



# **Terasen Gas CUSTOMER CHOICE Program**

## **Commodity Unbundling for Residential & Commercial Customers in B.C.**

### ***Marketer Flat File Interface Specifications***

The change from the previous version includes updates to the Reason Code Validation table and changes to the enrolment validation process

Author: Terasen Gas Inc  
Version: 7.0  
Issue Date: June 3, 2010

## Table of Contents

Table of Contents .....	2
<b>Executive Summary .....</b>	<b>4</b>
<b>Reason Codes .....</b>	<b>6</b>
<b>Validation (Response) Codes .....</b>	<b>10</b>
Sample decode statement in PL/SQL (Oracle) .....	12
Sample decode statement in Transact SQL (SQL Server) .....	12
<b>Reason Code Failure Definitions.....</b>	<b>13</b>
<b>Interface Files .....</b>	<b>17</b>
<b>1. Customer Enrollment Request File &amp; Error Response File .....</b>	<b>18</b>
Specification .....	18
Purpose.....	18
Direction.....	18
Frequency .....	18
Timing .....	18
Security .....	20
File Processing and Archival .....	20
File Error Handling and Logging.....	20
Format.....	21
Record Layout Details - INT_GEM_NSS_ER_a .....	22
Sample Flat File.....	23
<b>2. &amp; 3. Customer Enrollment Response Files .....</b>	<b>24</b>
Specification .....	24
Purpose.....	24
Direction.....	25
Frequency .....	25
Timing .....	25
Security .....	25
File Processing and Archival .....	25
Format.....	25
Record Layout Details- INT_NSS_GEM_ER_d1 .....	26
Sample Flat File.....	28
Record Layout Details- INT_NSS_GEM_ER_d2 .....	30
Sample Flat File.....	32
<b>4. Customer Usage File .....</b>	<b>33</b>
Specification .....	33

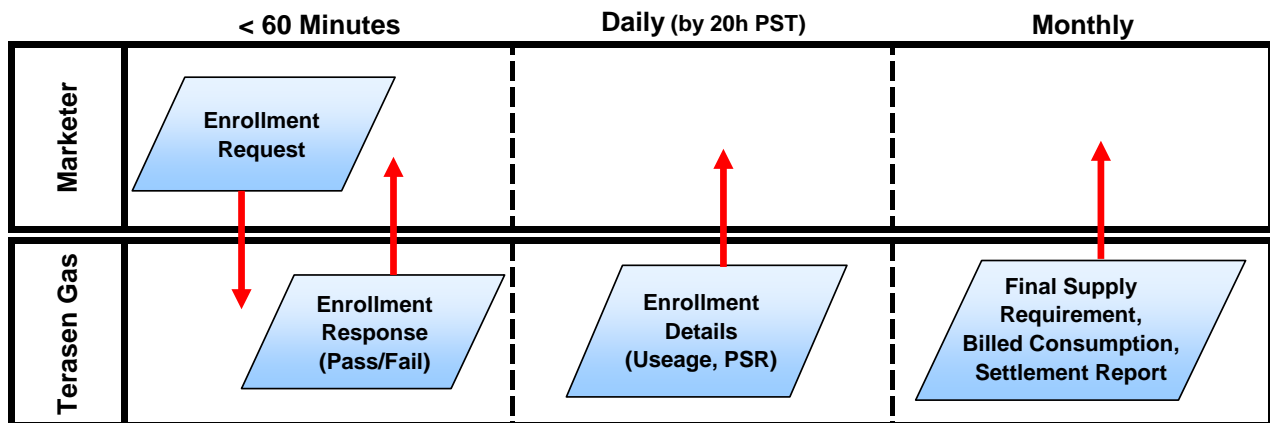
Purpose.....	33
Direction.....	33
Frequency.....	33
Security.....	34
File Processing and Archival.....	34
Format.....	34
Record Layout Details - INT_NSS_GEM_CU.....	35
Sample Flat File.....	37
<b>5. Enrollment Details File.....</b>	<b>38</b>
Specification.....	38
Purpose.....	38
Identifier.....	38
Type.....	38
Direction.....	38
Frequency.....	38
Security.....	38
File Processing and Archival.....	39
Format.....	39
Record Layout Details - INT_NSS_GEM_ED_a.....	40
Sample Flat File.....	43

## Executive Summary

Terasen Gas has initiated a Customer Choice Program that is available to certain residential and commercial customers served by the utility. Under the program, marketers will be allowed to enroll customers and provide commodity to Terasen Gas at specified delivery points for redelivery to the marketer's enrolled customers. Details regarding the Customer Choice Program are available from the Terasen Gas website.

The file specifications detailed in this document will allow a marketer to submit enrollment requests and receive enrollment responses, enrolled customer usage history, enrollment status and monthly consumption data. The follow chart illustrates the approximate frequency of when these files will be generated.

### Data Processing within GEM



All enrollment requests by marketers will be submitted in the file format set out in this specification to the Marketer Portal that is found at the Gateway for Energy Marketers (GEM) website. Access to this website is provided once a marketer submits a completed Rate Schedule 36 agreement to Terasen Gas.

A marketer initiates the enrollment process by submitting one file to Terasen Gas:

#### 1. Customer Enrollment Request File: INT\_GEM\_NSS\_ER\_a\_YYYYMMDD\_hhmmss.TXT

- This file is only generated by a marketer when they want to submit an enrollment request or to change the status of a current enrollment.
- Marketers may submit this file with any name provided it ends in .TXT.
- The name of the response file created by Terasen Gas will be in the format set out in 1 above.

Up to five different response files will be generated by an enrollment request submitted by a marketer for processing by Terasen Gas. These files are:

**1. Enrollment Error File: ERROR-LINE-X- INT\_GEM\_NSS\_ER\_a\_YYYYMMDD\_hhmmss.TXT**

- This file is only generated in response to a Customer Enrollment Request file that is submitted with a formatting error. It will identify the first record in the original file with a formatting error. Marketers need to correct this error and resubmit the Customer Enrollment Request file. This process will be repeated for each formatting error found in the Customer Enrollment Request file. Marketers should correct any similar formatting error for each enrollment record before attempting to resubmit the file for processing.

**2. Customer Enrollment Response File 1:**

- **INT\_NSS\_GEM\_ER\_d1\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT**
- This file will be produced in response to the Customer Enrollment Request file and will indicate which enrollment requests were accepted and which were rejected.

**3. Customer Enrollment Response File 2:**

- **INT\_NSS\_GEM\_ER\_d2\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT**
- This file will be produced in response to any accepted enrollment request and will provide a 24 month consumption history for the customer at the premise enrolled into the program. The monthly history will be based on the amount billed to that customer and will be provided in up to 24 separate records in this file.

**4. Customer Usage File:**

- **INT\_NSS\_GEM\_CU\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT**
- This file will be produced monthly and provide the consumption amount billed to the customer in the previous month (billing period).

**5. Enrollment Details File:**

- **INT\_NSS\_GEM\_ED\_a\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT**
- This file is produced daily and contains a cumulative history for each successful enrollment.

## Reason Codes

The commercial only unbundling program at Terasen Gas supported basically two types of transactions, enrollments and drops. The new implementation of the systems supporting the Customer Choice program has been extended to include a wide variety of “reason codes” that replace the simple “E” or “D” codes used in the previous system.

Although marketers effectively provide enrollment and drop transactions, the enhanced reason codes will provide marketers with much more detail regarding when and more importantly, why, a customer was enrolled or dropped due to customer status changes (ie: customer finalized, was moved to a new premise and was “ported” to that new location). Once an enrollment request is accepted the reason code for that transaction may not be changed. For example, a standard enrollment may not be changed to a standard enrollment with evergreen once the standard enrollment is accepted for processing.

