Gas
Networks
Ireland

Supplier User Guide
Pay As You Go Metering

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Introduction

Scope/Purpose

The purpose of this document is for Gas Networks Ireland (GNI) to provide suppliers of Pay as You Go customers with a comprehensive guide on the workings of the Pay as You Go functionality for the market.

The document is divided into three main sections:

- Customer aspect of Pay as You Go Metering

- Business aspect of Pay as You Go Metering

- Technical aspects of Pay as You Go Metering

The **Customer** section will provide suppliers with a guide on how a Pay as You Go customer interacts with the meter.

The **Business** section aims to give suppliers details on the key Pay as You Go market processes and the day to day workings of the Pay as You Go system.

The **Technical** section outlines in detail Pay as You Go metering functionality, file formats, reporting and data flows between the key Pay as You Go metering stakeholders.

Customer Aspects
of Pay As You Go Metering

1. Pay As You Go Customer

1.1 Pay As You Go Customer User Guide

GNI have a Pay as You Go customer guide that is given to each Pay as You Go customer upon installation of a meter. The guide is user friendly and customer focused, it provides information on purchasing credit, using your gas card, emergency credit and gas card issues.

It is also available at the following link on the GNI website:

https://www.gasnetworks.ie/home/gas-meter/prepay-meter/

Your Gas Card Meter

The diagram below illustrates your Pay as You Go Gas Card Meter.

Display & Index Screen

Button A | Card Slot

Displays are activated by pressing button A or by inserting a Gas Meter Card. The last display selected remains visible for 30 seconds. Your meter will display two information screens:

Credit screen

Press button A once to access the credit screen which shows the amount of credit remaining on the meter.

€13.82	ON

Owed screen

Press button A twice to access the owed screen which shows the arrears you owe for unpaid Emergency Credit and Service Charges.

€0.00	ON
OWED	

Your Gas Card

The Pay as You Go meter Gas Card is illustrated right. You will receive this with your meter. Please look after your Gas Card as you will be charged for a replacement. Replacement cards can be purchased at any Payzone Outlet. If you are using a replacement Gas Card, any previous cards will not work in the meter.

Refund: Unused credit on previous Gas Cards may be claimed by contacting your supplier.

Initialising your gas card

When you receive your new gas card or you purchase a replacement card at a Payzone outlet and BEFORE you buy credit you MUST:

- Insert your card into the card slot in the gas card meter and leave it in the meter for at least 15 seconds.
- Remove the gascard and bring it to a Payzone outlet to purchase credit on the card (see next section).
- When credit has been purchased insert card into meter (see page 4 for further details).

Purchasing credit

Please check the opening times of the Payzone Outlet where you can buy credit.

- Credit cannot be bought over the phone or on line.

  You can contact your Gas Supplier for a list of outlets in your area or log on to:

  www.payzone.ie

Using Your Gas Card

For new or replacement Gas Cards, please ensure that you have followed the steps on page 3 to initialise your Gas Card before purchasing credit.

Transferring credit

1   Insert your Gas Card
    (When inserting your Gas Card, ensure that the gold-coloured chip on the card is facing towards the meter display).

2   The display will show the value of credit on the card.

3   To transfer your money to the meter, press red Button A. At this point any debt you owe will be deducted. Some of the credit you have bought will always be added to the 'CREDIT' screen.

| €10.00 ON CARD |
| PRESS BUTTON A |

4   If the shut-off valve inside your meter has been closed, the display will show 'OFF'. The meter will ask you to check that your appliances are switched off. This is a safety requirement. Check that ALL appliances are turned OFF.
    Then press and hold button A to open the valve in the meter.

| APPLIANCES OFF? |
| HOLD A FOR GAS |

5   Continue to hold Button A until the display changes.

| HOLD A FOR GAS |

6   Now release Button A.

| RELEASE A FOR GAS |

7   Follow instructions until screen indicates ON.
    Your gas is now ready to use.

| PLEASE WAIT . . . |

8   **Transferring Credit – Timeout**
    Remove the card, reinsert it and start from the beginning.

| €10.00   ON |

9   Once credit is transferred, remove the card from the meter and keep it in a safe place. Leaving the card in the meter will run down the battery of the meter and may result in no gas to your appliances.

| TIMEOUT! REMOVE |
| CARD & TRY AGAIN |

Emergency credit

Once the credit on the meter drops to a low level you may be offered 'Emergency Credit'. The amount of Emergency Credit offered to a customer is €20. This can be borrowed until you can buy some more credit.

When you want to use your Emergency Credit, insert your Gas Card into the meter. When the Emergency Credit is offered, you can accept it by pressing the red Button A.

If you use any of the Emergency Credit, you must pay it all back before you can borrow the whole amount again.

If you wish to see how much Emergency Credit you have used and owe, remove the Gas Card and press and release red button A.

We advise customers to keep their meter topped up with credit to avoid the possibility of running out of gas at an inconvenient time.

```
22 EmCr LIMIT
€20.00 ON CARD
```

```
€1.00        ON
EmCr AVAILABLE
```

```
€0.00        OFF
EmCr USED
```

Credit refund

Gas Networks Ireland cannot issue refunds directly, this must be done through your gas supplier. Unused credit on previous card may be claimed by contacting your gas supplier. You should find their telephone number on recent correspondence and on their website.

Standing charge

A daily Standing Charge is deducted from your credit every day at 2am. This is part of the Pay as You Go meter tariff paid to your Gas Supplier.

If you have no credit left on the meter, the daily Standing Charge will be added to the amount shown on the 'OWED' screen and will be recovered when credit is inserted.

The amount of Standing Charge you pay daily is shown on Screen 17.

```
17 STANDING CHRG
€0.0000
```

Please note that even when gas is not in use e.g. during the summer months, the standing charge still applies.

Additional Meter Information

You may view information regarding your meter on the Display Screens. To access the display screens press the red button A until the credit screen appears. Then hold the red button A until you hear a 'beep'. To move through screens keep pressing the button A.

Customers can view their tariff setting through the meter screen. The tariff code and values are located between screens 5 and 15 depending on the setting. If you have any queries regarding your tariff setting, please contact your gas supplier.

Please note: If you have gas debt, your Gas Card must be inserted to view screens 23 – 31. To view the index on your meter press the red button A three times.

Commonly used display screens

00	How much money you last put into the meter
01	Last amount of money taken for debt
02	Last amount of money taken to repay Emergency Credit
03	Last amount given for gas
17	Daily Standing Charge

21	Amount of money you must have on your meter before Emergency Credit will be offered
22	Amount of Emergency Credit that you will be offered
27	Gas Debt Remaining
32	Your customer reference number

Gas Card Issues

If your meter will not accept your Gas Card, take it out, wipe it with a clean cloth and try again.

If it still does not work, press the red button A. If it shows 0.00, you will need to return to the shop where you purchased the credit as the card has not been credited correctly (see page 9).

€0.00 ON CARD

If Card Fail/Card Not Accepted appears on the display screen, ensure that you are using the correct Gas Card.

CARD FAIL/CARD NOT ACCEPTED

If this continues you need to obtain a new Gas Card and initialise it as per the instructions on page 9 of this guide. Once you have completed this, please ensure that you dispose of any old cards and keep the new, initialised card, in a safe place (do not leave it in the meter).

If You Have No Gas

1 Press the red button A.

2 If your screen displays your gas is ON as per the screen to the left, please carry out the following checks:

    * Reset your boiler or appliance

    * Check your central heating timer

    * Check the isolation valve at the meter is open (this is located underneath your meter, usually to the left hand side of it)

    * Check if the gas is on to other appliances (cooker, hob, fire, boiler etc). If any one of these are working then the problem is with the appliance not the meter or the gas card. You will therefore have to contact a Registered Gas Installer (RGI) to have the appliance repaired

    * Remember you should have your appliances serviced annually by an RGI. You can get a list of RGIs on **www.rgii.ie** or by calling **1850 454 454**.

€12.85	ON

3 If your screen displays as indicated left, you can open the valve with your Gas Card to access this credit. (See page 9 for instructions).

€12.85	OFF

4 If your screen displays as indicated left, you must purchase credit or use your emergency credit if it has not already been taken (see page 9)

€0.00 CREDIT	OFF

5 If screen displays as indicated left, clean your card and try again. Make sure you are using the correct card for this meter. Remember, only one card can be registered to an individual meter at any one time.

CARD NOT ACCEPTED

6 If your screen displays as indicated left, purchase a new card. (When a new card is purchased, it must be put into the meter to be initialised before credit can be put onto it). See page 9 for further details.

CARD FAIL

7 If the Display Screen displays as indicated left, you must call us at **1800 464 464**.

CALL HELP

Note: When you call us for "call help" you must be at the meter location and be in a position to read displays off your gas card meter. If you call us and we call out to you but the problem is with your appliances or the gas supply and not your gas card then you may be liable for the call out charges.

Moving House

If you are moving house, don't forget to contact your Gas Supplier at least 48 hours before you move. You will need to close your existing account and open a new one for your new address.

Please ensure you update your account details with your gas supplier when moving house as you may incur debt from previous tenants if you don't.

Further Assistance

Meter

If you have any queries or problems with the operation of your Gas Card meter, please contact our Gas Networks Ireland Customer Care Team on:

1800 464 464

Monday to Friday 8am – 8pm
Saturday 9am – 5.30pm
or **Email networksinfo@gasnetworks.ie**

Gas card

If you have any issues with your gas card please contact your gas supplier or nearest Payzone outlet. Alternatively you can log onto:

www.payzone.ie

Appliances

If you have any issues with your boiler, cooker/hob please contact a Registered Gas Installer. You can get a list of RGIs on **www.rgi.ie** or by calling **091 480 974**.

Refund/charges

Gas Networks Ireland cannot issue refunds directly, this must be done through your gas supplier. If you have any questions regarding debt recovery or lost credit, please contact your Gas Supplier. You should find their telephone number on recent correspondence and on their website.

If you smell gas call
1800 20 50 50
24hr emergency service

This information is available to download in plain text and the following languages: Irish, French, Polish, Mandarin Chinese and Russian.

