regions of Northland, Waikato, Central Plateau, Bay of Plenty, Gisborne, and Kapiti Coast.

Firstgas is part of the wider Firstgas Group. The Firstgas Group owns energy infrastructure assets across New Zealand through our affiliate Gas Services NZ Midco Limited (GSNZ Midco), a separate business with common shareholders that owns the Ahuroa gas storage facility and Rockgas. Under its gas services brand, GSNZ Midco provides operational and maintenance support to gas infrastructure owners, including other parts of the Firstgas Group.

The Ahuroa gas storage facility (trading as Flexgas) is New Zealand's only underground gas storage facility. Rockgas has over 80 years' experience providing LPG to over 100,000 customers throughout New Zealand. Rockgas is New Zealand's largest LPG retail business and supplies its customers with LPG from both domestic and imported services.

Firstgas is committed to helping Aotearoa achieve its climate change goal of zero carbon emissions by 2050. Our gas transmission and distribution networks are ideally placed to support the development, transfer, and use of emerging fuels such as hydrogen or biogas. For more information, visit our website: www.gasischanging.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 2012* 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 2021.

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 31 March 2022.

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 Shippers[1] - 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 year[2] 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 Requirements[5] 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 Point[6] (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;

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[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:

increase = (Shipper's requested increase for an RP-DP ÷ All Shippers' requested increases for all RP-DPs on the pipeline) × 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 2020-21: **approved in full**
(II) Requests for additional Reserved Capacity: **41**
(III) Requests for additional Reserved Capacity **approved in full: 41** 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 ≥ 2,000 GJ
   (II) Contractual firm capacity ≥ 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 2021. 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 2021);
   (II) The first day of the new pricing year (i.e., 1 October of 2021); and
   (III) The first day of each system's peak flow period for the preceding pricing year (i.e., the year ending 30 September 2021).

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 https://firstgas.co.nz/wp-content/uploads/Firstgas-GTB-disclosure-Peak-Flows_YE-30-Sept-2021-FINAL.pdf.

TABLE 1: North system

Offtake Point		Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:			
		30 Sep 2021	1 Oct 2021	13 Aug 2021	> 20 bar g
Harrisville 2	MDQ	1,755	1,556	1,482	
	MHQ	110	97	93	
Drury 1	MDQ	1,028	897	1,087	
	MHQ	64	56	68	
Hunua (all)	MDQ	738	846	738	Note 1
	MHQ	46	53	46	
Flat Bush	MDQ	1,588	1,603	1,588	
	MHQ	99	100	99	
Greater Auckland	MDQ	46,271	43,699	49,463	Note 2
	MHQ	2,892	2,731	3,091	
Marsden 1	MDQ	13,600	9,936	13,600	
	MHQ	850	621	850	
Kauri DF	MDQ	2,500	2,500	2,500	Note 3
	MHQ	130	130	130	
Waitoki	MDQ	888	880	888	
	MHQ	56	55	56	
Glenbrook	MDQ	6,314	6,235	6,764	
	MHQ	316	312	338	
Warkworth	MDQ	1,571	1,566	1,571	
	MHQ	93	93	93	
Tuakau 2	MDQ	2,146	2,596	1,296	
	MHQ	134	162	81	
Whangarei	MDQ	517	525	560	
	MHQ	32	33	35	
Maungaturoto DF	MDQ	2,500	2,500	2,500	Note 3
	MHQ	130	130	130	
Major Points	**MDQ**	**81,416**	**75,339**	**84,037**	
	MHQ	**4,952**	**4,573**	**5,110**	
All Other Points	MDQ	731	706	246	
	MHQ	98	97	68	
Total	**MDQ**	**82,148**	**76,045**	**84,283**	
	MHQ	**5,051**	**4,670**	**5,178**	