There are only a few transactions that a marketer can submit where enrollment reason codes will be used. The remainders are system-generated or manual entries by the Terasen Gas Program Analysts. The following reason codes are for a marketer to use when submitting an enrollment request via GEM:

1. **Standard Enrollment (1110)** – 1 to 5 year consumer agreement that **does not** include a consumer agreement evergreen provision, when the 1 to 5 year consumer agreement term expires; the marketer will receive an Enrollment (End of Consumer agreement) Expire Drop (2320) if this enrollment reason code is used when the consumer agreement for that customer expires.
2. **Standard Enrollment with Evergreen (1130)** – 1 to 5 year consumer agreement that **includes** a consumer agreement evergreen provision. If Terasen Gas does not receive a Marketer Non Renewal (Evergreen) Cancellation (3320) before the entry deadline of the term end (end of the 1 to 5 year term), or the customer does not decide to switch marketers, the consumer agreement will be automatically renewed using an Evergreen Enrollment (1320) reason code. An Enrollment (end of contract) Expire Drop (2320) will be system generated at the end of the contract.

An Evergreen Enrollment automatically re-enrolls the customer in the same consumer agreement with the same rate for an additional 12 months. The same process will be repeated for the evergreen extension as long as Terasen Gas does not receive an evergreen cancellation (3320) from the marketer, or the customer does not sign a new consumer agreement with the same or a new marketer.

**Marketers are to contact customers 90 days prior to the contract end date to give them the option to end the contract before roll-over. The customer then has 30 days after receipt to select renewal terms or cancel.**

3. **Batch Enrollment (1210)** – allows marketers to submit standard enrollment transactions in a series covering 1 to 5 years. Batch enrollments allow marketers to submit multiple requests for the same customer/premise with “stepped” rates across multiple years. Each record in the “batch” must be in anniversary date intervals with the total period being no more than 5 years. For example, a marketer could submit two enrollment records in a batch, the first for two years at a \$6.00 marketer group, and then a 3 year (starting at the end date of the first enrollment record) for two more years at \$6.50. All batch records are effectively treated as a single enrollment and

will appear on the same Confirmation Letter. If a customer cools off and elects to cancel one or more consumer agreement in the batch, the system will cancel all of the requests in the batch.

In order for Terasen Gas to process this type of enrollment in a batch, a marketer must submit all batched transactions with the same marketer consumer agreement, customer (debtor) number, premise number, batch ID, and must be submitted in the same file in order to be considered a batch.

A batch request that is submitted in different files would have the transactions in each file treated as their own batch and not part of the overall group.

4. **Batch Enrollment with Evergreen (1230)** – similar to 3 above but the last enrollment in the batch will automatically be evergreened if no 3320 request (Marketer Non Renewal (evergreen) cancellation is received, or if the customer does not decide to switch marketer.
5. **Marketer Cancellation Period Drop (2110)** – allows marketers to submit a cancellation drop for 10 days (plus 2) after the enrollment request is received by Terasen Gas. Cancellation drops are available only for residential customers.

Marketers must hold commercial customers until the 10 day cancellation period ends before submitting them to Terasen Gas for processing.

6. **Marketer 12 Month Anniversary Drop (2130)** – allows a marketer to submit an enrollment drop at one of the 12 month anniversary dates from the start date of the consumer agreement. Anniversary drop requests must be submitted 30 days or more prior to the anniversary date so that it is not counted in the final marketer supply requirement.

An anniversary drop can be submitted at any time provided it is submitted at least one month before an anniversary date. The system will search for the next anniversary date and that will be the date the consumer agreement is dropped. Once the anniversary drop is processed, marketers may submit a new 1 to 5 year consumer agreement. An anniversary drop can not be used in the final year of the contract. This code is also not to be used before gas flow date (contract start date).

7. **Operational Correction Drop (2410)** – allows a marketer to terminate an enrollment where the consumer agreement cancellation deadline has passed but before it is included in any final marketer supply requirement on the 13<sup>th</sup> of each calendar month. This reason code should only be used under extenuating circumstances (e.g, illness or out-of-town for the whole cancellation period) or to correct data processing errors. Enrollments should not be terminated after the 10 day consumer agreement cancellation period simply for missing the deadline, to mask violations of the code of conduct or as a means of avoiding legitimate dispute resolution fees.

8. **Marketer Non Renewal (Evergreen) Cancellation (3320)** – allows a marketer to end the automatic evergreening of a Standard Enrollment with Evergreen (1130) or a Batch Enrollment with Evergreen (1230) enrollment. This reason code is used only when responding to a request by a customer to ensure that a consumer agreement with the evergreen provision (1130) is terminated on consumer agreement expiry.

An Evergreen cancellation drop must be submitted at least one month before the consumer agreement expires. The term can be either the original consumer agreement or one of the subsequent one-year evergreen periods.

The following reason codes are manually entered by the Terasen Gas Program Analysts to correct user errors, system errors or billing errors.

1. Manual Enrollment Data Correction (1970) – This code is used to manually enroll a customer back on a marketer contract after they have been incorrectly dropped due to billing, system or user error.
2. Poaching Reversal Enrollment (1330) – This code is used to manually re-enrol a customer after a poaching drop (2330). The customer will have a portability move history and the system will not accept the 1970 manual enrollment due to effective dating. This code's validation is setup similar to the 1310 portability enrollment logic.
3. Manual Drop Data Correction (2970) – This code is used to manually drop a customer contract when they have been enrolled incorrectly on a marketer contract due to billing, system or user error.

The following table lists reason codes available for use by a marketer, Terasen Gas Program Analysts or by Terasen Gas' systems. It should be noted that the majority of the codes are for "system generated" events and are not available for use by marketers to process enrollments.

Reason Code Validation			Code Users			
			Marketers	Terasen Gas	BCUC	System
Interface File(s)	Code	Long Description				
INT_GEM_NS S_ER_a & INT_ED_NSS_ ER_c1 & INT_NSS_ED_ ER_b						
	1110	Standard Enrollment	x			
	1130	Standard Enrollment with Evergreen	x			
	1210	Batch Enrollment	x			
	1230	Batch Enrollment with Evergreen	x			
	1310	Portability Enrollment				x
	1320	Evergreen Enrollment (new 1 year enrollment as result of evergreen extension)				x
	1330	Poaching Reversal Enrollment		x		
	1510	Billing Consolidation Enrollment (customer enrollment transferred to new debtor number)				x
	1800	Dispute Resolution Enrollment			x	x
	1900	Conversion Enrollment			x	x
	1970	Terasen Manual Enrollment Data Correction		x		
	2110	Marketer Cancellation Period Drop	x			
	2310	Account Finalization Drop				x
	2130	Marketer 12 Month Anniversary Drop	x			
	2320	Enrollment (End of contract) Expire Drop				x
	2340	Terasen Reject of Rate 23 Enrollment (Terasen rejected request to move customer from rate 23)				x
	2350	Multiple Premise in Multiple Rate Classes (Single premise assigned services with multi rate class)				x
	2360	Invalid Region Rate class Drop (Customer rate class moved from 1,2, or 3)				x
	2410	Operational Correction Drop	x			
	2810	Dispute Resolution Drop			x	
	2820	Marketer Failure Drop				x
	2970	Terasen Manual Drop Data Correction		x		
	3320	Marketer Non-Renewal (Evergreen) Cancellation	x			
	9999	Phantom Enrollments (customers scheduled to be Evergreened but not yet confirmed)				x

The Customer Choice system is configured **not** to allow customers to initiate a marketer cancellation period drop or non-renewal cancellation by contacting the Terasen Gas call center. Any cancellation / non renewal transaction must be submitted by marketers to Terasen Gas using the “Marketer Non-Renewal Cancellation” and “Marketer Cancellation Period Drop” transactions.