Visit gasnetworks.ie

Business Aspects
of Pay As You Go Metering

2. General System Overview

2.1 Key Stakeholders
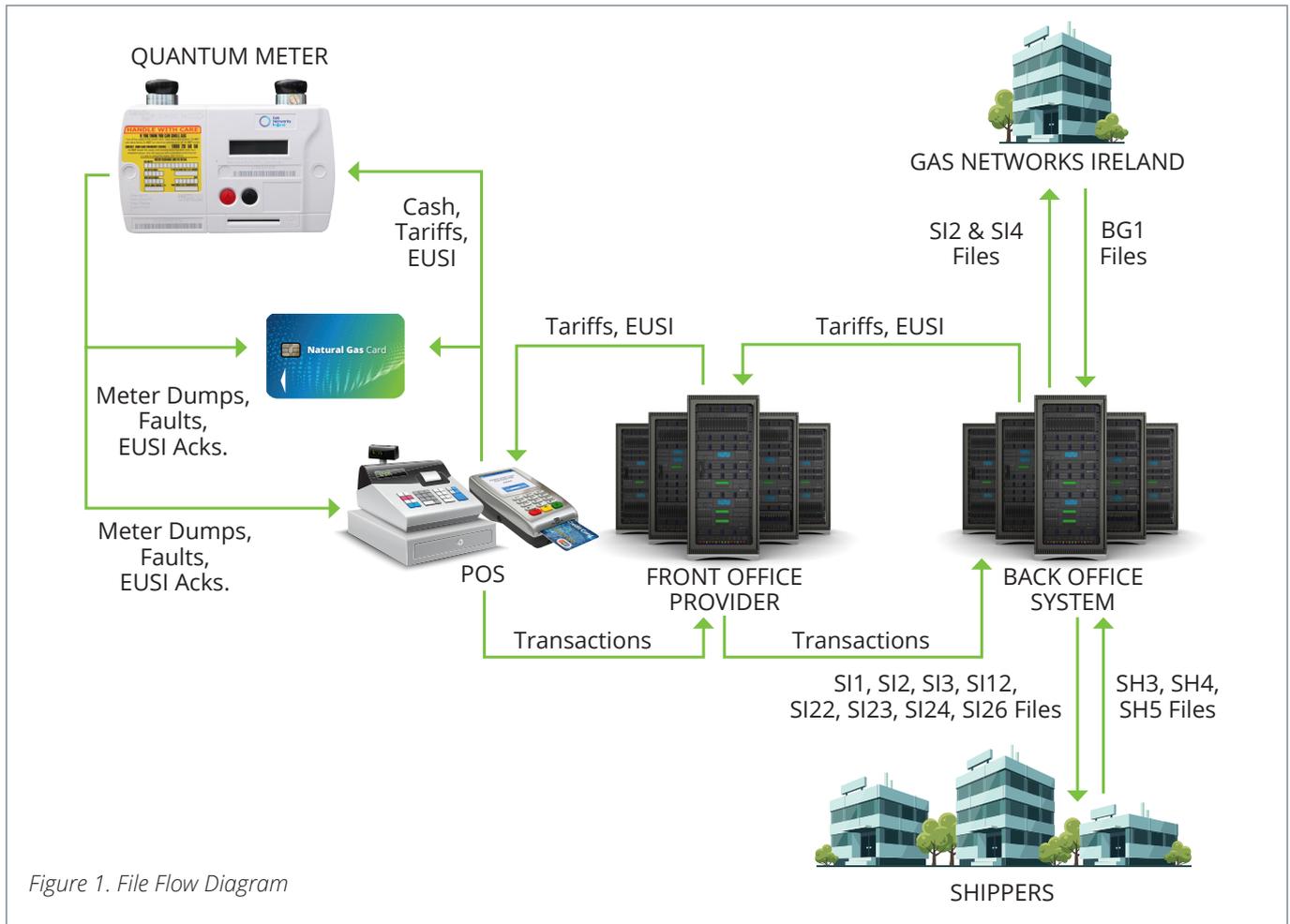
Figure 1. File Flow Diagram

STAKEHOLDER	DESCRIPTION
Customer/Gas Card	• The gas card is used by the Pay as You Go customer to vend gas credit at the Front Office terminals.
	• At vend time, the gas card also picks up any outstanding instructions/messages and transfers these to the meter.
	• When inserted in the meter, the credit/messages are transferred to the meter.
	• Any instructions on the card are implemented and an acknowledgement (ACK) is written to the card.
	• Meter Read and diagnostics are written to the gas card and these, along with the acknowledgements are uploaded to the Back Office at the next vend.
	• Allows customers to access Emergency Credit on the meter (when available)
	• Allows access to debt registers in the meter
	An example of a gas card is pictured left.

STAKEHOLDER	DESCRIPTION
Suppliers	• Suppliers can send PAYG related market messages to GNI e.g. Fit PAYG, exchange credit to PAYG. • Suppliers send customer specific requests to the Back Office Provider, e.g. Adjust End User credit, tariff settings. • Suppliers send regional messages to their customer base via the Back Office Provider. • Suppliers receive daily transaction data from the Back Office Provider and reconcile it with the payments received from the Front Office Providers. • Suppliers receive report information from the Back Office Provider on a scheduled basis including debt information and status of each account after each vend.
Gas Networks Ireland (GNI)	• GNI informs Siemens of any PAYG meter fits, exchanges or disconnects. • GNI informs Back Office Provider of any Change of Shipper or registration information. • GNI receives meter details (meter reads and diagnostic data) from the Back Office Provider and processes this information in IUS. • GNI receives copies of all transactional data sent to suppliers including data for suspense transactions. • GNI liaises with the Front Office Service Providers to ensure gas cards are available for customers. • GNI would coordinate and manage any market wide or industry facing PAYG aspects.
Front Office Provider Payzone	• Payzone are the Front Office Service Provider. They manage the outlet chain and associated websites. • They collects payments from vending and disburses these monies to the suppliers and the suspense account based on instructions from the Back Office Provider. • They transfers all encrypted data from the Back Office Provider to and from the gas cards. • Collects transaction details and sends them to the back office • Receive End User Specific Instructions (EUSIs) and regional data and makes them available for collection by end users • Provision of a service to investigate and resolve payment or payment data file queries from suppliers in respect of prepayment meters registered to the Suppliers. • Delivery of the services required for the operational management of the vending outlets and information flow to/from the Back Office Provider. • Delivery of the services required for the operational management (including Disaster Recovery arrangements) of the overall payment processing and transaction handling system for payments made through the Retailers.
Back Office Provider	• Siemens are the Back Office service provider. They process requests from GNI and suppliers and send instructions to the Front Office Provider(s). • The Back Office Provider assigns suppliers to transactional data received from the Front Office Provider(s) and, based on this, send detailed vend data to each Supplier. • The Back Office Provider inform the Front Office Provider(s) how much to pay each Supplier and the suspense a/c. • The Back Office Provider extract and send Meter Read and Diagnostic data to GNI • They extract and send reports to suppliers and GNI as scheduled. • They deal with queries from suppliers relating to file transfers and updating settings etc. • The Back Office Provider process both regional messages and EUSI messages on behalf of suppliers.

2.2   Pay As You Go Acronyms and General Terms

ACRONYM/TERM	DESCRIPTION
PAYG	Pay As You Go Meter
EUSI	End User Specific Instruction
GNI	Gas Networks Ireland
BO	Back Office (Siemens)
FO	Front Office (Payzone)
ACK	Acknowledgement
COS	Change of Shipper
PAYGSP	Pay As You Go Service Provider
GasMaP	Market Messaging Front End for IUS
GPRN	Gas Point Registration Number
Meter ID	Unique identifier on IUS by which a Pay as You Go meter can be identified. It is encoded from the meter to the gas card.
Gas Card Ref	It is used to uniquely identify the gas card for the purpose of directing messages to the card.
SES	Siemens
RST	Regional Reset
EST	End User Specific Tariff
BGN	Older reference to GNI in some diagrams
UAT	User acceptance testing
MCF	Meter Conversion Factor
CV	Calorific Value
JIT	Joint integration testing
NDM	Non daily metered
IUS	Integrated Utility
Supplier/Shipper	These terms are used interchangeably within this document. Refers to the supplier of gas for the Pay as You Go customer. Some processes, file formats etc. refer to this as shipper

2.3   Dependencies

The Gas Pay as You Go Solution has many dependencies due to the number of stakeholders involved.

For the end to end solution to operate correctly:

- The File Flows between suppliers and the Back Office Provider need to be in place
- The File Flows between GNI and the Back Office Provider need to be in place
- The Back Office Provider solution needs to be correctly in place in order to receive and act on the instructions from both the suppliers and GNI
- The File Flows between the Back Office Provider back to suppliers and GNI need to be in place
- The Front Office Providers need to correctly execute the messages from the Back Office Provider and suppliers and make these available to the customer
- The front office terminals need to operate and the payment channels between Front Office Provider and suppliers need to be in place
- The Gas Card needs to operate correctly
- The Meter needs to operate correctly
- The supplier systems need to be able to correctly upload the files received
- GNI's system need to be able to correctly update the Back Office Provider files received.
- Customer needs to insert card into meter after vending to ensure all data is transferred.

2.3.1 Limitations of the current solution

The overarching limitation of the current solution is the dependency on the gas card. The gas card allows for the two way communication with the meter, collecting information from the meter every time the gas card is inserted and putting information on the meter which was retrieved from the previous vend.

The gas card correctly does what it was designed to do but there needs to be an acknowledgement that we cannot remotely access the meter. This is true for all events, such as applying credit or debt, changing tariffs, accessing emergency credit etc. The gas card is the only way of applying data to the meter, and retrieving data from the meter.

2.4   Market Testing

Market Testing (Market Assurance) is required if significant changes are made to the Pay as You Go solution. This is to ensure that any changes, either new supplier entry or Front Office/Back Office project work, do not negatively affect the solution and that supplier systems, GNI systems and Front and Back Office systems can all reliably use the solution in place.

GNI appoint a market assurance provider, who outline the testing necessary in order to give confidence in the systems that are being verified.

2.5   Market Messaging Reads Specific to PAYG

Retail market messaging GasMaP (Messaging and Processes) provides an infrastructure which supports the automated exchange of data between retail gas market participants – i.e. providing a link between the IT systems of Gas Networks Ireland, and the systems of the various gas suppliers in the retail gas market.

GasMaP is based around a 'market messaging' solution, which ensures that all market participants are treated in an equal manner in relation to the processing of market related business transactions. All documentation stored on the GNI website has been approved by GMARG and the CRU and is considered 'baselined' (unless otherwise stated).

https://www.gasnetworks.ie/corporate/gas-regulation/service-for-suppliers/retail-market-messaging/

GasMaP reads are issued to suppliers once processed on the GNI IUS system. There are many read types associated with reads and site works jobs for suppliers, and some specific to PAYG. These are outlined below:

Read Type	GasMap Export as -	Description	Mkt Mgs	Source / Process	What/When Read is to be used?	Actual	Customer	Exported	Withheld
FG	FG	Fit Gascard Meter	604N	Net Ops	Job Specific Read Type for new Gascard Meters that are fitted	✓		✓	
GA	GA	PAYG Actual Read	803N	MRS	PAYG Actual Read. Annual actual read on a Pay as You Go meter. Similar characteristics to an MR	✓		✓	
GP	GP	PAYG - GasCard Read @credit purchase	803N	Siemens - MRS	Read received at terminal when Gas Card credited.	✓		✓	
GI	GI	GIST Tool Reads	803N	Net Ops	Read generated with a GIST tool is used at a meter	✓		✓	
GR	GR	PAYG Statement Read	803N	MRS	PAYG Scheduled Statement Read. Equal to last actual read received.	✓		✓	

3. Description of Key Processes

3.1 General Vend Process

<u>Before</u> a customer can purchase credit on the new card, they must first insert it into the meter. This process takes < 30 seconds. This initialises the card.

The Gas card is used to vend credit at Payzone terminals. The Vending Terminal validates the card to ensure that:

- The card is a valid natural gas card

- The card has been initialised in the meter

- If either criteria fail, the terminal will indicate that the card has failed validation.

If the card is valid then the vend proceeds. The card is updated with the vended amount. At vend time, the gas card also picks up any outstanding instructions and transfers these to the meter, but please note that a customer can pick up any EUSI messages at the terminal by conducting a zero vend also.

When inserted in the meter after the vend, the credit on the card is transferred to the meter.

Any outstanding instructions on the card are implemented and an acknowledgement (ACK) is written to the card. Meter Read and diagnostics are written to the gas card and these, along with the ACKs are uploaded to the Back Office at the next vend.

Replacement gas cards can be purchased from Payzone outlets for €1. The gas card is non-transferable. Customers should contact their supplier if problems are encountered with credit on their card.

There is a minimum Top-up value of €10. Top-up ranges from €10 to €50.

3.1.1 How the meter allocates the vend

The meter follows this process/hierarchy:

- Purchased Credit (vend) goes into the meter

- Percentage is put aside for Gas (55%)

- Meter determines if Gas Debt is owed, and how much of the credit can be used for recovery of that (10%)

- If there is a gas debt owed, the meter will attempt to recover 10% of the vend for this. If there is no gas debt to recover the meter will then see if there is any general debt (accrued standing charge and emergency credit debt) which can be recovered from this sum. Similarly if the gas debt owed is less than 10% of the vend any surplus will be fed down to address general debt.

- The percentage of the vend that is not assigned towards Gas Debt or Gas Allocation (35%), is used to pay off any Emergency Credit Debt / Standing Charge Debt first, and anything remaining is given to the customer as credit for Gas.

- Emergency Credit Debt and Standing Charge Debt are collected together, not one before the other, and are collected in ratio to one another.

