

D+1 file formats specification

Version control

Version	Date	Comments
1.0	17 October 2018	First draft

Purpose

This document outlines the format and contents of the files that are routinely sent to and from the D+1 allocation model. For details of how the files are used/created, refer to the [D+1 Business Rules](#).

Summary of inputs

The D+1 model relies on the receipt of several regular data inputs. The D+1 Business Rules set out the extent to which the model can run without these inputs, and when the model will estimate missing data.

File	Source	Frequency	Method
Gas gate injection data (DDRs)	OATIS	On demand	Web services
Gas allocation data (GAR180/GAR190/GAR090)	Allocation agent	Monthly (GAR090 annually)	Manual download from allocation agent website
ICP data (RSICPATTS/RSICPATTL)	Gas registry	Daily	SFTP
TOU telemetry data	AMS, retailers	Daily	SFTP (GIEP exchange)

Some ad hoc D+1 inputs have no defined file format and are notified via email, such as:

- customer shutdown profiles
- new or modified retailer/shipper codes
- changes to TSA or SA contract IDs
- early notification of TOU switches

Summary of outputs

The D+1 model produces several reports after each allocation, plus a series of month-end reports which collate the official runs produced throughout the month. The D+1 reports only cover allocated gas gates, they do not include volumes for direct connect gas gates.

File	Contents	Frequency	Method
DP1SUMM	Pipeline level allocated quantities by retailer for BOP, MAUI, NORTH and SKF	Twice daily (once per allocation run)	GIEP exchange
DP1GATE	Gas gate level allocated quantities by retailer		
DP1DETA	ICP level allocated quantities for TOU ICPs, mass market residual quantities per pool and mass market allocations per retailer and pool		
DP1DCLO	Direct connect supplier list (First Gas only)		
DP1REPO	Allocation run report (internal only)		
EOM	Collated official runs for the entire consumption period. Gas gate level allocations by shipper and contract ID. Each shipper receives its own allocations and First Gas receives data for all shippers.	Monthly	Email

Information exchange

The GIEP exchange provided by the gas registry operator, Jade, is the preferred method of exchanging D+1 files. The GIEP exchange is available to all gas registry participants (retailers, distributors, meter owners and transmission system owners).

If the GIEP exchange is unavailable, Gas Industry Co may accept or send files via email. Participants are expected to take responsibility for keeping their contact details up-to-date with the operations team at Gas Industry Co.

The end-of-month (EOM) allocation file, used by First Gas for transmission billing, is currently provided to the allocation agent, First Gas and shippers via email. It is not automated as we perform a manual checking process to verify that non-business days and other non-routine issues are correctly identified.

File naming convention

The file naming convention for the GIEP exchange is strictly enforced as it determines the routing of the file. Files that do not follow the format below are rejected by the GIEP exchange.

Component	Format	Description
Sender	Char 4	Code of sending participant
Utility Type	Char 1	'G' for gas
Recipient	Char 4	Code of recipient participant
File Type	Char 7	D+1 file type eg 'DP1SUMM'
Report Month	YYYYMM	Month the report was created
Report Run Date	YYYYMMDD	Date the report was created
Unique ID	Char 60	D+1 reports use the HHMM run time as a unique ID

Each component is separated by an underscore. For example:
GICX_G_GICX_DP1SUMM_201810_20181001_1115.csv

Input files

File format & content

Unlike the output files, the inputs are not standardised since they originate from a variety of sources. The file format, content and naming convention depend on the source and purpose of the input file:

- File format specifications for allocation agent reports (GAR180, GAR190, GAR090) are available [here](#). The document also sets out the OATIS DDR file format, which is equivalent to the GAS030 file format
- File format specifications for gas registry reports (RSICPATTL & RSICPATTTS) are contained in the gas registry functional specification, available [here](#)
- For ad hoc inputs such as customer shutdown profiles or new TOU site demand forecasts, there is no set format. Gas Industry Co will accept the information via email to allocations@gasindustry.co.nz as long it meets the requirements of the D+1 Business Rules
- The only file format not specified elsewhere is that used for the provision of TOU telemetry data. Retailers and/or meter owners providing daily telemetry data must conform with one of the formats below, which aggregate at either meter ID or ICP level

TOU telemetry data: ICP level file

This file is used by retailers to send TOU telemetry data that isn't supplied directly by the meter owner/telemetry owner. Retailers can send one file per ICP or, preferably, include all ICPs in a single file. Retailers typically send one file per day, before 11am.