## Validation (Response) Codes

As transactions are received and processed by Terasen Gas' systems, they will be validated and re-validated on an ongoing basis. Transactions that are valid will retain a zero (0) validation code. Transactions that have a non-zero validation code are deemed to be invalid and will not remain as 'active enrollments' in the systems.

Although the primary purpose of the validation codes is to provide marketers feedback as to why a transaction was rejected, there are certain system / customer events that can cause a customer to become "unenrolled" with a marketer (ie: customer moves, premise is reclassified to an ineligible region/rate class).

Because enrollments may fail for multiple reasons, a system of recording the reason codes in a way where multiple validation errors can be included in a single reason code was devised. SQL Server and Oracle functions required to calculate the response code and determining the embedded validation exceptions encountered is outlined below. Response codes are also accompanied with a text description of the validation failure reason(s) in the event that a marketer does not wish to employ the functions provided.

Validation codes sent in response to marketer or system requests utilize a binary math formula to allow multiple validation codes to be represented in a single validation response code. The response codes are built up by selecting 2 to the power of the Code (see below). The "value in response" (VIR Code) column in the table below represents that number as calculated. When multiple validation failures are found in a single request record, the VIR Codes are added to each other to provide a unique identifier for the combination of error codes.

For example, if a request file was submitted with an Invalid Entry Date (VIR Code 1) and an Invalid Consumer agreement Term (VIR Code 128), the Validation Failure Code that would be returned in the response file would be 129 ( $128 + 1$ ). If a similar request was submitted with these two errors plus an Invalid Marketer Group (VIR Code 4), the Validation Failure Code returned would be 133 ( $1 + 4 + 128$ ).

Sample Oracle and SQL Server scripts have been provided at the bottom of this section to decode the Validation Failure Code into the individual Codes that are associated with it.



CUSTOMER CHOICE Program  
Flat File Interface Specifications

Validated At	Validation	Code	Value in Response
NSS	Invalid Entry Date – Request is not for a valid entry date	0	1
NSS	Invalid Marketer Contract – Contract number doesn't match assigned marketer contract	1	2
NSS	Invalid Marketer Group – Marketer group not associated with submitting marketer	2	4
NSS	Invalid Contract Status – Only active marketer contracts	3	8
NSS	Invalid Submission Date – Missed entry date	4	16
NSS	Invalid Submission Account – Attempt to enroll/drop another marketers customer	5	32
NSS	Invalid Reason Code – Reason code not valid for submitting user	6	64
NSS	Invalid Contract Term – Not 1-5 years or doesn't start/end 1 <sup>st</sup> of month	7	128
NSS	Suspended Marketer – Attempted enrollment, only accept drops	8	256
NSS	Invalid Batch Enrollment – Contract dates not contiguous	9	512
NSS	Invalid Evergreen Drop Submission Date	10	1024
ED	Invalid Customer Enrollment ID	20	1048576
ED	Invalid Drop Request – Enrollment mismatch	21	2097152
ED	Not Current Enrollment	22	4194304
ED	Blocking Rule Violation	23	8388608
ED	Duplicate Request ID	24	16777216
ED	Batch Enrollment Error	25	33554432
ED	Invalid Customer	26	67108864
ED	Invalid Premise	27	134217728
ED	Invalid Service	28	268435456
ED	Invalid Customer at Premise	29	536870912
ED	Ineligible Region Rate Class	30	1073741824
ED	Multiple Rate Classes at Premise	31	2147483648
ED	Expired Cooling Off Period	32	4294967296
ED	Expired Evergreen Cancellation Date	33	8589934592
ED	Cooling Off Drop is not permitted (Commercial Customer)	34	17179869184
ED	No Action Applicable for Reason Code in Customer's Rate Class	35	34359738368
ED	Invalid Evergreen Drop – Customer enrolled w/o evergreen option	36	68719476736
ED	Invalid Operation Drop	37	137438953472
ED	Invalid Operation Drop – cancellation period still valid	38	412316860416
ED	5-Year Contracting Rule Violation	39	549755813888

To decode the responses via SQL Server and Oracle, the marketer should define a table with the description and codes per the table above. In the example decode statements, the table is called "nss\_validation\_code".

**NOTE: the resulting codes can be very large numbers. Tables and procedures utilized to manipulate them should have this data defined as BIGINT where a regular INT will not be large enough to capture the data.**

### ***Sample decode statement in PL/SQL (Oracle)***

```
SELECT DISTINCT
    vc.validation_code
FROM
    nss_validation_code vc
WHERE
    BITAND(vcode, power(2,vc.validation_code)) <> 0;
```

### ***Sample decode statement in Transact SQL (SQL Server)***

```
SELECT DISTINCT
    vc.validation_code
FROM
    nss_validation_code vc
WHERE
    @vcode & power(@two,vc.validation_code) <> 0
```

## Reason Code Failure Definitions

Code Message:		Business/System cause for validation failure:
0	Invalid Entry Date	Entry date submitted on enrollment/drop request is not a valid entry date defined in the Customer Choice Program.
1	Invalid Marketer Contract	Contract number supplied with request file is invalid for submitting marketer. Marketer may only submit requests for his own contract (associated with portal account). Some marketers may have two contracts with two portal accounts, requests under specific contracts MUST be submitted through the GEM account associated with that particular contract.
2	Invalid Marketer Group	Marketer group is invalid, closed, not effective yet, associated with a different marketer contract. Marketer group must be matched with the contract in the request file.
3	Invalid Contract Status	Marketer failure or new marketers who have a contract status of (P)ending or (T)erminated with Terasen will receive this code. Marketers are permitted to submit drop request while their contract is Pending but enrollment requests submitted under this contract status will be rejected. When a marketer contract is Terminated, all requests (both enrollment and drop) will be rejected with this validation code.
4	Invalid Submission Date	Request is received for a particular entry date after the applicable deadline for the transaction type has passed.
5	Invalid Submission Account	Request submitted with valid data (contract, marketer group, entry date) but received through a GEM account not belonging to the contract associated with the account.

6	Invalid Reason Code	Reason code used in a particular transaction a) doesn't exist or b) is not available to party submitting the request transaction. A number of reason codes exist but are only available to Terasen or the BCUC while other request types are available solely to Marketers. The system will reject any request where the submitting party isn't authorized to use that reason code, for nonexistent reason codes, no party is authorized to use them and receive this error code as well.
7	Invalid Contract Term	Contract Term is not between 1 and 5 years in 12 month increments.
8	Suspended Marketer - Only Accept Drops	Enrollment request received from a marketer whose contract is suspended.
9	Invalid Batch Enrollment Contract Dates	Similar to invalid contract term, batch enrollments must be sequential series of years between 1 and 5 years total, gaps in term or total number of years being less than 1 or more than 5 will cause this validation code.
10	Invalid Evergreen Drop Submission Date	Evergreen drop transaction was received after the deadline to receive such transactions.
11	Invalid Anniversary Drop Submission Date	Anniversary drop transaction was received on a date that would force the drop to be effective after the enrollment would have naturally expired. For example, the anniversary drop was received in the final year of the contract.
20	Invalid Customer Enrollment ID	Request (normally drop) was submitted with an enrollment ID that is not active or valid. Enrollment requests do not include enrollment ID which is generated by Terasen when an enrollment is accepted. Any future action (cooling off drop, evergreen option not to renew) transaction must include the enrollment ID returned with the original enrollment request.
21	Invalid Drop Request - Enrollment Mismatch	Enrollment ID is valid but not associated with the included marketer contract, marketer group, debtor or premise in the new request.
22	Not Current Enrollment	Drop request received for previously terminated (dropped or cancelled) enrollment.