3.1.2 Transaction process following a vend

Transaction details are sent from the Front Office to the Back Office overnight, with the diagnostic data in the .DUP file. This would be the details of all vending across all front office providers that took place that day.
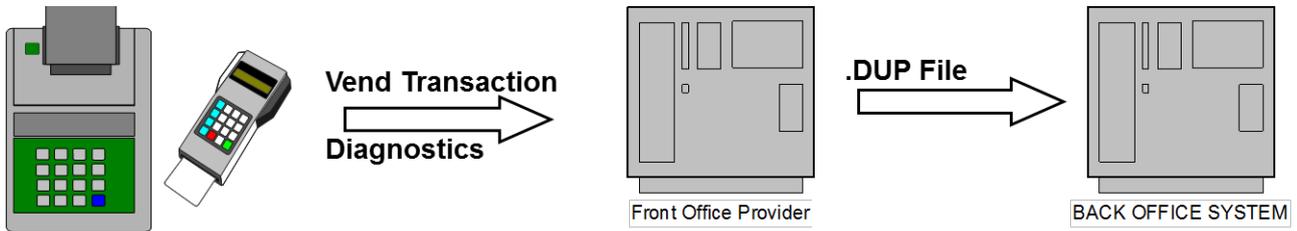
The Back Office Provider analyses this data, generating 2 sets of cash transaction files - SI2/SI3 files for each registered PAYG supplier.

The two sets of SI2/SI3 files are made available to the Supplier by 08:00 the following morning;

- One for transactions settled on the day.
- One for transactions coming out of suspense.

Where Siemens cannot identify the supplier assigned to the transaction, these vends will be directed to the Suspense file until such time as the supplier has been identified.

For the suspense file, when new information has been received from GNI identifying the Supplier associated with transactions in the Suspense A/C, the Back Office Provider releases the relevant transactions and sends a separate set of SI2/SI3 files for these to the supplier. The Back Office Provider send a copy of the transaction files to GNI as well as transaction files for those transactions entering suspense.

Once the SI2/3 files are generated, the Back Office Provider generates two files to be sent to the front office

1. SUM File – How much to pay each supplier and how much to pay to suspense
2. SUS File – Details of transactions entering and exiting suspense (For audit purposes)

The Front Offices settle with suppliers and the suspense account based on these files. Suppliers can reconcile amount settled with SI2/SI3 files received.

3.2 Debt Recovery

The purpose of this section of the document is to define the process of debt recovery within Pay as You Go meters, with a view to enabling an increased understanding by Gas Suppliers.

The document is written with an understanding that most suppliers employ a 45%/55% split.

3.2.1 Debt Recovery Process

The customer is guaranteed some gas from credit purchased which is determined by the Gas Allocation Rate. This is defaulted at 55%.

The meter follows a set process when credit is inserted into the meter, with is as follows:

1. Credit on Gas card is inserted into the meter

2. Meter guarantees a percentage of the credit for gas

3. Gas Debt is deducted as a percentage

4. Any remaining credit is used to repay General Debt. Depending on the amount owed, it may not be paid in full; this will then have to be recovered at a later date.

5. If there is still credit left, this is given to the customer for gas usage.

Debt Recovery Hierarchy

· Meter guarantees a percentage of the credit for gas (55%)

· Gas Debt is deducted if applicable (10%)

· General Debt is deducted if applicable (35%)

· If any credit remains after Gas Debt and General Debt are checked, this is then applied as to credit for gas usage.

3.2.2 Types of Debt

There are different types of debt that can be programmed to or generated by a meter. Gas Debt displayed on the 'back screens' of the meter is debt that a Supplier has sent down to be collected, whereas 'front screen debt' or general debt is debt that the meter has calculated as being owed to it.

For example on most prepayment meters, these can be viewed on the following screens:

Screen 27 – Gas Debt. This debt is set to a meter by a Supplier. The corresponding collection values are located on screens 24 – 26 of the meter.

Screen 31 – Non Gas Debt. This screen is not utilised by the ROI market. The corresponding screens are 28 - 30.

Owed screen – General Debt. General Debt is debt the meter has calculated and is made up of two types; accrued Standing Charge and Emergency Credit Debt.

3.2.3 Gas Debt

Gas Debt is sent to a meter via a GDT EUSI; the Supplier needs to provide all four elements of the gas debt message - a Gas Debt Weekly Minimum, Weekly Maximum and Gas Debt Recovery Rate in addition to the debt value itself.

• The Gas Debt Recovery Rate will be set to 10%.

• The Minimum and Maximum will both be set to €0.00.

Once the values on the EUSI are live in the meter, every time the meter is topped up, 10% of each top up will be taken by the meter towards the Gas Debt.

3.2.4 General Debt

As mentioned above, General Debt is a sum of two different debt figures; accrued Standing Charge and Emergency Credit Debt.

Standing Charge accrues when there is not enough purchased credit on the front screen of the meter at the 2am event to cover the daily charge. The money due is added to the Owed screen as a General Debt instead.

Emergency Credit Debt amasses when the customer uses the Emergency Credit facility provided by the meter. The facility can only be used again once all the debt from when it was used last has been paid back. Whilst using only Emergency Credit, no Standing Charge or Gas Debt can be collected by the meter.

Standing Charge Accrual and Emergency Credit Debt is always collected together, as a ratio of one another.

For example, if €5.00 is owed for Standing Charge, and €2.00 is owed for Emergency Credit Debt and the meter has €3.50 to use towards these, the ratio is 5:2, so €2.50 is taken for Standing Charge, and €1.00 is taken for Emergency Credit Debt.

3.2.5 Debt Recovery Examples – No Gas Debt Set to the Meter

In the following examples, no value is set to recover from screen 27 however there may be money owed for General Debt.

Example 1: • Gas Allocation Rate: 55% • Gas Debt Rate: 0%	No General Debt owed to the meter; customer purchases €10.00 of credit. When the credit is inserted into the meter, the following steps happen: 1. 55% guaranteed for gas = €5.50. 2. Nothing is owed for Gas Debt; meter still has €4.50 remaining to allocate. 3. Nothing is owed for General Debt; meter still has €4.50 remaining to allocate. 4. The remaining €4.50 is added to the initial €5.50 = all **€10.00** given as **credit** for gas
Example 2: • Gas Allocation Rate: 55% • Gas Debt Rate: 0%	€2.00 Emergency Credit Debt owed to the meter; customer purchases €10.00 of credit. When the credit is inserted into the meter, the following steps happen: 1. 55% guaranteed for gas = €5.50. 2. Nothing is owed for Gas Debt; meter still has €4.50 remaining to allocate. 3. **€2.00** owed to **Emergency Credit** is paid back; meter still has €2.50 remaining to allocate. 4. The remaining €2.50 is added to the initial €5.50 = **€8.00** given as **credit** for gas.
Example 3: • Gas Allocation Rate: 55% • Gas Debt Rate: 0%	€50.00 Standing Charge Accrual owed to the meter; customer purchases €10.00 of credit. When the credit is inserted into the meter, the following steps happen: 1. 55% guaranteed for gas = €5.50. 2. Nothing is owed for Gas Debt; meter still has €4.50 remaining to allocate. 3. **€4.50** of the €50.00 owed for **Standing Charge Accrual** is paid back; meter has nothing remaining to allocate. 4. The initial **€5.50** is therefore the overall total **credit** received for gas. 5. The Owed screen has reduced from €50.00 to €45.50.

3.2.6 Debt Recovery Examples – Gas Debt Set to the Meter

In the following examples, €100 is set to recover from screen 27 (in the first example) and there may be money owed for General Debt.

Example 1: • Gas Allocation Rate: 55% • Gas Debt Rate: 10% • Gas Debt on screen 27: €100.00	No General Debt owed to the meter; customer purchases €10.00 of credit. When the credit is inserted into the meter, the following steps happen: 1. 55% guaranteed for gas = €5.50. 2. €100 is owed for **Gas Debt** so the meter recovers 10% of the credit inserted = **€1.00**; still has €3.50 remaining to allocate. 3. Nothing is owed for General Debt; meter still has €3.50 remaining to allocate. 4. The remaining €3.50 is added to the initial €5.50 = €9.00 given as credit for gas.

Example 2:	€2.00 Emergency Credit Debt owed to the meter; customer purchases €10.00 of credit. When the credit is inserted into the meter, the following steps happen:
• Gas Allocation Rate: 55%	1. 55% guaranteed for gas = €5.50.
• Gas Debt Rate: 10%	2. €97.50 is owed for **Gas Debt** so the meter recovers 10% of the credit inserted = **€1.00**; still has €3.50 remaining to allocate.
• Gas Debt on screen 27: €97.50	3. **€2.00** owed to **Emergency Credit** is paid back; meter still has €1.50 remaining to allocate.
	4. The remaining €1.50 is added to the initial €4.50 = **€7.00** given as **credit** for gas

Example 3:	€50.00 Standing Charge Accrual owed to the meter; customer purchases €10.00 of credit. When the credit is inserted into the meter, the following steps happen:
• Gas Allocation Rate: 55%	1. 55% guaranteed for gas = €5.50.
• Gas Debt Rate: 10%	2. €95.00 is owed for **Gas Debt** so the meter recovers 10% of the credit inserted = **€1.00**; still has €3.50 remaining to allocate.
• Gas Debt on screen 27: €95.00	3. **€3.50** of the €50.00 owed for **Standing Charge Accrual** is paid back; meter has nothing remaining to allocate.
	4. The initial **€5.50** is therefore the overall total **credit** received for gas. The Owed screen has reduced from €50.00 to €46.50, and the Gas Debt from €95.00 to €94.00.

3.3   Clearing Standing Charges

A meter can have a build-up of standing charges if a premises is vacated or a customer does not vend on a regular basis. A Credit Adjustment EUSI can be sent down by a supplier to clear any build-up of standing charge.
Please note this cannot be used to clear emergency credit.

3.4   Debt Transfer

Following a Change of Shipper, the incoming supplier is NOT ALLOWED to see any debt information remaining on the meter from the previous Supplier.

To facilitate this requirement a mechanism to remove entries from the SI12, where debt is present following a CoS, has been implemented.

In addition to removing the record a Gas Debt Adjustment EUSI will be automatically generated by the system to remove the debt from the meter by subtracting the value of the debt.

To note, at the time of change of suppler, both Credit and General debt remain on the meter, only Gas Debt is removed.

3.5   EUSI Processing (End User Specific Instruction)

A EUSI is an End User Specific Instruction. These are generated based on communications sent to the Back Office Provider from the Supplier. They are then generated by the Back Office Provider and sent to the Front office to initiate an update to a gas card when vending occurs.

If a supplier wishes to raise an individual EUSI for an End User registered to that supplier they should submit an SH3 file. The technical description of this, file formats etc. are outlined in chapter 13 of this document.

EUSI Messages are sent when a supplier wishes to send a message directly to a single customer, this can be in the form of a credit message or a debt message.

EUSIs, when generated, shall be distributed to all active Front Office Terminals so will be picked up by the customer at the next vend and are activated when the customer inserts the gas card into the meter.

A Gas card is dedicated to the meter on insertion – the meter serial number is written to the card so once this is done, that gas card cannot be used anywhere else.

EUSI messages can be sent as Urgent or Non Urgent. Suppliers can send an urgent message whereby a customer could pick this up within the hour.

EUSI messages time out after a period of time specified by each supplier (default 60 days), this means they expire at the terminal if the customer does not vend within 60 days. Suppliers can monitor whether EUSI are picked up via the Back Office Provider acknowledgements.

The meter can accept two gas cards at any one time. If a third gas card is introduced, then the first gas card in the sequence gets "knocked out" and becomes invalid.

3.6   Regional Messages

The Pay as You Go solution maintains a regional data file which takes system configurable parameters that are transferred to the meters via the gas card. The back office sends the updated regional data file to the front office which makes it available for collection at vend time. The difference between EUSI Messages and Regional Messages is that a EUSI is customer specific, regional messages are applied to the entire customer base.

Changes to some of the data in the regional data file are authorised by the supplier, such as Tariff Values, and others are authorised by GNI, such as the CV values. Both are outlined in more detail in other sections of this document.

3.7   Pairing a Card to a Meter

A gascard needs to be paired to a meter as a gas card is blank. A blank gas card is one which is used at initial meter fit.

Three vends are required in order for the gas card to be "Married" to the meter. This means that all information is obtained to allow the systems to be aligned. This ensures that transaction files and payment information are sent to the correct supplier. Until such time as the systems are aligned, the vend information will be held in suspense.