Filename

XXXX_G_GICX_TOUDATA_YYYYMM_YYYYMMDD_HHMM.csv

Header row

"Shipper,Date-Time of submission,ICP,Date of consumption,Value"

Detail rows

Value	Meaning	Format/validation
Shipper	Retailer code	Four digit participant code
Date-time of submission	Date & time report was created	DD/MM/YYYY HH:MM:SS
ICP	ICP	Standard ICP format (no hyphen separating checksum)

Value	Meaning	Format/validation
Date of consumption	Record date	DD/MM/YYYY
Value	Consumption volume in gigajoules	Numerical (three decimal places)

TOU telemetry data: meter ID file

Gas Industry Co receives the majority of TOU telemetry data in a single zip file from AMS. The zip file contains individual CSV files – one file per meter ID – that follow the OATIS DDR file format. The zip file is sent twice daily, in the morning using unvalidated data and in the afternoon using validated data. On non-business days the afternoon file also contains unvalidated data.

In order for the data in this file to be used in the D+1 model, the meter owner or retailer must also supply a mapping of meter IDs to ICPs and notify Gas Industry Co of any changes.

Filenames

Morning file (unvalidated): XXXX_G_GICX_DMETUNV_YYYYMM_YYYYMMDD_HHMM.zip

Afternoon file (validated): XXXX_G_GICX_DMETVAL_YYYYMM_YYYYMMDD_HHMM.zip

Individual meter files: <Meter ID>.CSV

Header rows (1-9)

Row	Value
1	"Daily Delivery Report"
3	"MG ID:" <Meter ID>
4	"DP Name:" <Customer Name>
6-8	"24 hours to 2400 on, Metered Volume (cm),,,,,,Corrected Volume (scm),Calorific Value(MJ/scm),Delivered Energy (GJ)"
2,5,9	Blank

Detail rows (10-40)

The file contains a detail row for each day of the consumption month from the first of the month up to and including the day before the run date. All other rows are blank.

All values are ignored by the D+1 system except for the record date and delivered energy.

Value	Format/validation
Record date	DD/MM/YYYY
Metered Volume (cm)	Ignored (including four empty values between metered volume and corrected volume)
Corrected Volume (scm)	
Calorific Value (MJ/scm)	

Value	Format/validation
Delivered Energy (GJ)	Numerical (three decimal places)

Total row (45)

Row 45 contains totals of the detail rows:

"Totals",<Total Metered Volume>,,,,,<Total Corrected Volume>,,<Total Delivered Energy>

Output files

File content

The output files from each D+1 run contain allocation information at a daily level aggregated at either pool, gate or ICP level. Record dates in the files run from the first of the current month up to and including the day before the run date. For example, a file produced on the 20th of the month will contain allocation data from the 1st to the 19th.¹

For the first few days of the month, output files will also include record dates from the previous month. This will occur until the monthly D+1 model update process (loading of recent allocation agent data and refresh of regression coefficients) has been completed.

All daily files are CSV format. The month-end file for First Gas is in OATIS DDR format (a zip file containing an individual file for each delivery point). The month end-file provided to shippers is a flat file in either XLSX or CSV format.

Summary file (DP1SUMM)

This file contains D+1 allocations aggregated by retailer and pipeline/pool level allocated quantities for BOP, MAUI, NORTH and SKF

Filename

GICX_G_XXXX_DP1SUMM_YYYYMM_YYYYMMDD_HHMM.csv

Header row

"Record_date,Date_created,Pool,Shipper,Value"

Detail rows

Value	Meaning	Format/validation
Record_date	Date of gas flow	YYYY-MM-DD File includes all days in current month up to previous day
Date_created	Run date and run time	YYYY-MM-DD HH:MM:SS Date & time that the reported D+1 run commenced
Pool	Pipeline/BPP	BOP, MAUI, NORTH or SKF
Shipper	Retailer code	Four digit retailer code (except First Gas file which uses OATIS shipper code). Only Genesis codes are aggregated together. Shippers with multiple retailer codes can elect to have all retailer codes within a single file. Each shipper only sees their own allocations. GIC and First Gas see all shipper allocations
Value	Allocated gigajoules	Rounded to three decimal places

¹ First Gas reports are an exception, as they only contain records for the previous day.

Gate file (DP1GATE)

This file contains D+1 allocations aggregated at a retailer and gas gate level

Filename

GICX_G_XXXX_DP1GATE_YYYYMM_YYYYMMDD_HHMM.csv

Header row

"Record_date,Date_created,Gate,Shipper,Value"

Detail rows

Value	Meaning	Format/validation
Record_date	Date of gas flow	YYYY-MM-DD File includes all days in current month up to previous day (except First Gas file which is previous day only)
Date_created	Run date and run time	YYYY-MM-DD HH:MM:SS Date & time that the reported D+1 run commenced
Gate	Gas gate code	Codes are alphanumeric: three letters followed by five numbers. Values are the same as the allocated gas gate codes in the allocation system. These are equivalent to OATIS delivery point IDs except that Kihikihi delivery point is GTK19101 not KIH19101
Shipper	Retailer code	Four digit retailer code (except First Gas file which uses OATIS shipper code). Only Genesis codes are aggregated together. Shippers with multiple retailer codes can elect to have all retailer codes within a single file Each shipper only sees their own allocations. GIC and First Gas see all shipper allocations
Value	Allocated gigajoules	Rounded to three decimal places

Detail file (DP1DETA)

This file contains ICP level allocated quantities for TOU ICPs and their method of allocation for that run. It also includes mass market allocations per retailer per pool and the total mass market residual quantity per pool (total pool injections less total TOU allocations).