23	Blocking Rule Violation	Request received for a debtor/premise whose contract would overlap with the requested term. Blocking applies to ANY enrollment, Marketer A to Marketer B, Marketer A group 1 to Marketer A group 2, Terasen Stable Rate Option to Marketer A, all will receive this validation code because all would violate the Terasen essential services model.
24	Duplicate Request ID	Primarily internal system error, one system sends request to another multiple times, original request will have the valid request ID's.
25	Batch Enrollment Error	Batch ID associated with multiple records in the request file is associated with multiple premises/debtors and cannot be processed as a group.
26	Invalid Customer	Customer (debtor) ID does not exist as a valid debtor in the Terasen systems.
27	Invalid Premise	Premise ID does not exist as a valid premise number in the Terasen systems.
28	Invalid Service	Primarily internal processing code, service associate with a Premise ID is invalid and should be considered the same as an invalid premise.
29	Invalid Customer at Premise	Valid customer (debtor) ID and a valid premise ID are submitted but the debtor is not active at the premise as of the effective date of the request.
30	Ineligible Region Rate Class	Regions / Rate Classes eligible for specific entry dates for customer choice. Ineligible regions such as all customers on Vancouver Island will receive this response. However, residential customers submitted for the Aug 1, 2007 entry date will also receive this error code since unbundling is not available to residential customers until the November entry date.
31	Multiple Rate Classes at Premise	Primarily an internal error, in the Terasen CIS system, there is a possibility to associate two different rate classes to two services associated with a single premise. Although business practices dictates that this should never be done, system limitations cannot be implemented too prevent it and when this situation is found, the following validation code is returned.

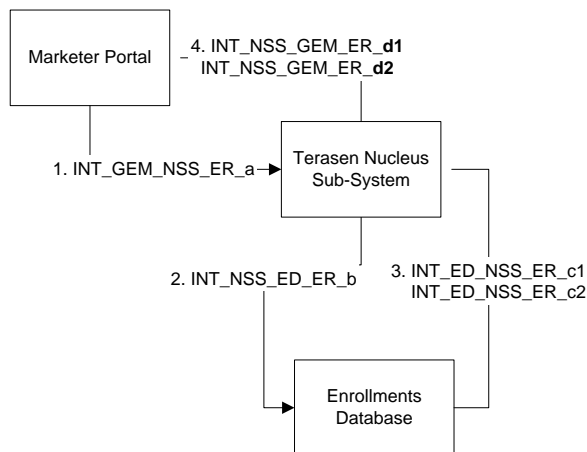
CUSTOMER CHOICE Program  
Flat File Interface Specifications

32	Expired Cooling Off Period	Cooling off drop is received after the cooling off deadline. Deployed as 11 days plus two "marketer grace period" days.
33	Expired Evergreen Cancellation Date	Evergreen cancellation is received after the deadline for receipt of such cancellations. Under the deployed configuration, this is the entry date deadline.
34	Cooling Off Drop Is Not Permitted	Cooling off drop request is received for a rate class that doesn't support cooling off drops. As deployed, only residential customers may be dropped for cooling off, any commercial customer enrollment receiving a cooling off drop request will receive this error.
35	No Action Applicable for Reason Code in Customer's Rate Class	Reason codes are associated with various actions for each rate class. This validation code is returned when a request is received with no associated action for the rate class currently enrolled.
36	Invalid Evergreen Drop - Evergreen Not Available	Evergreen drop transaction was received against an enrollment that is not evergreenable (wasn't originally enrolled with an evergreen option).
37	Invalid Operation Drop	The operation drop has been submitted outside the drop window which is before the 13 <sup>th</sup> of the month prior to gas flow date.
38	Invalid Operation Drop – Cancellation period still valid	The 10-day cancellation period is still in effect and therefore the operation drop is not applicable.
39	5 – Year Contracting Rule Violation	This validation code is returned when an enrollment is received that will cause the total sum of contract years to exceed 5 years.

## Interface Files

This section describes and defines the structure of the flat file prepared by marketers and Terasen Gas and posted on the Marketer Portal and processed by Terasen Gas. Marketers will send one customer enrollment request file type to Terasen Gas that triggers the generation of a number of enrollment response files that are sent back to marketers.

INT\_GEM\_NSS\_ER\_a is the first flat file specification of four specifications (INT\_GEM\_NSS\_ER\_a, INT\_NSS\_ED\_ER\_b, INT\_ED\_NSS\_c1, INT\_ED\_NSS\_c2 INT\_NSS\_GEM\_ER\_d1, INT\_NSS\_GEM\_ER\_d2) that will move the request from the Marketer Portal, to the Nucleus Sub-System, to Enrollments Database, a subsystem of Peace Energy, back to the Nucleus Sub-System and finally, back to the Marketer Portal. The following illustration shows how these files are linked.



The enrollment response files triggered by a marketer submitting the Customer Enrollment Request file will all be processed and posted on GEM prior to the start of daily processing in Terasen Gas' Energy CIS. Daily processing in the Energy CIS is scheduled to run each day at 21:00h PST.

Any enrollment request received while daily processing occurs will be held by the system until daily processing is completed. This means that any enrollment response files will generally be posted to GEM by 21:00h PST for enrollment requests received before daily processing starts. Any enrollment requests received after this time will result in response files being processed by the start of the next daily processing run on the following day.

Customer Enrollment Request files sent by marketers to Terasen Gas for processing will be time stamped based on the upload to GEM so that a file uploaded at 23:00h PST on GEM during daily processing will be time stamped 23:00h even though it won't be processed until the next calendar day. This means that the enrollment date will be the day that the file was received in GEM and not necessarily the date that it was processed.

The data presented in the various enrollment response files will not necessarily be in chronological order. Its assumed that this data will be added to a database and then queries run in order to extract required information. The Enrollment Details File includes sufficient fields that can be used to determine the proper sequence of a complete enrollment history.

# 1. Customer Enrollment Request File & Error Response File

<b>File Description:</b> Flat File Interface (FFI) for Customer Enrollment Request
--

## *Specification*

### **Purpose**

The Customer Enrollment Request file will be used by a marketer to enroll customers in the Customer Choice program. The Customer Enrollment Request files are uploaded to Terasen Gas' system via the Marketer Portal located at the Gateway for Energy Marketers (GEM) website. Each file will contain **one** to **n** number of enrollment request records. The Customer Enrollment Request file may contain requests for enrollments into different Marketer Groups. Data will be provided in ASCII text conforming to the interface file specification set out below.

### **Identifier**

INT\_GEM\_NSS\_ER\_a

### **Type**

Flat file

The proposed record structures are **PIPE DELIMITED** format where each field is separated by a PIPE character. Each record will terminate with Carriage Return/Line Feed record separators.

### **Direction**

The file will be created by marketers and posted to the Marketer Portal available at the "Transaction > Browse ... > Upload" tab.

### **Frequency**

Marketers may post enrollment requests at any time. A system check is performed to validate that the file was posted before the applicable deadline for enrollments for a particular entry date. There is no limit to the number of enrollment request files that can be posted to the portal in any time period.

### **Timing**

Enrollment requests will undergo a three phase validation process.

1. Each line in the Customer Enrollment Request file INT\_GEM\_NSS\_ER\_a\_[date]\_[timestamp].txt) will be validated to check whether the customer has an existing or future dated enrollment. If there is an existing valid enrollment, the file enrollment attempt will be rejected until the erroneous line items are removed from the Customer Enrollment Request file.

CUSTOMER CHOICE Program  
Flat File Interface Specifications

2. The flat file structure, entry date, marketer consumer agreement and marketer groups will be validated upon posting to the portal; then
3. The customer / premise eligibility or customer / premise / rate identification will be validated by the Enrolments Database.

When a file that contains customers that have existing or future dated enrollments is uploaded, the system will reject the upload file until those customers are removed. GEM will provide a table grid view to show the marketer which line(s) of the file contain duplicated enrollments (see Figure 1). The marketer will also receive an error file in the marketer inbox in the Download tab (see Figure 2). The marketer should remove the customers with "FAIL" in the record from the Customer Enrollment Request file before uploading the file again.