It is important before vending begins, that the customer puts the gas card in the meter to first initialise it. They can then proceed to the vending outlets to buy credit. The customer can start vending and using gas straight away, while from a system point of view it takes three vends to align the information required for the transaction and payment flow

Technical description of the 3 vend process:

	AT THE OUTLET	BACK OFFICE
Vend 1	User vends for the first time after the card is initialised in the meter. CID = MNL Vend details are sent to back office User goes back to the meter and uploads credit. No EUSI on the card so no updates made or ACKs generated	Vend on MNL received by the Back Office Provider, they generate change CID to GPRN EUSI. Back Office transmit Change CID to GPRN EUSI for MNL card to pick up at the outlet
Vend 2	User Vends – this is the first time Front office is informed that CID = MNL and picks up Change CID EUSI. User goes back to the meter after the vend, CID is changed to GPRN from MNL./ Acknowledgement for CID EUSI is put on the card	
Vend 3	User Vends and picks up other EUSI, Vend details and ACK for CID are sent to the back office EUSI are applied to the meter, acknowledgements for EUSI are put back on the card	

VEND ON A BLANK REFERENCE NUMBER
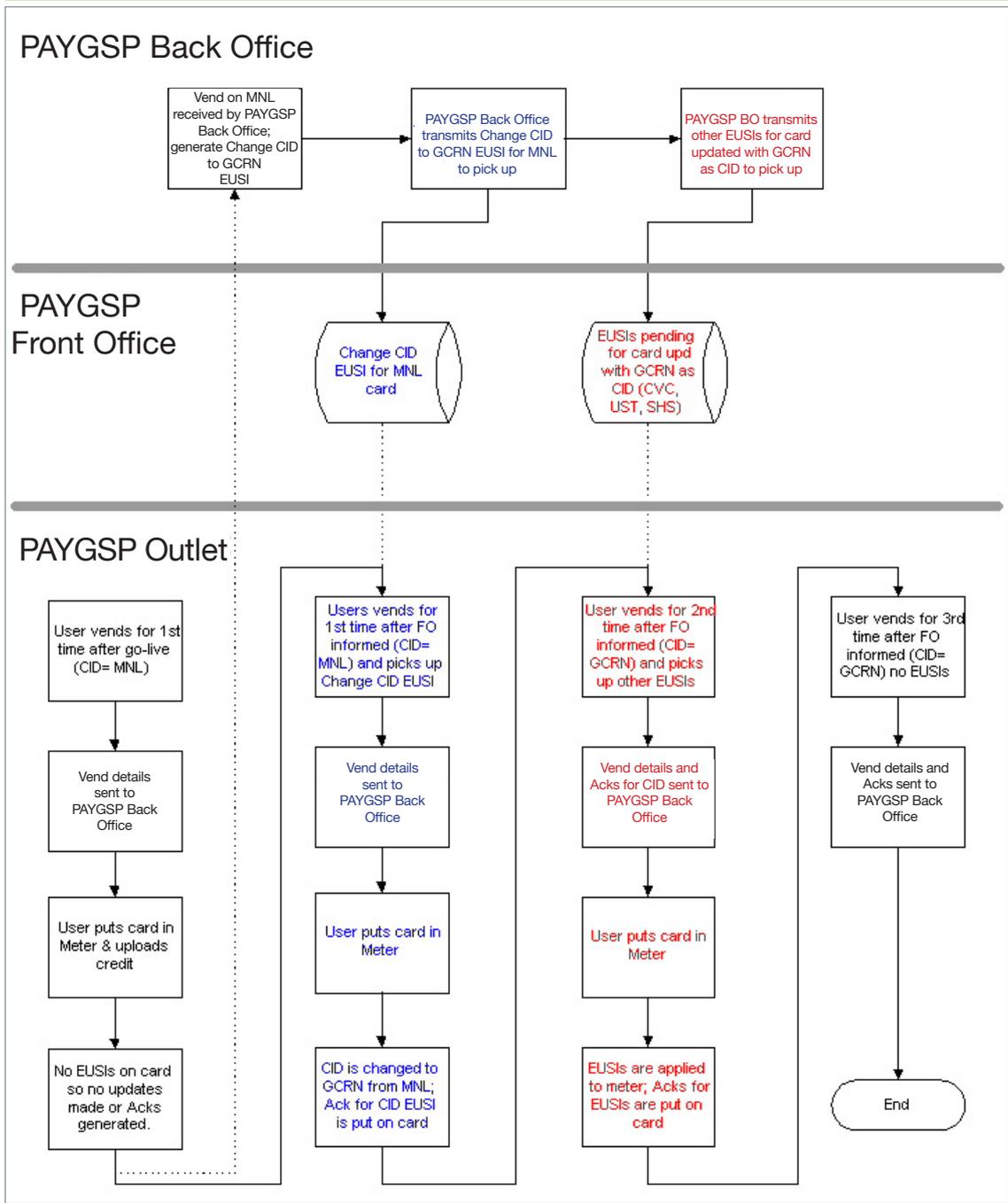
3.8   Change of Shipper

All suppliers in the Pay as You Go market use the same solution so the customer experience is the same across all suppliers. There are two elements to consider here at time of change of supplier:

•   Updating the GNI system via market message

•   Updating the Back Office Provider system via a BG1 message from GNI

MPD2 is the market process that outlines the Change of Shipper (CoS) for NDM and the Cancellation of CoS for NDM Market Process which applies to NDM Supply Points. The Change of Shipper process governs the recording of a change of registration of NDM Supply Points between Suppliers on the Gas Point Register.

For a Pay as You Go Change of Shipper GNI informs the Back Office Provider of:

•   New Suppliers identity,

•   Default tariff details

The supplier initiates this market process by submitting a G201RQ – Change of Shipper Request Market Message via the GasMaP system.

If G201RQ passes initial Validation then GNI sends G203N and G204N to the Suppliers. Once Overnight Validation is completed successfully on GasMaP, GNI sends G205N and G206N to the Supplier to confirm CoS Completion.
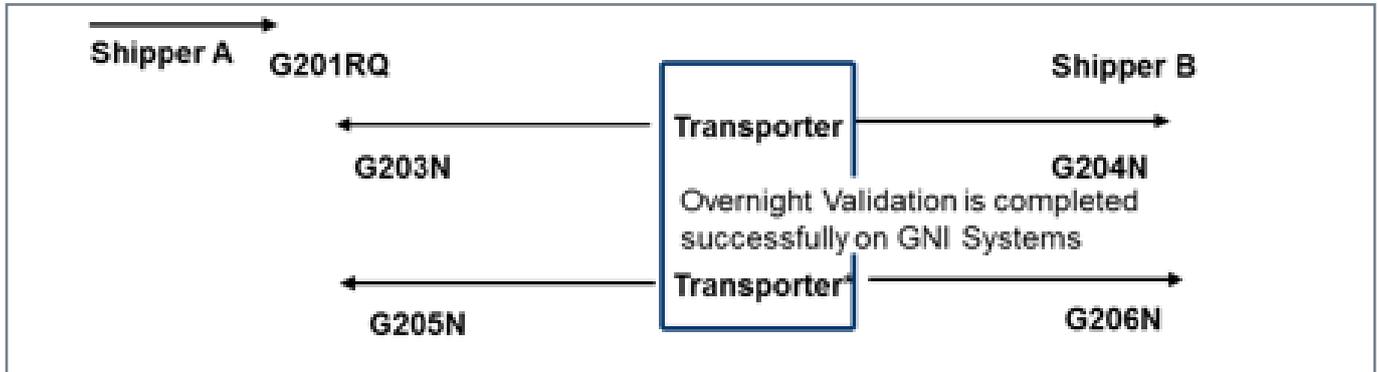
- GNI notifies Siemens of the new Suppliers identity and any changes to the End-User Details.

- The Back Office Provider processes the instruction and makes a UST EUSI (Update Shipper Tariff) available for pick-up by End User at the Front Office Terminal.

- The incoming Shipper's tariff will automatically apply to the End User unless the Back Office Provider receives a specific instruction from the Supplier otherwise.

- When a customer vends, for the 1st time after the CoS, the instructions are uploaded to the gas card as part of the vending transaction. The instructions are uploaded when the gas card is next inserted into the meter and downloads acknowledgements to the card.

- Once the customer vends a 2nd time, Acknowledgements received are sent back to GNI, and then processed.

- CoS messages to the Back Office Provider are only done after the CoS has taken place.

- CoS Messages to the Back Office Provider are non-Urgent and sent overnight

- If the End User details in the original Change of Shipper Request remove an existing status of vulnerable Elderly then this status will persist for 10 days. After which, the status will be cleared unless the incoming Supplier, sends an explicit Existing End User Update Request (G101RQ) to reinstate the vulnerable Elderly status.

GNI receives a valid CoS Request and Informs the Back Office Provider via a BG1 message that there is an update to the Supplier ID.
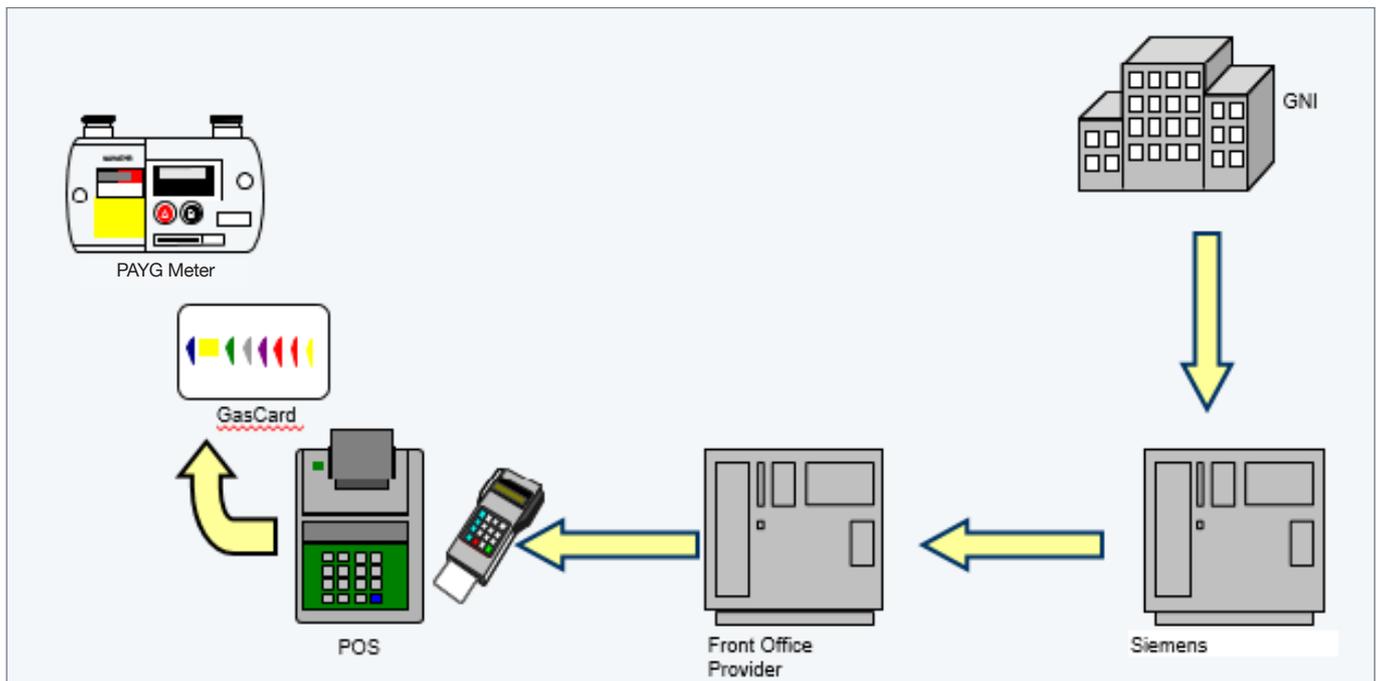
The Back Office Provider creates a UST EUSI (Update Shipper Tariff). The EUSIs are made available at the terminal.
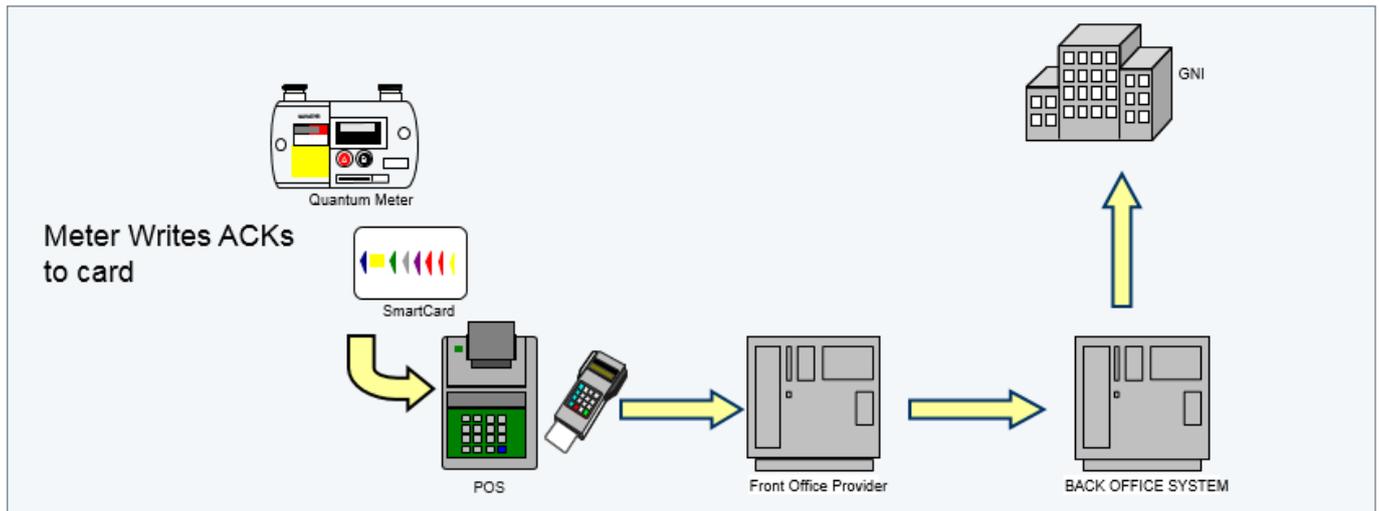
The Back Office Provider channels the acknowledgements to GNI from the BG1. Through this mechanism, the Transporter can verify if the Change of Supplier update has been implemented on the Back Office Provider Portfolio.