Filename

GICX_G_XXXX_DP1DETA_YYYYMM_YYYYMMDD_HHMM.csv

Header row

"Record_date,Date_created,Allocation_Type,Code,Gate,Method,Shipper,Value"

Detail rows

Value	Meaning	Format/validation
Record_date	Date of gas flow	YYYY-MM-DD

Value	Meaning	Format/validation
		File includes all days in current month up to previous day
Date_created	Run date and run time	YYYY-MM-DD HH:MM:SS Date & time that the reported D+1 run commenced
Allocation_Type	Distinguishes between ICP and mass market allocations	ICP – ICP level allocation (for TOU ICPs) MM – a retailer’s mass market allocation for a pool Residual – the total mass market allocation for a pool
Code	ICP identifier or pool	If Allocation_Type is 'ICP' then a 15-digit ICP identifier, otherwise the relevant pool: BOP, MAUI, NORTH or SKF
Gate	Gas gate code	If Allocation_Type is 'ICP' then the gas gate code for the ICP, otherwise 'NA' for Not Applicable
Method	Allocation method	If Allocation_Type is 'ICP' then: G1K – daily allocation is derived from telemetry data G1U – daily allocation is modelled for an ICP that normally has telemetry data available 2 – daily allocation is modelled for an ICP that does not normally have telemetry data available Otherwise, where Allocation_Type is 'MM' or 'Residual', the method is 'Modelled'
Shipper	Retailer code	If Allocation_Type is 'ICP' or 'MM', the four digit retailer code (not the OATIS shipper code). Only Genesis codes are aggregated together. If Allocation_Type is 'Residual' the shipper value is 'Total' Each shipper sees their own allocations and the 'Residual' total pool allocations. GIC and First Gas see all shipper allocations
Value	Allocated gigajoules	Rounded to three decimal places

Month-end file (EOM): First Gas

This file contains gate level allocated quantities for each shipper, aggregated by transmission contract ID. It is the file used by First Gas for transmission billing in OATIS.

Gas Industry Co relies on information provided by shippers, First Gas and the allocation agent to maintain an accurate and up-to-date mapping of:

- retailer codes and ICPs to contract IDs
- retailer codes to shipper IDs

Unless Gas Industry Co is notified of the existence of supplementary agreements/interruptible contracts, volumes will be allocated to shippers' default contract IDs.

Filename

<MonthName><YYYY>"MonthEndFiles".zip

Individual files: <OATIS Delivery Point ID>.csv

Header row

"Welded Point ID,Date,Shipper ID,Contract ID,Delivered Energy"

Detail rows

Value	Meaning	Format/validation
Welded Point ID	OATIS delivery point ID	Codes are alphanumeric: three letters followed by five numbers. Values are the same as the allocated gas gate codes in the allocation system, with the following exception: For this file the Kihikihi gas gate has the OATIS code KIH19101, not the allocation agent code GTK19101.
Date	Date of gas flow	DD/MM/YYYY
Shipper ID	OATIS shipper code	Four letter code determined by First Gas. Retailer codes are linked to shipper codes based on mapping table supplied by the allocation agent
Contract ID	OATIS contract identifier	Four digit code determined by First Gas. If Gas Industry Co isn't notified of new/amended supplementary (SA) or interruptible (IUC) contract IDs, then volumes will be allocated to the shipper's default contact ID
Delivered Energy	Allocated gigajoules	Rounded to three decimal places

Total row

"Total,Total,Total,\N,"<Total Delivered Energy>

Month-end file (EOM): Shipper

This shipper-specific file contains gate level allocated quantities aggregated by transmission contract ID. It is a flat file version of the First Gas month-end file, with each shipper receiving its own allocation results only.

Filename

YYYYMM "D+1" <Shipper ID>.xlsx

Header row

"Welded Point ID,Date,Shipper ID,Contract ID,Delivered Energy"

Detail rows

Value	Meaning	Format/validation
Welded Point ID	OATIS delivery point ID	Codes are alphanumeric: three letters followed by five numbers.

Value	Meaning	Format/validation
		Values are the same as the allocated gas gate codes in the allocation system, with the following exception: For this file the Kihikihi gas gate has the OATIS code KIH19101, not the allocation agent code GTK19101.
Date	Date of gas flow	DD/MM/YYYY
Shipper ID	OATIS shipper code	See mapping table above
Contract ID	OATIS contract identifier	Four digit code determined by First Gas. If Gas Industry Co isn't notified of new/amended supplementary (SA) or interruptible (IUC) contract IDs, then volumes will be allocated to the shipper's default contact ID
Delivered Energy	Allocated gigajoules	Rounded to three decimal places