### Upload

To complete the customer enrollment process, select the pipe delimited file that adheres to the pre-defined file specification.

Click Browse to select the file, or type the path to the file in the box below.

Select File:

ERROR: The yellow highlighted rows are not available for enrollment. Please remove the rows and re-submit the file.

ContractNo	GroupCode	EnrollmentID	TrnID	BatchID	StartDate	EndDate	ReasonCode	CustomerName	DebtorNo	PremNo
10999UNBUNDLING	TER007	1095434	E19943	1000	20091201	20101201	1230	SHANE CHOW	2345678	181818
10999UNBUNDLING	TER023		E19938	1000	20091201	20101201	1230	MIGUEL VELOZ	2345678	181818
10999UNBUNDLING	TER020		E19945	1000	20101201	20141201	1230	JAMES DEAN	2345680	181820
10999UNBUNDLING	TER007		E19946	1000	20091201	20101201	1230	MIRD BRKIC	2345691	181821
10999UNBUNDLING	TER020	1095433	E19947	1000	20101201	20141201	1230	FUJI YAMA	2345692	181822
10999UNBUNDLING	TER022		E19952	1000	20091201	20101201	1110	DAVID LUDWIG	2345683	181823

Figure 1. Screen Print of GEM error message


GATEWAY HOME CONTACT US

News
Download
Transaction
Report
Dispute
Help

Enrollment Response
Enrollment Status
Customer Usage
Forms

### Enrollment Response

	File name	Date	Size
<input type="checkbox"/>	ERROR_UPLOAD_GEM Duplicate Enrollment_20100507_135716.txt	2010/05/07 02:58:33 PM	1KB

Figure 2. Screen print of error file in Enrollment Response screen

CUSTOMER CHOICE Program  
Flat File Interface Specifications

Open the upload file in notepad.exe or any text editor and remove the line errors manually. Figure 3 below shows how the file used in the previous example would look when it is first opened with Notepad. The marketer would need to remove the erroneous row(s) before uploading the enrollment file again. In the Figure 3 example file, those lines would be 2, 3, and 6. After removing the erroneous rows, the file should be saved and uploaded again. For those rows that were eliminated, no further processing would take place (since they would not exist in GEM), and no validation response would be received.

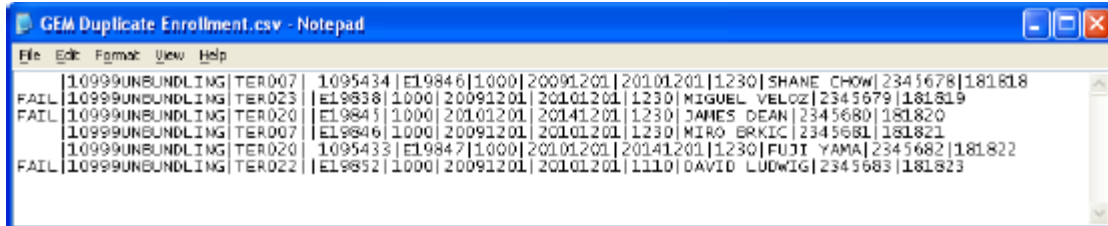


Figure 3. Screen Print of enrollment records identifying duplicates with FAIL in front of the record

Requests that fail the second and third validations will be returned to the portal generally within sixty minutes of their initial posting (See Customer Enrollment Response for details). For Customer Enrollment Request files failing the second validation, an Enrollment Error File is created that will be named: **ERROR-LINE-X- INT\_GEM\_NSS\_ER\_a\_YYYYMMDD\_hhmmss.TXT**

This file is only generated in response to a Customer Enrollment Request file that is submitted with a formatting error. It will identify the first record in the original file with a formatting error. Marketers need to correct this error and resubmit the Customer Enrollment Request file. This process will be repeated for each formatting error found in the Customer Enrollment Request file. Marketers should correct any similar formatting error for each enrollment record before attempting to resubmit the file for processing as a way of reducing the time required to complete the submission of enrollment requests for processing.

Once the third validation is completed, a number of Customer Enrollment Response files will be created that indicate which enrollment requests were accepted and which were rejected. Please see the next section for information about these files.

## Security

Files posted to the Marketer Portal will be posted using a Secure Socket Layer and stored in a secure location behind the Terasen Gas Firewall. Marketers MUST be logged into the portal under their own login ID to submit enrollment requests.

## File Processing and Archival

Most enrollment requests will undergo all validation and processing typically within one hour of posting to the portal. Large enrollment requests could take more time than this but are still expected to be processed within 60 minutes from receipt by Terasen Gas' systems. All enrollment requests will be archived on the Terasen Gas system.

## File Error Handling and Logging

All files posted to the Marketer Portal are marked with the posting date and time on the Terasen Gas server. The posting time will be displayed on the portal after successful posting of an enrollment file.



CUSTOMER CHOICE Program  
Flat File Interface Specifications

Enrollment requests that contain file format errors will be returned to the marketer via the Marketer Portal under the "Enrollment response" tab. Please see 2. & 3. Customer Enrollment Response for details.

## **Format**

The files can be named in any manner, but must end in **.TXT**.

### Record Layout Details - INT\_GEM\_NSS\_ER\_a

Field #	Field Name	Field format	Required	Comments
1.	Marketer Consumer agreement Number	VARCHAR(15)	Y	This is a unique consumer agreement number (combination of letters and strings) that is assigned by Terasen Gas when a marketer signs up for the Customer Choice Program. All interface files that marketers communicate with Terasen Gas use this consumer agreement number.
2.	Marketer Group Code	VARCHAR(6)	Y	Unique identifying code for a marketer group provided by Terasen Gas.
3.	Customer Enrollment ID	INT	N / Y	This ID is not required for new enrollments, <b>but is required for drops</b> . It is created by Terasen Gas and is used to relate the enrollment with the corresponding drop request.
4.	Marketer Transaction ID	VARCHAR(20)	N	This ID is provided by marketers to allow them to uniquely identify their enrollments and drop requests.
5.	Marketer Batch ID	INT	N	This ID is provided by marketers to allow them to group their enrollments and drop requests. This ID could be used to group related enrollment requests, for example, for tiered pricing structures the group of enrollment request could all have the same marketer batch ID.
6.	Customer Consumer agreement Start Date	DATE	Y	The date the consumer agreement starts as stated on the Consumer agreement between the Customer and the Marketer. This date is provided by the marketer. Format (YYYYMMDD), must be valid date to be accepted. All consumer agreements start on the 1 <sup>st</sup> of a month.
7.	Customer Consumer agreement End Date	DATE	Y	The date the consumer agreement ends as stated on the Consumer agreement between the Customer and the Marketer. This date is provided by the marketer.

Field #	Field Name	Field format	Required	Comments
				Format (YYYYMMDD), must be valid date to be accepted. All consumer agreements end on the 1 <sup>st</sup> of a month.
8.	Reason Code	INT	Y	Reason for transaction request.
9.	Customer Consumer agreement Signer Name	VARCHAR(35)	Y / N	The person (First and Last name) who signed the consumer agreement with the marketer. Not required for DROP requests.
10.	Debtor Number	INT	Y	The Terasen Gas account number / <i>Energy</i> Debtor number as it appears on the monthly bill sent to customers.
11.	Premise Number	INT	Y	The Terasen Gas premise number for the enrolled premise as it appears on the monthly bill sent to customers.

### Sample Flat File

**Note:** that the font has been reduced to keep the record format intact, if viewing the attached file in notepad, make sure you turn word wrapping off.