3.8.1 Debt and Credit at time of Change of Supplier

When a customer changes supplier, any credit that is on the meter at the time, remains on the meter. The incoming supplier should confirm with the customer what the credit balance is at that time, so they can account for this in terms of the customers vending. If a customer has a high credit balance at the time of change of supplier, they may not need to vend for a period, although the new supplier will be eligible for capacity charges from the point of registration.

When a customer changes supplier, gas debt on the meter is not transferred. General Debt in the form of standing charges and Emergency Credit are transferred. Prepayment meters are subject to the same debt flagging as is in place across the market.

It can occur, that prepayment customers may not be aware of who their current supplier is. This can manifest itself if for example a gas card is left on top of the meter and there are changes in tenancy. GNI can inform customers of who their current supplier is, there is a GNI contact number at the back of the prepayment gas card which can be used to obtain this.

3.8.2 Credit at time of Change of Supplier and Meter Exchange or Decommission / Recommission

In the 10 working days following a Change of Supplier if a meter is:

a) identified as faulty and is exchanged by a GNI fitter; or

b) decommissioned and recommissioned by a GNI fitter

and there is credit on the meter that is due back to the End Users which the fitter is unable to transfer to the new meter. In this case, an email is generated to the incoming supplier advising of the value of credit due to the End User.

Should the End User contact the incoming supplier in relation to the outstanding credit, the incoming supplier shall refer the End User to the outgoing supplier. The outgoing supplier must refund the value of the outstanding credit to the End User directly (i.e. by an appropriate means agreeable to the End User rather than by arranging for the credit to be reinstated on their meter) as they were the supplier who received the vend monies initially. The incoming supplier who is the new registered supplier did not receive the vends and therefore is not responsible to refund the End User any credit due back.

As the outgoing supplier is no longer the registered supplier, they will resolve the credit due back to the customer offline between themselves and the customer. Sending a CRA (Credit) down to the meter is not an option as they are no longer the registered shipper.

3.9   Pay As You Go Meter Fit

A Pay as You Go meter can be fitted at a premises at the request of a supplier; for lifestyle or financial hardship reasons. A meter fit request for reasons of financial hardship can be indicated at the time of raising the request, in this instance the supplier would not incur site works charges for this work. A supplier requested meter fit for lifestyle reasons will incur the charges outlined in the Siteworks Charging Document.

Please note that whether the customer is lifestyle or financial hardship, the Pay as You Go solution is exactly the same, the only difference being that the supplier uses the debt recovery functionality.

3.10   Pay As You Go Meter Exchange

Pay as You Go meters are exchanged for various reasons, as part of ongoing meter replacement works, battery issues or general meter issues that may warrant an exchange.

The meter exchange process for PAYG is initiated in the same way as a non-PAYG meter by the receipt of a siteworks market message. There are additional requirements in place to cover the fitting of a PAYG Meter where the End User is vulnerable or the location of the Pay as You Go meter would not be suitable or safe for the customer.

For the majority of cases, the fitter can transfer any remaining credit and debt information on the old meter, to the new meter, via the GIST tool. If for some reason they cannot transfer the information, they will record the values and an email will be sent to the supplier as outlined below.

3.10.1 Outstanding Credit

When a Pay as You Go meter is disconnected or exchanged there may be credit remaining on the meter which is due back to the end user. If this value cannot be transferred by the fitter at the time of the exchange, an email will be generated automatically to the registered Supplier detailing the amount outstanding and a reason to denote whether the value has been confirmed by the Fitter or by the customer. If the description indicates that the credit has been confirmed by the End user this means that the fitter has been unable to ascertain the amount outstanding and has been given the value by the end user.

Each Supplier in the Pay as You Go market should nominate an email address to GNI for these emails.

To: PAYGcredit@Supplier.ie
Subject: PAYG Credit Details for GPRN 123456

```
==================
PAYG Credit Details
==================

GPRN: 123456
Amount: €100.00
Reason: Credit Confirmed By Customer
```

3.10.2 Outstanding Gas Debt

When a Pay as You Go meter is disconnected or exchanged there may be Gas Debt and General Debt remaining on the meter. If this value cannot be transferred by the fitter at the time of exchange, an email will be generated and sent automatically to the registered Supplier in the following circumstances:

- Outstanding Gas Debt has been ascertained by the fitter from the PAYG Meter.

- Outstanding Gas Debt has been ascertained by the fitter from the customer.

- Gas Debt cannot be ascertained due to meter malfunction.

This mail will detail the amount outstanding and a reason to denote whether the value has been confirmed by the Fitter or by the End User.

If the description indicates that the Gas Debt and/or General Debt has been confirmed by the End user this means that the fitter has been unable to ascertain the amount outstanding and has been given the value by the end user. If the description indicates that the Gas Debt and/or General Debt Unverified this means that the fitter has been unable to ascertain whether there is an amount outstanding due to meter malfunction.

Mails will not be generated where it has been ascertained that there is no debt on the PAYG Meter.

Please be aware that general debt is different from Gas Debt, Gas debt is a consumption debt and General Debt is a build-up of standing charge and/or emergency credit.

There is no separate way to send down general debt onto the meter, so if both gas debt and general debt emails are received by the Supplier then the amounts need to be combined and sent as a single debt value on the EUSI.

Each Supplier in the PAYG Market should nominate an email address to GNI for these emails.

To: PAYGdebt@Supplier.ie
Subject: PAYG Gas Debt Details For GPRN 123456

```
==================
PAYG Gas Debt Details
==================

GPRN: 123456
Amount: €100.00
Reason: Credit Confirmed By Customer

==========================
PAYG Gas General Debt Details
==========================

GPRN – 123456
Amount – € 43
Reason – Verified by Fitter
```

After an exchange there is a 3 vend process that needs to be completed before a credit adjustment (CRA) can be picked up. A customer always receives a new gas card as part of an exchange or meter fit. This means the customer will need to insert the card in the meter, then visit the Front Office Provider to transact (they can do a zero vend) and then return and insert the card into the meter. This needs to be completed for 3 full cycles. Once the 3 vend process has completed then the CRA will be available for the customer to pick up on their card. (In some cases the CRA could come through after 2 vends but for completeness the Back Office Provider would advise a 3 vend cycle).

Once a CRA has been sent by a supplier regardless of whether the customers vend € (purchased credit) or carries out a zero vend or a combination of these, once the 3 vend process has been completed in full then the CRA will be available.

The above process also applies after a decommissioning/recommissioning of the meter. In some cases after this action is carried out the CRA can come through after one vend but again for completeness best advise a 3 vend cycle.

3.11 CV Value on the Meter

GNI send a BG3 file to the Back Office Provider weekly, updating the value of the CV zones. The Back Office Provider in turn, via a regional file, transmit this information to the meter via the Front Office Provider. Updated values are collected by customers when they vend. When the customer places the gas card back in the meter, the new CV value is applied.

Conversion Factor for PAYG – for information
For PAYG customers, billing of customers takes place at the meter so it is necessary that all of the information contained in IUS (GNI System) is also transmitted/available to the Pay as You Go meter.

The CV value is transmitted by GNI to Back Office Service Provider every week. Pay as You Go meters are not calibrated with the Meter Conversion Factor (MCF) and the MCF is not included in the data being transmitted to Back Office Service Provider each week. Therefore the MCF is bundled with the CV value being transmitted to Back Office Service Provider each week – to correct billing figures for Suppliers. A more detailed description of this is below – this is an FYI for you, in terms of understanding the elements of what's on the meter.

Details

NDM supply points (including Pay as You Go meters) measure the volume of gas consumed in m^3 whereas the Supplier is billed on the basis of energy consumed (in kWh). It is necessary to convert the metered volume into the equivalent energy value for billing purposes. This is achieved using the following general equation:

$E_{MR} = V_{MR} * MCF * CV/3.6$

Where:

E_{MR} = Equivalent energy value of the meter read in kWh

V_{MR} = Unconverted volume recorded by the meter in m^3

MCF = Metering Conversion Factor

CV = Calorific Value (gross) in MJ/m3 (at Standard Reference Conditions)

3.6 is Standard factor to convert from MJ to kWh

A generic MCF of 1.03648 should be used for the majority Residential NDM supply points in the gas network.
The CV of gas is measured using a chromatograph. There are a number of chromatographs on the network.

In addition to the daily allocation process to the NDM Suppliers, the FAR process also requires each individual NDM meter read to be reconciled against the corresponding FAR allocations – i.e. reconciliation at the NDM supply point level.

This in turn requires an energy conversion process at the NDM supply point level, this conversion process is performed by the Integrated Utility System ("IUS") billing system. The CV applied to NDM meter readings is the average daily CV of the assigned system chromatograph for the 60-day period prior to the meter read date for residential supply points. For credit meters the data used by suppliers to bill their customers corresponds to the data contained in the IUS.

For PAYG customers, billing of customers takes place at the meter so is necessary that all of the information contained in IUS is also transmitted/available to the Pay as You Go meter.

The CV value is transmitted by GNI to Back Office Service Provider every week. Pay as You Go meters are not calibrated with the MCF and the MCF is not included in the data being transmitted to Back Office Service Provider each week.

In summary - the MCF is bundled with the CV value being transmitted to Back Office Service Provider each week – to correct billing figures for suppliers

Here is sample content of the file sent. Zone 1 has a value of 39,033837 in the file sent to Siemens:

The last CV value for this day was 37.660.

- 37.66 * 1000000 = 37660000.
- The MCF is 1.03648.
- The value sent is 37660000 * 1.03648 = 39033837

3.12 Decommission/Recommission Meter

Fitters carry out any decommission/recommission of meters that are required for customers/Suppliers.

A decommission of the meter shuts down the meter, meter no longer in use.

A recommission of the meter resets the values of the meter and meter will be back in use.

The GIST/Service Card:

- Used by trained engineer to decommission / recommission the meter
- Clear faults and tampers and perform battery exchanges
- Load the system default values into the meter (Tariff Code 0)
- Can transfer customer information from old meter into new meter
- Option to reset the meter to last values or standard values

3.13 Emergency Credit

The Emergency Credit 'threshold' and 'limit' is specified by the Gas Supplier in their Regional Data.