Note 1:	Hunua (all) includes the Hunua, Hunua (Nova) and Hunua 3 Delivery Points. At Hunua 3 Firstgas delivers gas at pipeline pressure (i.e., 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 2021	1 Oct 2021	13 Aug 2021	> 20 bar g
Greater Hamilton	MDQ	7,289	6,927	7,467	Note 1
	MHQ	456	433	467	
Tatuanui DF	MDQ	1,500	1,500	1,500	
	MHQ	94	94	94	
Waitoa	MDQ	1,568	1,668	1,568	
	MHQ	98	104	98	
Cambridge	MDQ	2,220	2,225	2,026	
	MHQ	139	139	127	
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	950	950	1,050	
	MHQ	59	59	66	
Major Points	**MDQ**	**37,726**	**37,471**	**37,810**	
	MHQ	**2,000**	**1,984**	**2,005**	
All Other Points	MDQ	1,748	1,696	1,748	
	MHQ	109	106	109	
TOTAL SYSTEM	**MDQ**	**39,474**	**39,167**	**39,558**	
	MHQ	**2,109**	**2,090**	**2,114**	
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 2021	1 Oct 2021	16 Jul 2021	> 20 bar g
New Plymouth	MDQ	3,432	3,013	3,712	
	MHQ	214	188	232	
Pokuru	MDQ	-	-	-	Note 1
	MHQ	-	-	-	
Major Points	**MDQ**	**3,432**	**3,013**	**3,712**	
	MHQ	**214**	**188**	**232**	
All Other Points	MDQ	1,434	1,489	1,494	
	MHQ	90	93	93	
TOTAL SYSTEM	**MDQ**	**4,866**	**4,502**	**5,206**	
	MHQ	**304**	**281**	**325**	
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 2021	1 Oct 2021	9 Oct 2020	> 20 bar g
Lichfield DF	MDQ	2,010	1,900	1,900	
	MHQ	126	119	119	
Lichfield 2	MDQ	3,854	3,850	3,850	
	MHQ	241	241	241	
Edgecumbe DF	MDQ	4,504	4,551	4,597	
	MHQ	281	284	287	
Reporoa	MDQ	2,061	1,908	2,016	
	MHQ	129	119	126	
Whakatane	MDQ	3,670	3,651	3,647	
	MHQ	193	192	191	
Tirau DF	MDQ	1,450	1,450	1,450	
	MHQ	91	91	91	
Kinleith (CHH Mill)	MDQ	12,015	9,990	11,207	
Kinleith (CHH Mill)	MHQ	751	624	700	
Kawerau (Tasman)	MDQ	1,624	1,661	1,680	
Kawerau (Tasman)	MHQ	102	104	105	
Kawerau (Caxton)	MDQ	716	707	530	
Kawerau (Caxton)	MHQ	45	44	33	
Greater Tauranga	MDQ	1,359	1,308	1,458	Note 1
	MHQ	85	82	91	
Gisborne	MDQ	1,398	1,704	1,353	
	MHQ	87	107	85	
Greater Mt Maunganui	MDQ	2,426	2,583	2,768	Note 2
	MHQ	152	161	173	
Rotorua	MDQ	1,591	1,586	1,425	
	MHQ	99	99	89	
Major Points	MDQ	38,678	36,849	37,881	
	MHQ	2,381	2,267	2,331	
All Other Points	MDQ	2,776	2,546	2,487	
	MHQ	174	159	155	
TOTAL SYSTEM	MDQ	**41,454**	**39,395**	**40,368**	
	MHQ	**2,554**	**2,426**	**2,487**	

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, Papamoa and Papamoa 2 Delivery Points.

Table 5: South system

Offtake Point		Aggregate Firm Contractual Transmission Capacity (GJ) Held by All Shippers on:			
		30 Sep 2021	1 Oct 2021	17 Sep 2021	> 20 bar g
Paraparaumu	MDQ	-	-	-	
	MHQ	-	-	-	
Hawera (all)	MDQ	1,393	1,505	1,393	Note 1
	MHQ	87	94	87	
Wanganui	MDQ	4,725	4,335	4,725	
	MHQ	295	271	295	
Greater Kapiti	MDQ	897	905	897	Note 4
	MHQ	56	57	56	
Marton	MDQ	855	710	855	
	MHQ	53	44	53	
Palmerston North	MDQ	4,046	3,845	4,046	
	MHQ	253	240	253	
Longburn	MDQ	764	1,063	764	
	MHQ	48	66	48	
Levin	MDQ	1,087	979	1,087	
	MHQ	68	61	68	
Belmont	MDQ	6,154	5,426	6,154	
	MHQ	385	339	385	
Pahiatua DF	MDQ	3,300	3,300	3,205	
	MHQ	206	206	200	
Feilding	MDQ	996	886	996	
	MHQ	62	55	62	
Hastings (all)	MDQ	6,363	7,821	6,363	Note 2
	MHQ	398	489	398	
Tawa (A+B)	MDQ	11,281	10,800	11,281	
	MHQ	705	675	705	
Greater Waitangirua	MDQ	2,055	1,743	2,055	Note 3
	MHQ	128	109	128	
Major Points	MDQ	**43,918**	**43,318**	**43,822**	
	MHQ	**2,745**	**2,707**	**2,739**	
All Other Points	MDQ	2,008	2,092	2,018	
	MHQ	126	131	126	
TOTAL SYSTEM	MDQ	45,926	45,410	45,840	
	MHQ	2,870	2,838	2,865	

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 Waitiangirua 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-2021	1-Oct-2021	17-Jul-2021	> 20 bar g
Frankley Road-Bi	MDQ	43,000	49,700	43,000	Note 1
	MHQ	2,150	2,485	2,150	
Kapuni GTP	MDQ	25,000	25,000	25,000	39 bar g
	MHQ	1,250	1,250	1,250	
Major Points	MDQ	68,000	74,700	68,000	
	MHQ	3,400	3,735	3,400	
All Other Points	MDQ	-	-	-	
	MHQ	-	-	-	
TOTAL SYSTEM	MDQ	**68,000**	**74,700**	**68,000**	
	MHQ	**3,400**	**3,735**	**3,400**	
Note 1:	The pressure at Frankley Road equals the pressure in the Maui Pipeline.				