**Marketer Consumer agreement Number|Marketer Group Code|Customer Enrollment ID|Marketer Transaction ID|Marketer Batch ID|Customer Consumer agreement Start Date|Customer Consumer agreement End Date|Reason Code|Customer Consumer agreement Signer Name|Debtor Number|Premise Number**

**10000USD GS1234|ABC001||T-1||20071101|20081101|1110|John Smith|123456|999111  
10000USD GS1234|ABC001|112233|T-2||20071101|20081101|2110|John Smith|123456|999111**

\*\* Note: The pipe delimited format has extra space in the above sample for readability, actual formatting will not contain space before and after the pipe character.

## 2. & 3. Customer Enrollment Response Files

<b>File Description:</b> Flat File Interface (FFI) for Customer Enrollment Request
--

### *Specification*

#### **Purpose**

This section describes and defines the structure of the enrollment response flat files prepared by Terasen Gas and posted on the Marketer Portal in response to Customer Enrollment Requests. The enrollment response provides the marketer with a detailed response to each enrollment request transaction.

The enrollment response transaction has two main components. Successful enrollments will be returned with up to 24 months premise usage history for each premise enrolled. Unsuccessful enrollment requests will be returned with the rejection reason as described earlier in this document. Any enrollment request file that is received with errors in the file or data structure will be returned to the portal for correction by the marketer as described earlier.

Enrollment requests that do not contain formatting errors will be processed and trigger the production of one or two files in response.

#### **1. Customer Enrollment Response File 1:**

**INT\_NSS\_GEM\_ER\_d1\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT**

This file will be produced in response to the Customer Enrollment Request file and will indicate which enrollment requests were accepted and which were rejected.

#### **2. Customer Enrollment Response File 2:**

**INT\_NSS\_GEM\_ER\_d2\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT**

This file will be produced in response to any accepted enrollment request and will provide a 24 month consumption history in gigajoules (GJs) for the customer at the premise enrolled into the program. The monthly history will be based on the amount billed to that customer and will be provided in up to 24 separate records in this file. These records may not appear in chronological order.

#### **Identifier**

INT\_NSS\_GEM\_ER\_d1  
INT\_NSS\_GEM\_ER\_d2

#### **Type**

Flat file

The proposed record structures are **PIPE DELIMITED** format where each field is separated by a PIPE character. Each record will terminate with Carriage Return/Line Feed record separators.

## Direction

The enrollment response files will be created by Terasen Gas and posted to the Marketer Portal and will be available under the "Download > Enrollment Response" tab on the Marketer Portal.

## Frequency

One enrollment response (with accompanying usage history for successful enrollments) will be sent for each enrollment request received from the marketer.

## Timing

The first enrollment response file (INT\_NSS\_GEM\_ER\_d1) will confirm which enrollments were accepted and which ones were rejected. Each enrollment will include a reason code that helps to understand why an enrollment was rejected. Reasons could include an incorrect enrollment date (including enrollment deadline), an incorrect consumer agreement start and end date, or an incorrect marketer group. Most requests, especially those with a smaller number of enrollments, are expected to be processed within sixty minutes of the receipt of the enrollment request with confirmation posted on the Marketer Portal.

A full list of failed Validation Codes is provided earlier in this document.

The second enrollment response file (INT\_NSS\_GEM\_ER\_d2) is produced in response to any accepted enrollment request and will provide a 24 month consumption history in gigajoules (GJs) for the customer at the premise enrolled into the program. These files will be produced by the end of each day as part of evening processing for all successful enrollments processed that day.

## Security

Files posted to the Marketer Portal will be posted using a Secure Socket Layer and stored in a secure location behind the Terasen Gas Firewall. Marketers MUST be logged into the portal under their own login ID to download interface files from the Terasen Gas Marketer Portal.

## File Processing and Archival

Enrollment Response files will be posted to the Marketer Portal as they are produced. Marketers are expected to download and delete files from the portal as they see fit, however Enrollment Response files will be purged from the Marketer Portal 45 days after posting.

## Format

The files will be named in the following format:

```
INT_NSS_GEM_ER_d1_YYYYMMDD_hhmmss_GEMLoginID.TXT  
INT_NSS_GEM_ER_d2_YYYYMMDD_hhmmss_GEMLoginID.TXT
```

where YYYY is the year, MM is the month (01 = January, etc.), DD is the day of the month, hh is the hour (24 hour clock), mm is the minute and ss is the seconds.

### Record Layout Details- INT\_NSS\_GEM\_ER\_d1

Field #	Field Name	Field format	Required	Comments
1	Customer Enrolment ID	INT	Y	This ID is created by Terasen Gas to uniquely identify an enrollment in the system, and is used to relate the enrollment with the corresponding drop request.
2	Marketer Transaction ID	VARCHAR(20)	N	This ID is provided by marketers to allow them to identify and/or group their enrollments and drop requests. This ID could be used to group related enrollment requests, for example, for tiered pricing structures the group of enrollment request could all have the same Marketer Transaction ID.
3	Marketer Batch ID	INT	N	This ID is provided by marketers to allow them to group their enrollments and drop requests. This ID could be used to group related enrollment requests, for example, for tiered pricing structures the group of enrollment request could all have the same marketer batch ID.
4	Marketer Consumer agreement Number	VARCHAR(15)	Y	This is a unique consumer agreement number (combination of letters and strings) that is assigned by Terasen Gas when a marketer signs up for the Customer Choice Program. All interface files that marketers communicate with Terasen Gas use this consumer agreement

CUSTOMER CHOICE Program  
Flat File Interface Specifications

Field #	Field Name	Field format	Required	Comments
				number.
5	Marketer Group Code	VARCHAR(6)	Y	Unique identifying code for a Marketer Group provided by Terasen Gas
6	Customer Consumer agreement Start Date	Date	Y	The date the consumer agreement starts as stated on the Consumer agreement between the Customer and the Marketer. This date is provided by the marketer. Date format will be YYYYMMDD. i.e. 20031023. All consumer agreements start on the 1 <sup>st</sup> of a month.
7	Customer Consumer agreement End Date	Date	Y	The date the consumer agreement ends as stated on the Consumer agreement between the Customer and the Marketer. This date is provided by the marketer. Date format will be YYYYMMDD. i.e. 20031023. All consumer agreements end on the 1 <sup>st</sup> of a month.
8	Date Effective	Date	Y	The date the reason code submitted is effective. Format (YYYYMMDD), must be valid date to be accepted.
9	Transaction Request Date	DATE	Y	Date when a marketer submits request or the system generates a request. Format (YYYYMMDD), must be valid date to be accepted. This is the date that the marketer has initially uploaded the enrollment file. This is the date on which the cancellation period and confirmation letter is based.
10	Reason Code	INT	Y	Reason for transaction request.

Field #	Field Name	Field format	Required	Comments
11	Debtor Number	INT	Y	The Terasen Gas account number as it appears on the monthly bill sent to the customer.
12	Customer Consumer agreement Signer Name	VARCHAR(35)	Y	The person (First and Last name) who signed the consumer agreement with the marketer. This field will come from the marketer on the enrollment request. Not required for DROP requests.
13	Premise Number	INT	Y	The Terasen Gas premise number for the enrolled premise. Required for both enroll and drop transactions.
14	Validation Failure Code	BIGINT	Y	Validation failure result code. 0 if it passes all internal validations.
15	Validation Failure Reason	VARCHAR(4000)	Y	Validation failure reason description. This will be blank if it passes all internal validations.

### Sample Flat File

Below is an example of a row of data from the INT\_NSS\_GEM\_ER\_d1 flat file:

**Note:** that the font has been reduced to keep the record format intact, if viewing the attached file in notepad, make sure you turn word wrapping off.