Emergency Credit can be borrowed once the customer's purchased credit is at or below the 'threshold'.

Emergency Credit can only be borrowed if it has been fully repaid since the last time it was used.

When a customer is using only Emergency Credit, there is no debt or standing charge recovered by the meter (standing charge is accrued and then recovered when purchased credit is put into the meter and can also be cleared by a Credit Adjustment).

Emergency Credit is recovered once the customer has repaid their maximum gas debt recovery amount for the current week.

Emergency Credit can only be recovered from purchased credit (not from a Credit Adjustment)

Current Emergency Credit Limit is €20.

On initial set up of the meter, when the fitter initialises it and puts default information on the meter, the initial value for Emergency Credit is set to twice the EC Limit. Therefore this is currently €40. This is only valid on commissioning of the meter and the customer will pick up the agreed industry Emergency Credit Limit of €20 when they begin vending as part of their regional settings.

3.14 Department of Social Protection (DSP) Allowances

The DSP allowance for fuel can be applied to the Pay as You Go solution via a credit EUSI which would be available for the customer on vending if a supplier wants to avail of this method.

GNI understand that each supplier allocates this allowance differently. From a customer perspective, it would be beneficial for suppliers to outline how this is controlled to the customer on change of supplier or on new Pay as You Go meter fit.

3.15 Suspense Account

When a customer vends, the details of this transaction flows from the front office provider to the Back Office Provider. If the Back Office Provider cannot identify the GPRN, then the transaction will remain in the suspense account until such time as the GPRN is identified

A GPRN may not be identifiable if information is not aligned on the Back Office Provider portfolio – the meter ID, gas card ID and GPRN is the criteria for this

When a new PAYG meter is fitted – the first 3 vends will flow into the suspense account – after the 3rd vend these will flush out of suspense as the information is aligned.

Some transactions will remain in Suspense if the portfolio is not updated correctly via the BG1 messages from GNI.

Transactions may also flow into the suspense account as the gas card ID is not correct as per Siemens portfolio – usually as a result of a meter mix up.

The monies associated with the suspense account are held by the Front Office Providers. GNI actively monitor the suspense account on a monthly basis and carry out corrective actions where available.

3.16 Misdirected Payments

There is a monthly process in place in which a supplier is issued by GNI with a notification via email if they are subject to a misdirected payment. Suppliers are expected to settle the monies associated with this notification bi-laterally as GNI do not hold these funds.

This issue can arise when:

- A change of shipper message from GNI to Siemens is not processed correctly within GNI and therefore the Back Office Provider are not notified that a change of shipper has taken place
- A Pay as You Go meter mix up – this occurs when a fitter installs a meter and the details of the address or meter are not recorded correctly on GNI systems
- In some revenue protection cases.

Note: *It is expected of the Supplier to carry out due diligence on their side regarding query investigation and if at that stage they are unable to resolve the query to send to Meter Data Services in GNI or Siemens. The processes and documents referred to in this document will aid in the Shipper their investigations and to determine where to send their query if further investigation are required.*

4. Related Documentation

- **http://www.gasnetworks.ie/en-IE/Your-Meter/Prepaid-meter/**

- **http://www.gasnetworks.ie/en-IE/Gas-Industry/Services-for-Suppliers/Capacity-registerFAR/**

- **http://www.gasnetworks.ie/en-IE/Gas-Industry/Services-for-Suppliers/Prepay-metering/**

- There are a number of CRU publications and directions related to Pay as You Go metering such as CER/06/157 and CER/11/823. Publications can be searched for on the CRU website **www.cru.ie**

5. Front Office Provider

 Payzone

Payzone are the current Front Office Provider for the PAYG market.

Payzone's distribution of retail outlets can be found on their website: www.payzone.ie

Customers have a large choice of outlets to make gas top up purchases.

Front Office Providers are responsible for the maintaining a stock of gas cards in each outlet. Retailers typically charge a nominal fee of €1 to the customer when they purchase a replacement gas card.

6. Back Office Provider

Siemens are the Back Office Provider for the Pay as You Go Solution. They process requests from GNI and suppliers and send instructions to the Front Office Provider(s) and facilitate the flow of data to and from the meter.

The Back Office is the main engine of the Pay as You Go solution and Siemens are responsible for assigning suppliers to transactional data received from the Front Office Providers. Based on this, they inform the Front Office Provider(s) how much to pay each Supplier and the suspense account.

Siemens send data to suppliers and GNI on a daily basis based on transactions and following instructions from GNI and Suppliers, send data to the meter.

7. Market Process Definitions – MPD's

Market Process Definitions are agreed Market Processes within the Retail Market. A full list of the Market Processes are available on the GNI website, some relate to the NDM Market in general, others are specific to Pay as You Go metering.

A full list is available via the link below:

https://www.gasnetworks.ie/corporate/gas-regulation/service-for-suppliers/retail-market-messaging/

8. Tariffs

As part of the Additional Tariff Pages project, implemented in July 2021, Suppliers have the facility to have multiple tariffs. Each supplier is allocated a block of Tariff Pages (each Tariff Page has 11 tariff codes 0 – 10)

The Industry default Tariff Page 2 is still available and Suppliers in the Irish PAYG Market on 1st July 2021 can still avail of their allocated Tariff code on Tariff Page 2.

With the expansion of Tariff Pages, tariff updates are no-longer handled manually. New SH4 and SH5 EUSI flows to allow updates to page settings and tariff settings were introduced.

Note: *Suppliers are not able to create their own new Tariff Pages directly. Should a supplier require a new Tariff page they should contact their Siemens Account Manager.*

8.1   Tariff Code Update

At the request of the designated supplier, tariff values corresponding to a particular tariff code are amended via a SH5 EUSI.

The SH5 will include the values (Standing charge in units of Euros, Tariff block prices in units of cents) which the meter will use to regulate and measure gas consumption. Any additional charges such as carbon tax will need to be incorporated into the submitted values as the meter will otherwise not account for these additional charges. Also the SH5 will show the effective date of when the Tariff Change should be undertaken. This effective date is the date that the Supplier has informed their end users that a price change will occur.

The SH5 will be processed by the Back Office Provider upon receipt and downloaded to the Front Office Provider the following Friday. This allows the prices to be downloaded to the Front Office providers as a future dated change to Regional Data so that end users potentially pick up the new prices and load them on to the meter in advance.

The prices only go live on the effective date stated on the SH5. This mitigates the issue where an end user, who does not vend regularly or "bulk buys", could be still be holding the old, pre-price event values on their meter for a number weeks after the effective date has elapsed.

Following the download, by the Back Office Provider of the new prices within the regional data file, the Front Office provider will immediately issue, the updated regional data to all of their terminal estate, so that the following morning this regional data (and therefore the amended pricing within the data) is available for customers to pick when they vend. The changes will only apply to the end users who hold that particular code (the one quoted in the SH5) on the meter so that if a customer's meter is holding the incorrect code they will continue to follow the values corresponding to that incorrect code i.e. it wasn't subject to change.

As this is Regional data and is presented to the card during every vend, there is no expiry period.

8.2   Tariff Page Setting Update

At the request of the designated supplier, tariff page level settings corresponding to a particular tariff Page are amended via an SH4.

The SH4 will include values for :

- Emergency Credit Threshold

- Emergency Credit Limit

- Budget Increment Step Size (BISS)

- Gas Allocation Rate (GAR)

Note: *These are currently industry agreed values and are not updatable at present by suppliers. Any Industry agreed update will be requested by GNI.*

8.3   How Tariffs Operate

In the gas Pay as You Go system there are 11 tariff codes (0-10) available to suppliers on each of their own Tariff Pages. Tariff code 0 on Industry Default Tariff Page 2, is allocated as the Industry default standard tariff code. The purpose of Industry default code will be explained later.

Tariff Codes and Tariff Values

Behind each of these tariff codes sits the individual and defined tariff values and this information forms part of what is referred to as Regional Data. This regional data is controlled and managed by Siemens, as part of the Back Office service. It is stored centrally on the Back Office Provider Tariff Engine.

Each evening, the latest file containing this Regional Data is forwarded to the Front Office provider, who in turn issue it to their respective terminal estates. As and when end users vend at a Point of Sale terminal, the card, during the transaction, will always pick up the latest version of regional data containing the most up to date information.

This will overwrite the previous regional data which was stored on the meter when the card is inserted regardless as to whether the data has been subject to a change.

New Meter Installation

When a meter is first installed by an engineer it will be commissioned using a GIST (Service Tool). This service tool contains the latest regional data but will apply the values corresponding to Tariff Page 2 code 0 (the industry default standard tariff).

When a meter is registered with a Supplier (and an end user), a BG1 will be issued by Gas Networks Ireland to the Back Office Provider. The BG1 contains a cluster of messages and within that cluster will be a tariff code message which will be the default tariff for the Supplier acquiring that Meter Point. Each Supplier is allocated with their own tariff page following entry to the gas Pay as You Go system in Ireland.

When the end user picks up the BG1 messages (which could take as many as 3 initial vends) containing the tariff code and following the card being inserted into the meter, Tariff code 0 will be overwritten by the new tariff code provided by the BG1. The meter will, from that point, follow the tariff values of this new tariff code and no longer follow the values corresponding to Tariff code 0.

Decommission/Recommission Meter

When a meter undergoes a decommission/recommission using the service tool, it contains the latest regional data but will apply the values corresponding to Tariff Page 2 code 0 (the industry default standard tariff). Upon email notification from GNI of this work at the meter, suppliers can follow the steps outlined below under the heading SH3 (EUSI Types UST and EST) in order for the end user to be returned to the appropriate tariff code.

Change of Supplier

When the Change of Supplier process occurs, another BG1 is issued containing the new Supplier's default tariff code. Again, when this message is picked up the previous code will be overridden by the new one and the meter will then follow the values corresponding to that new code. If required, the new supplier can then move the customer onto the appropriate tariff code.

Meter Exchange

Upon a Pay as You Go meter exchange, the fitter will move across all the data from the old meter to the new – including the tariff information.

However if it is not possible for the fitter to transfer the data they will set the meter to industry default values. GNI will then send a BG1 exchange message to the Back Office Provider who in turn will initiate a message to the Front Office Providers terminal to pick up for the customer to pick up. This may take 2/3 vends to complete.

8.4   Customer Specific Tariffs

There is an option to utilise functionality known as customer specific tariffs. This is not used currently in the market and is a legacy function. However there are some customers on this tariff mechanism and these can be identified through tariff reporting from your Back Office Provider.

A SH3 EUSI can be applied to change a customer's tariff values known as a EUSI type EST (end user specific tariff). This is where you may want to offer completely different settings / tariff to those held behind its allocated tariff code.

This EUSI type EST will provide the user, following pick of the message, with a ring fenced customer specific tariff.

A ring fenced, customer specific tariff means it will be ring fenced in the sense that it will no longer follow regional data so after a price event on the Back Office Provider Tariff Engine, regardless of how many vends and subsequent regional data pick-ups, the values will remain fixed and unchanged.

The values can only be changed by either sending another EUSI type EST (and hope the end user picks it up) or by sending a EUSI type RST (regional Reset). This "kicks down" the ring fence and re-aligns the meter to follow Regional Data. A Regional reset should be accompanied by a EUSI type UST to re-confirm the tariff code the Supplier would like the meter/ end user to follow.

8.5 Tariff Assurance

Automated Tariff Assurance, checks all incoming transactional data (reporting the current tariff settings on the meter) against the tariff settings held on the Back Office Provider customer database.

These tariff settings on the Back Office Provider Customer Database are derived from the latest tariff instruction received from the Supplier.

If there is a mismatch between what is received and what is held on the Database after a prescribed number of returned vends (this is configurable e.g. 1 vends), then the Back Office Provider will issue an automated corrective message.

The solution does not address those customers on a ring fenced, customer specific tariff as it only changes the tariff code, not the tariff values. There is an assumption here that all meters follow regional data and the code will apply its corresponding values contained in the regional data.

8.5.1 Tariff Assurance Reports

The Tariff Assurance solution is accompanied by reporting which records the automated corrective actions so that suppliers have an audit trail as no message acknowledgement will be returned. Suppliers are required to give correct contact information to the Back Office Provider in order to receive these reports. The reports and naming conventions are set out as follows;

Portfolio Report

The activity report shall contain one row for each consumer record held by the solution at the time of generation. Each row shall contain the following fields

- GPRN
- START DATE
- END DATE
- GASCARD NUMBER
- METER NUMBER
- SHIPPER ID
- CUSTOMER STATUS
- TARIFF CODE

The portfolio report file has the following naming convention: TCA--PORT-.CSV

Where:

TCA = Indicating the Tariff Code Assurance solution

SHPR = Indicating the report is produced for each Gas Shipper ID

PORT = Indicating this is the portfolio report

DDMMYYYY = Indicating the day, month and year of the reports generation

Summary Report

The summary report shall contain a single one row of data containing the following fields:

- Total Command Messages issued in the month

- Total Command Messages with successfully acknowledgements in the month

- Total Command Message with unsuccessful acknowledgements in the month

It shall have the following naming convention: TCA--SUM-.CSV

Where:

TCA = Indicating the Tariff Code Assurance solution

SHPR = Indicating the report is for a given shipper

SUM = Indicating this is a summary report

DDMMYYYY = Indicating the day, month and year of the reports generation

Detail Report

The detail report shall contain one row for each consumer record held by the solution at the time of generation. Each row shall contain the following fields:

- GPRN

- Status (Pending, In Progress, Corrected, Not Corrected, Account Closed)

- Acknowledgement Date (if received)

- Meter Tariff Code

- Portfolio Tariff Code

The detail report file shall have the following naming convention: TCA--DTL-.CSV

Where:

TCA = Indicating the Tariff Code Assurance solution

SHPR = Indicating the report is for a given shipper

DTL = Indicating this is a detail report

DDMMYYYY = Indicating the day, month and year of the reports generation

9. Customer Scenarios

This section aims to outline the different types of customers that use the Pay as You Go solution, and the impact of each in terms of the file flows and information.

TYPE	DESCRIPTION	SYSTEM IMPACT	COMMON ISSUES/QUERIES
1	Customer Regular Vending Summer and Winter	• Regular Transaction Files being sent to Suppliers • Regular GP Reads being sent to GNI and processed as market messages • Regular Payments being made to Suppliers • EUSI Messages/Regional Files Updates regularly picked up	• If a supplier is not seeing vend information but is receiving regular GP reads, there may be a meter mix up or system issue where the information is not correctly aligned. E.g. misdirected payment.
2	Customer Regular Vending Winter, no Vending Summer	• Transaction files sent to suppliers in winter only • GP reads processed in winter only • Payments to suppliers are seasonal	• General Debt built up during the summer months • Any Gas Debt not being recovered in summer months. • EUSI Messages, Regional file messages not picked up in the summer months
3	Customer Regular Vending Winter, Vending in Summer but not putting card in the meter	• Transaction files sent to suppliers regularly • Payments to suppliers regularly • No GP reads in the summer months as new information is not coming back from the meter	• EUSI messages picked up but perhaps not applied to the meter • Regional messages picked up but again perhaps not applied to the meter • General Debt can accumulate during summer months • Any Gas Debt will not be recovered during summer months
4	Customer replaces their gas card each winter	• New information being paired in the system each time this occurs	• Suspense account holds money each time the gas card is replaced until a number of vends will release it again

10. Contact Channels

There are many stakeholders within the Pay as You Go solution and when queries and issues occur, the below contact channels should be used.

ITEM	SIEMENS	FRONT OFFICE	GNI
Surcharging		✔	
Gas Card Stock		✔	
Vending outlet query		✔	
Settlement query	✔	✔	
No Gas			✔
Regional Message	✔		
EUSI Messaging	✔		
Transaction Query	✔		
Overall Market Issue			✔
Day to day meter queries			✔
Escalation			✔

Technical Aspects of Pay As You Go Metering

11.   Meters

11.1 Meter Types, Descriptions/Photos and Population in the Field

Currently GNI fit/exchange L210 Pay as You Go meters, of the current meter population over 90% are L210/L200A's, the remaining types are categorised as legacy Pay as You Go meters which are subject to meter replacement programs in place in GNI;

1. L210

2. L200A

3. L200/Ironbridge

4. Q-Smart

5. Quantum

The following are a visual of the Pay as You Go meters:

L210	L200A	L200/IRONBRIDGE

QSMART	QUANTUM
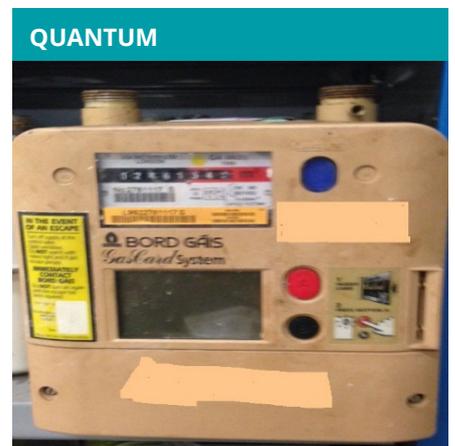
11.2 Screen Information for L210/L200A Meters

Press Button A to access

•   On first press - Customer Credit Screen

•   On second press - Owed Screen

•   On third press - Meter Index (L210 only)

Press the A button for 5 seconds to access the remaining screens – in this order:

SCREEN NUMBER	EXPLANATION
Sc 27	Gas Debt Remaining
Sc 25	Gas Debt Weekly Min
Sc 26	Gas Debt Weekly Max
Sc 24	Gas Debt Recovery Rate %
Sc 00	Last Credit (Amount & Date)
Sc 01	Last Amount for Debt
Sc 02	Last Amount for Emergency Credit
Sc 03	Last Amount for Gas
Sc 31	Non Gas Debt Remaining
Sc 29	Non Gas Debt Weekly Min
Sc 30	Non Gas Debt Weekly Max
Sc 28	Non Gas Debt Recovery Rate %
Sc 32	Gas Card Ref Number
Sc 33	Last Credit Adjustment (Amount & Date)
Sc 22	Emergency Credit Limit
Sc 21	Emergency Credit Threshold
Sc 04	Time/Date
Sc 05	Tariff Cost 0
Sc 06	Tariff Cost 1
Sc 07	Tariff Cost 2
Sc 08	Tariff Cost 3
Sc 09	Tariff Cost 4
Sc 10	Tariff Cost 5
Sc 17	Standing Charge
Sc 11	Tariff Width 0
Sc 12	Tariff Width 1
Sc 13	Tariff Width 2
Sc 14	Tariff Width 3
Sc 15	Tariff Width 4
Sc 16	Calorific Value (C.V)
Sc 20	Billing Cycle
Sc 23	Gas Allocation Rate (GAR) %

11.3 Screen Information for Quantum & Ironbridge/L200 Meters

Press Button A to access

•   On first press - Customer Credit Screen

•   On second press - Owed Screen

Press the A button for 5 seconds to access the remaining screens – in this order:

SCREEN NUMBER	EXPLANATION
Sc 00	Last Credit (Amount & Date)
Sc 01	Last Amount for Debt
Sc 02	Last Amount for Emergency Credit
Sc 03	Last Amount for Gas
Sc 04	Time/Date
Sc 05	Tariff Cost 0
Sc 06	Tariff Cost 1
Sc 07	Tariff Cost 2
Sc 08	Tariff Cost 3
Sc 09	Tariff Cost 4
Sc 10	Tariff Cost 5
Sc 11	Tariff Width 0
Sc 12	Tariff Width 1
Sc 13	Tariff Width 2
Sc 14	Tariff Width 3
Sc 15	Tariff Width 4
Sc 16	Calorific Value (C.V)
Sc 17	Standing Charge
Sc 20	Billing Cycle
Sc 21	Emergency Credit Threshold
Sc 22	Emergency Credit Limit
Sc 23	Gas Allocation Rate (GAR) %
Sc 24	Gas Debt Recovery Rate %
Sc 25	Gas Debt Weekly Min
Sc 26	Gas Debt Weekly Max
Sc 27	Gas Debt Remaining
Sc 28	Non Gas Debt Recovery Rate %
Sc 29	Non Gas Debt Weekly Min
Sc 30	Non Gas Debt Weekly Max
Sc 31	Non Gas Debt Remaining

11.4 Screen Information for Q-Smart Meters

Press Button A to access

• On first press - Customer Credit Screen

• On second press - Owed Screen

• On third press - Recommended Gas Purchase

Press the A button for 5 seconds to access the remaining screens – in this order:

SCREEN NUMBER	EXPLANATION
Sc 34	Weekly Gas Cost
Sc 35	General Debt
Sc 36	Emergency Credit Debt
Sc 27	Gas Debt Remaining
Sc 26	Gas Debt Weekly Max
Sc 00	Last Purchased Credit
Sc 01	Last Amount for General Debt
Sc 02	Last Amount for Emergency Credit
Sc 03	Last Amount for Credit
Sc 31	Non-Gas Debt Remaining
Sc 30	Non-gas Debt Weekly Max
Sc 32	Gas Card Ref Number
Sc 33	Credit
Sc 04	Time
Sc 17	Standing Charge
Sc 23	Gas Allocation Rate (GAR) %

12. File Flows between Suppliers and Siemens

The purpose of this section is to define the file formats for between the Back Office Service Provider and Suppliers.

The section below covers the detailed specification of the interfaces between suppliers and the Back Office Service Provider as outlined in the following market processes which can be located on GNI's website;

• MPD31 – Pay as You Go Vending Transaction

• MPD33 – Financial Settlement

• MPD34 – Management of Suspense Transactions

• MPD30 – Gas Debt on the Pay as You Go Meter

12.1 General File Processing Rules

12.1.1 Delivery Method

Suppliers must deliver files using a secure FTP (SFTP) link. Siemens will deliver all files bound for suppliers via using a SFTP link.

** NOTE *Encrypted email will only be available as a secondary fall back method in the event of technical failure of an SFTP link.*

12.1.2 Delivery time frames

Files can be sent to the Back Office Service Provider at any time after 5am but they will only be processed as follows:

Monday-Friday (excluding bank and public holidays) 08:00hrs to 20:00hrs

Saturday 08:00hrs to 18:00hrs

EUSI Messages can be marked as Urgent or Non-Urgent

• Non-Urgent files will be actioned and sent to the Front Office overnight.

• Urgent files will be actioned and sent to the Front Office (as per agreed SLAs) during the above times.

12.1.3 Files received

Suppliers will receive a full suite of files from the Back Office Service Provider on a daily/weekly/monthly basis. These files are outlines in the sections below.

The Back Office Provider will deliver overnight files between 04:00hrs and 08:00hrs. Files will always be generated even when there are no data records to be included.

Files will be sent every day including weekends and public & bank holidays. However, a Supplier will only receive an

• SI22 file in response to an SH3 file

• SI23 file in response to an SH4 file

• SI24 file in response to an SH5 file.

12.1.4 File size limits

The maximum number of SH3 records that can be sent in a file will be 1000. If more than 1000 requests are required further files to a maximum of 1000 records should be sent.

12.1.5 File format

The files are comma delimited and all records are separated by carriage return, line feed.

All files sent and received will have the following structure:

FILE HEADER (mandatory)

    Detail record(s) (optional)

    (Can be repeated to maximum allowable number of records)

FILE FOOTER (mandatory)

12.2 File Naming Conventions

The files will be named in the following format: **SUPPLIER ID(3),DATE(5) SEQUENCE NUMBER(3),FILETYPE(3) _csv.**

 e.g. FLG07123001SI2_csv

- **Supplier ID**   A three digit code of the Supplier and PAYGSP;
- **Date**   Julian Date YYDDD (YY –Year, DDD – Day of the Year)
- **Sequence No**   A sequential number unique to each Supplier/file type incremented for each file created reset to 001 every Julian date.
- **File Type**   e.g. SI1, SI2, SI3, SI12, SI22, SI23, SI24, SI25, SI26, SH3, SH4 or SH5

Where files are distributed as an e-mail attachment the file should be created with a filename as described above.

Where files are distributed by FTP or Secure FTP, the sender will give the file a temporary file name prior to sending. Once the ftp process has been completed the sender will rename the file to the name described above. This is to prevent the sender and receiver both trying to access the file at the same time. The receiver should only pick up the file when the correct filename format is found.