**Customer Enrolment ID|Marketer Transaction ID|Marketer Batch ID|Marketer Consumer agreement Number|Marketer Group Code|Customer Consumer agreement Start Date|Customer Consumer agreement End Date|Date Effective|Transaction Request Date|Reason Code|Debtor Number|Customer Consumer agreement Signer Name|Premise Number|Validation Failure Code|Validation Failure Reason**

18029|T-1||10000USD GS1234|ABC001|20071101|20081101|20070317|20070317|1110|123456|John Smith|999111|0|Valid Request  
18030|T-1||10000USD GS1234|ABC001|20071101|20081101|20070317|20070317|1110|123456|John Smith|999111|4|Invalid Marketer Group



CUSTOMER CHOICE Program  
Flat File Interface Specifications

### Record Layout Details- INT\_NSS\_GEM\_ER\_d2

Field #	Field Name	Field format	Required	Comments
1	Customer Enrolment ID	INT	Y	This ID is created by Terasen Gas to uniquely identify the enrolment in the system, and is used to relate the enrollment with the corresponding drop request.
2	Marketer Transaction ID	VARCHAR(20)	Y	This ID is provided by marketers to allow them to identify and/or group their enrollments and drop requests. This ID could be used to group related enrollment requests, for example, for tiered pricing structures the group of enrollment request could all have the same Marketer Transaction ID.
3	Marketer Consumer agreement Number	VARCHAR(15)	Y	This is a unique consumer agreement number (combination of letters and strings) that is assigned by Terasen Gas when a marketer signs up for the Customer Choice Program. All interface files that marketers communicate with Terasen Gas use this consumer agreement number.
4	Marketer Group Code	VARCHAR(20)	Y	Unique identifying code for a Marketer Group provided by Terasen Gas.
5	Debtor Number	INT	Y	The Terasen Gas account number as it appears on the monthly bill sent to the customer.
6	Premise Number	INT	Y	Supplied by Terasen Gas' Energy CIS system.

CUSTOMER CHOICE Program  
Flat File Interface Specifications

Field #	Field Name	Field format	Required	Comments
7	Service Number	INT	Y	Terasen Gas' Energy CIS service number. Consumption information is stored at the service (meter) level in the Energy CIS and must be supplied at this level. It is very rare for a Terasen Gas premise to have more than 1 gas service but for the purposes of this extract this field will need to be provided. Marketers will need to sum consumption for multiple service premises to arrive at premise level consumption.
8	Read Date	Date	Y	Date that meter reading was taken.
9	Days	INT	Y	Number of days in reading period, i.e. between previous read date and current read date.
10	Consumption	Float	Y	This is the calculated consumption in gigajoules (GJ) for the meter reading. <b>Note:</b> Consumption will be aggregated, as necessary, to represent the total consumption amount that appears on a customer statement.

### ***Sample Flat File***

Below is an example of a row of data from the INT\_NSS\_GEM\_ER\_d2 flat file

**Note:** that the font has been reduced to keep the record format intact, if viewing the attached file in notepad, make sure you turn word wrapping off.

**Customer Enrolment ID|Marketer Transaction ID|Marketer Consumer agreement Number|Marketer Group Code|Debtor Number|Premise Number|Service Number|Read Date|Days|Consumption**

**17907|T-2|10000USD GS1234|ABC001|123456|999111|1|20070115|34|18.10**

## 4. Customer Usage File

<b>File Description:</b> Flat File Interface (FFI) for <i>Customer Usage Information</i>
--

### *Specification*

#### **Purpose**

This monthly file will provide details of customer billing (gas consumption) related to premises enrolled by a marketer. It will allow the marketer to monitor premise consumption as it is billed to the customers they are supplying.

The data in the file will be incremental and will only contain previously unreported consumption transactions for a premise, i.e. those that have occurred since the date the last file was produced. Prior period consumption reversal transactions will, however, be included in the incremental extracts for the period in which the reversal occurs. These records may not appear in chronological order.

#### **Identifier**

INT\_NSS\_GEM\_CU

#### **Type**

Flat File.

Structure of the flat file will be a **PIPE DELIMITED** format where each field is separated by a PIPE character. Each record will terminate with Carriage Return/Line Feed record separators

#### **Direction**

The Customer Usage files will be created by Terasen Gas and posted to the Marketer Portal. The files are available under the "Download > Customer Usage" tab on the Marketer Portal.

#### **Frequency**

Monthly, by customer cycle read date and posted by the end of the day as part of evening processing.

**Note:** Customer Entry Dates do not always coincide with Customer Billing Dates since Entry Dates are always on the first of each month and the Billing Date may be on any business day of the week. As a result, the flat file will only be sent to customers who have been with their marketer for at least 1 entire billing cycle. (E.g. If a customer has an Entry Date of Feb 1<sup>st</sup> and has a billing date of the 15<sup>th</sup> of every



CUSTOMER CHOICE Program  
Flat File Interface Specifications

month, their first bill will not be printed on Feb 15<sup>th</sup>. Their first bill will be printed on March 15<sup>th</sup>, after an entire cycle has passed.)

## **Security**

Files posted to the Marketer Portal will be posted using a Secure Socket Layer and stored in a secure location behind the Terasen Gas Firewall. Marketers MUST be logged into the portal under their own login ID to download interface files from the Terasen Gas Marketer Portal.

## **File Processing and Archival**

Billing Summary files will be posted to the Marketer Portal as they are produced. Marketers are expected to download and delete files from the portal as they see fit, however Billing Summary files will be purged from the Marketer Portal ninety days after posting.

## **Format**

The files will be named in the following format:

MARKETER\_CUSTOMER\_USAGE\_YYYYMMDD\_hhmmss\_GEMLoginIDTXT

Where YYYY is the year, MM is the month (01 = January, etc.), DD is the day of the month, hh is the hour (24 hour clock), mm is the minute and ss is the seconds

The file may contain more than 1 detail row for a single premise and / or customer.

### Record Layout Details - INT\_NSS\_GEM\_CU

Field #	Field Name	Field format	Required	Comments
1.	Customer Enrolment ID	INT	Y	This ID is created by Terasen Gas to uniquely identify the enrolment in their system, and is used to relate the enrollment with the corresponding drop request.
2.	Marketer Transaction ID	VARCHAR(20)	Y	This ID is provided by marketers to allow them to identify and/or group their enrollments and drop requests. This ID could be used to group related enrollment requests, for example, for tiered pricing structures the group of enrollment request could all have the same Marketer Transaction ID.
3.	Marketer Consumer agreement Number	VARCHAR(15)	Y	This is a unique consumer agreement number (combination of letters and strings) that is assigned by Terasen Gas when a marketer signs up for the Customer Choice Program. All interface files that marketers communicate with Terasen Gas use this consumer agreement number.
4.	Marketer Group Code	VARCHAR(6)	N	Marketer Group Code.
5.	Invoice Number	Integer	Y	Invoice Number as it appears on the customer's monthly bill.
6.	Service number	Integer	Y	Terasen Gas' Energy CIS service number. Consumption information is stored at the service (meter) level in CIS and must be supplied at this level. It is very rare for a Terasen Gas premise to have more than 1 gas service but for the purposes of this extract this field will need to be provided. Marketers will need to sum consumption for multiple service premises to arrive at premise level consumption.
7.	Invoice date	Date	Y	The date as it appears on the customer's monthly bill. Format CCYYMMDD.

CUSTOMER CHOICE Program  
Flat File Interface Specifications

Field #	Field Name	Field format	Required	Comments
8.	Consumption Start Date	Date	Y	Start of consumption for the invoice.
9.	Consumption End Date	Date	Y	End of consumption for the invoice.
10.	Consumption Quantity	Float	Y	Billed consumption in gigajoules (GJs) as it appears on the customer's monthly bill to 1 decimal place.  Eg. 407.9 or 3.0.
11.	Reversed flag	Char(1)		Identifies a reversed invoice. (Y)es or (N)o.
12.	Final Read Flag	Char(1)		Identifies a final reading. Flag will be set only if all services at the premise are finalized. (Y)es or (N)o.
13.	Debtor Number	INT	Y	The Terasen Gas account number as it appears on the customer's monthly bill.
14.	Premise Number	INT	Y	The Terasen Gas premise number for enrolled premise.

## ***Sample Flat File***

Below is an example of a row of data from the INT\_NSS\_GEM\_CU flat file:

**Note:** that the font has been reduced to keep the record format intact, if viewing the attached file in notepad, make sure you turn word wrapping off.

**Customer Enrolment ID|Marketer Transaction ID|Marketer Consumer agreement Number|Marketer Group Code|Invoice Number|Service Number|Invoice Date|Consumption Start Date|Consumption End Date|Consumption Quantity|Reversed Flag|Final Read Flag|Debtor Number|Premise Number**

**17910|T-2|10000USD**

**GS1234|ABC001|904114|1|20070215|20070115|20070214|18.10|Y|N|123456|99911**

## 5. Enrollment Details File

<b>File Description:</b> Flat File Interface (FFI) for <i>Details of Customer Premises Enrolled in Marketer Groups</i>
--

### **Specification**

#### **Purpose**

The enrollment details file will be cumulative and will produce data for all accepted enrollment and drop transactions each time it is run. It will show customers who have been enrolled in a marketer group along with the effective date of the enrollment (may be a past or future date) and the date on which a premise switched off a marketer group rate (may be a past or future date), whether through receipt of a drop transaction, or new enrollment transaction, or as a result of the customer being terminated (finalized) at the premise.

#### **Identifier**

INT\_NSS\_GEM\_ED\_a

#### **Type**

Flat file

Structure of the flat file will be a **PIPE DELIMITED** format where each field is separated by a PIPE character. Each record will terminate with Carriage Return/Line Feed record separators.

#### **Direction**

The enrollment details files will be created by Terasen Gas and posted to the Marketer Portal. The files will be available under the "Download > Enrollment Status" tab on the Marketer Portal.

#### **Frequency**

Once per day as part of evening processing.

#### **Security**

Files posted to the Marketer Portal will be posted using a Secure Socket Layer and stored in a secure location behind the Terasen Gas Firewall. Marketers **MUST** be logged into the portal under their own login ID to download interface files from the Terasen Gas Marketer Portal.

## **File Processing and Archival**

Enrollment Details files will be posted to the Marketer Portal daily. Marketers are expected to download and delete files from the portal as they see fit, however because Enrollment Details files are cumulative, files will be purged from the Marketer Portal each day and replaced with the updated file.

### **Format**

The files will be named in the following format:

INT\_NSS\_GEM\_ED\_a\_YYYYMMDD\_hhmmss\_GEMLoginID.TXT

Where YYYY is the year, MM is the month (01 = January, etc.), DD is the day of the month, hh is the hour (24 hour clock), mm is the minute and ss is the seconds

### Record Layout Details - INT\_NSS\_GEM\_ED\_a

Field #	Field Name	Field format	Required	Comments
1	Customer Enrolment ID	INT	Y	This ID is created by Terasen Gas to uniquely identify the enrollment in the system, and is used to relate the enrollment with the corresponding drop request.
2	Marketer Consumer agreement Number	INT	Y	This is a unique consumer agreement number (combination of letters and strings) that is assigned by Terasen Gas when a marketer signs up for the Customer Choice Program. All interface files that marketers communicate with Terasen Gas use this consumer agreement number.
3	Marketer Group Code	VARCHAR(6)	Y	Unique identifying code for a marketer group.
4	Debtor Number	INT	Y	Terasen Gas account number as it appears on the monthly bill sent to customers.
5	Debtor Surname	VARCHAR(30)	Y	Debtor surname. This will store the company name if the customer is a company.
6	Debtor First Name	VARCHAR(35)	N	Debtor first name. May be Null for Commercial customers.
7	Debtor Address 1	VARCHAR(255)	N	Flat, Apartment or Unit Number.  Note: this is a free form text field that may contain data from fields 7, 8, or 9.
8	Debtor Address 2	VARCHAR(255)	N	House or Building Number in Street.  Note: this is a free form text field that may contain data from fields 7, 8, or 9.

CUSTOMER CHOICE Program  
Flat File Interface Specifications

Field #	Field Name	Field format	Required	Comments
9	Debtor Address 3	VARCHAR(50)	N	Street Name, and City or Town Name.  Note: this is a free form text field that may contain data from fields 7, 8, or 9.
10	Debtor Postal Code	VARCHAR(10)	N	Postal Zone or Zip Code
11	Customer Consumer agreement Signer Name	VARCHAR(35)	Y	The person (First and Last name) who signed the consumer agreement with the marketer. This field will come from the marketer on the enrollment request.
12	Customer Consumer agreement Start Date	INT	Y	The date the consumer agreement starts as stated on the consumer agreement between the customer and the marketer. This date is submitted by the marketer with the initial enrollment request. This date is provided by the marketer. Date format will be YYYYMMDD. i.e. 20031023. All consumer agreements start on the 1 <sup>st</sup> of a month.
13	Customer Consumer agreement End Date	INT	Y	The date the consumer agreement ends as stated on the consumer agreement between the customer and the marketer. This date is submitted by the marketer with the initial enrollment request. Date format will be YYYYMMDD. i.e. 20031023. All consumer agreements end on the 1 <sup>st</sup> of a month.
14	Customer Enrollment Start Date	INT	Y	This is the date the enrollment under that marketer/group starts. Date format will be YYYYMMDD. i.e. 20031023. Externally this will be the date that the tariff

CUSTOMER CHOICE Program  
Flat File Interface Specifications

Field #	Field Name	Field format	Required	Comments
				starts to be billed on the premise.
15	Customer Enrollment End Date	INT	Y	This is the date the enrollment under that marketer/group ends. Date format will be YYYYMMDD. i.e. 20031023. Externally this will be the date that the tariff ceases to be billed on the premise.
16	Region	Char(2)	Y	Region where the customer's premise is located.
17	Rate Class	Char(3)	Y	Rate Class assigned to the enrolled customer.
18	Premise Number	INT	Y	Terasen Gas premise number for enrolled premise.
19	Premise Flat	VARCHAR(10)	Y	Premise Flat.
20	Premise House	VARCHAR(10)	Y	House Number.
21	Premise Street Name	VARCHAR(30)	Y	Street Name.
22	Premise Town Name	VARCHAR(20)	Y	City, Town Name.
23	Premise Postal Code	VARCHAR(10)	Y	Postal Zone or Zip Code.
24	Enrollment Reason Code	INT	Y	Reason Code for Enrollment.
25	Enrollment Reason Code Description	VARCHAR(50)	Y	Description of Reason Code for Enrollment.
26	Termination Response Code	INT	N	Reason Code for Drop.
27	Termination Response Code Description	VARCHAR(50)	N	Description of Reason Code for Drop.

## ***Sample Flat File***

Below is an example of a row of data from the INT\_NSS\_GEM\_ED\_a flat file:

**Note:** that the font has been reduced to keep the record format intact, if viewing the attached file in notepad, make sure you turn word wrapping off.

**Customer Enrolment ID|Marketer Consumer agreement Number|Marketer Group Code|Debtor Number|Debtor Surname|Debtor First Name|Debtor Address 1|Debtor Address 2|Debtor Address 3|Debtor Postal Code|Customer Consumer agreement Signer Name|Customer Consumer agreement Start Date|Customer Consumer agreement End Date|Customer Enrollment Start Date|Customer Enrollment End Date|Region|Rate Class|Premise Number|Premise Flat|Premise House|Premise Street Name|Premise Town Name|Premise Postal Code|Enrollment Reason Code|Enrollment Reason Code Short Description|Termination Reason Code|Termination Reason Code Short Description**

**17908|10000USD GS1234|ABC001|123456|SMITH|JOHN||||Jane  
Doe|20071101|20081101|20071101|20071012|IN|001|999111||123|MAIN STREET|VANCOUVER|V1V  
1L1|1110|SE|2110|MCD**