12.2.1 File Level Rejection (PAYGSP)

The file will only be deemed to be valid if the following criteria are met:

- The File naming convention has been met
- The Date of the File is not in the Future
- The Sequence Number is valid
- Sender is a recognised Supplier and the Receiver is SES
- The Version Number is as agreed between the Sender and Receiver
- The record count within the file is less than the record Limit

If the file is rejected as a whole, e.g. the record limit is exceeded, the file is corrupt etc the whole file will returned with an extension of .REJ. An email will also be sent to the Supplier by the PAYGSP giving the reason for the file rejection.

12.2.2 File Formats

12.2.2.1 FILE Header Format

All files will contain a header record. The format for this header is the same in all files.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Record Type	String	1	'H' for Header
File name	String	20	Name of the original file if this is a Response File
Sender	String	3	SES, GNI, or Supplier ID
Receiver	String	3	SES, GNI, or Supplier ID
Date/Time	String	14	YYYYMMDDHHMMSS
Version Number	Numeric	3	001-999 agreed between sender and receiver

The version Number will relate to the current file format version therefore currently 001.

e.g. H,SUP07123001SI2_csv, SES,SUP,20070503121212,001

12.2.2.2 FILE Footer Format

All files will contain a footer record. The format for this footer is the same in all files.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Record Type	String	1	'F' for Footer
File name	String	20	Name of the original file if this is a Response File
Sender	String	3	SES, GNI, or Supplier ID
Receiver	String	3	SES, GNI, or Supplier ID
Date/Time	String	14	YYYYMMDDHHMMSS
Version Number	Numeric	3	001-999 agreed between sender and receiver
Record Count	Numeric	5	Number of Valid records
Invalid Record Count	Numeric	5	Number of Invalid records for Response File

The version number will relate to the current file format version therefore currently 001.

The Date/Time contained within the footer must be the same as the header Date/Time.

e.g. F,SUP07123001SI2_csv, SES,SUP,20070503121212,001,12345,1

12.3 Transaction files

The overnight process will create a summary file associated to each transaction file, summarizing the number of transactions and the transaction amount for each Supplier and suspense for that day.
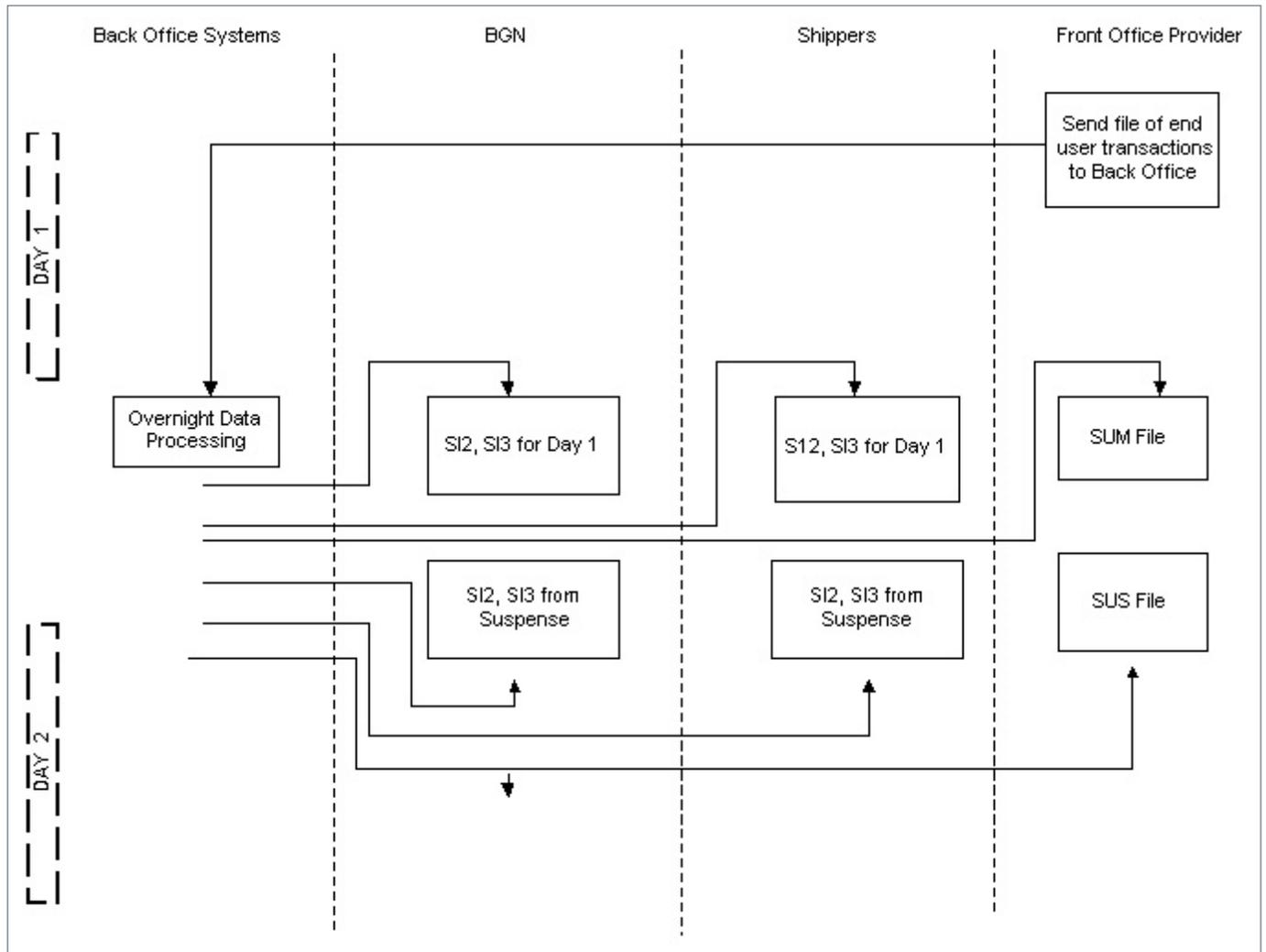
12.3.1 SI2 - Cash Transaction Record Format

Each S12 record will include the Supplier transaction ID, a unique 21digit reference number allowing the Supplier to match the transaction against any End User query as this number is printed on their receipt.

Each Supplier will receive two sets of SI2 files each day. One for normal transactions, one for transactions released from suspense. The transaction & summary files can be 'paired' using the sequence number in the file name.

SES will send **one** consolidated SI2 file which shows transactions from Payzone.

The 2 digit outlet prefixes would be as follows:

- **PZ** for Payzone outlets.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Supplier ID	String	3	Supplier ID Number
GPRN	String	7	
Meter Serial Number	String	12	
Gas Card Reference Number	String	21	Legacy
Outlet_Number	String	12	The outlet where the transaction was made. The outlet format is a two character prefix denoting the terminal estate that the outlet resides upon, followed by its numeric identifier: [PZ]+[nnnnnnnnnn] = Payzone outlet
Supplier Transaction ID	Alphanumeric	21	The Supplier transaction id comprises of a two character prefix denoting the terminal estate that transaction originated from, followed by a numeric Supplier transaction id. [PZ]+[1 – 9999999999999999999]
Date/Time of Transaction	String	14	YYYYMMDDHHMMSS
Amount	Numeric	5	99999
Suspense Code	String	3	Blank if normal transaction, populated by REL if released from Suspense File

e.g. SUP,1234567,L0760000001M,,PZ0123456789,PZ1,20070911122334,5,

12.3.2 SI3 - Transaction Summary Record Format

Each Supplier will receive two sets of SI3 files each day. One for normal transactions, one for transactions released from suspense. The transaction & summary files can be 'paired' using the sequence number in the file name.

SES will send **one** consolidated SI3 file which will have front office codes for Front Office Provider Payzone (ALPH).

FIELD NAME	TYPE	SIZE	DESCRIPTION
Front Office Code	String	4	ALPH = Payzone
Supplier ID	String	3	Supplier ID as described above
Total Supplier Transactions	Numeric	5	Number of Transactions
Total Supplier Transaction Value	Numeric	7	Value of Transactions

e.g. ALPH,SUP,3,25

12.3.3 SI12 - Debt Record Format

Each Supplier will receive a file of SI12 records each day. A SI12 record is generated every time an end-user transacts at the Front-Office. The SI12 record includes the following data from the last time the card was inserted in the meter:

- The existing Gas Debt Value remaining on the meter. Suppliers can use this value to ascertain the remaining gas-debt for their accounting purposes. *This Gas-Debt value cannot be over written, any subsequent GDT EUSI will be added to the existing debt on the meter. If a negative GDT EUSI is applied which exceeds the existing Gas Debt Value on the meter, the excess will appear as a credit.*

- The Gas Debt Recovery values in effect on the meter – Debt Recovery %, Gas-Debt Weekly Max & Min. These fields can be overwritten by any subsequent valid GDT sent by the registered Supplier.

- The existing Emergency Credit debt.

- Logs of the last 3 Credit Adjusts & Gas Debts applied to the meter. These are not time-stamped.

On completion of a Change of Shipper, a GDT EUSI is generated by the PAYG back-office to set the Debt Recovery Rate = 0, thus ensuring that Debt Recovery is disabled on a Change of Shipper. With the implementation of CR36, all existing gas-debts will be removed by a subsequent GDT after the completion of a CoS. Incoming suppliers will not then receive a SI12 record, until they apply a GDT EUSI of their own to the meter. Suppliers are expected to manage Debt-Recovery post Change of End-Users.

• SES will send **one** consolidated SI12 file which will include transactions from Payzone.

The 2 digit outlet prefix would be as follows:

• **PZ** for Payzone outlets.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Supplier ID	String	3	Supplier ID Number
GPRN	String	7	
Meter Serial Number	String	12	
Gas Card Reference Number	String	21	Legacy
Outlet_Number	String	12	'SCD' where the data is from service card data or the outlet where the transaction was made. The outlet format is a two character prefix denoting the terminal estate that the outlet resides upon, followed by its numeric identifier: [PZ]+[nnnnnnnnnn] = Payzone outlet
Supplier Transaction ID	Alphnumeric	21	'0' where the data is from service card or Supplier transaction id. The Supplier transaction id comprises of a two character prefix denoting the terminal estate that transaction originated from, followed by a numeric Supplier transaction id. [PZ]+[1 – 999999999999999999]
Date/Time of Transaction	String	14	YYYYMMDDHHMMSS or 19000101235959 for service card data
Gas Debt Indicator	String	1	'+' or '-'
Gas Debt	Numeric	8,2	999999.99 Euro
Gas Debt Recovery Rate	Numeric	2	1 to 99%
Gas Debt Weekly Min	Numeric	8,2	0 to 999999.99 Euro
Gas Debt Weekly Max	Numeric	8,2	0 to 999999.99 Euro
Emergency Credit Limit	Numeric	6,2	9999.99 Euro
Emergency Credit Debt	Numeric	8,2	999999.99 Euro
Credit Adjustment Log 1 Indicator	String	1	'+' or '-'
Credit Adjustment Log 1 Amount	Numeric	8,2	999999.99 Euro
Credit Adjustment Log 2 Indicator	String	1	'+' or '-'
Credit Adjustment Log 2 Amount	Numeric	8,2	999999.99 Euro
Credit Adjustment Log 3 Indicator	String	1	'+' or '-'
Credit Adjustment Log 3 Amount	Numeric	8,2	999999.99 Euro
Gas Debt Log 1 Indicator	String	1	'+' or '-'
Gas Debt Log 1	Numeric	8,2	999999.99 Euro
Gas Debt Log 2 Indicator	String	1	'+' or '-'
Gas Debt Log 2	Numeric	8,2	999999.99 Euro
Gas Debt Log 3 Indicator	String	1	'+' or '-'
Gas Debt Log 3	Numeric	8,2	999999.99 Euro

e.g. SUP,1106781,L0755050700X,206251928,PZ0700045014,PZ128864649,20120926090737,+,0.00,0,0.00,0.00,5,0.00, +,0.00,+,0.00,+,0.00,+,0.00,+,0.00,+,0.00

13. Data Warehouse Reports

13.1 Data Warehouse Reports

A Data warehouse was commissioned by GNI in order to allow Siemens to capture, store and report on meter data.

The Data warehouse held by Siemens provides four reports to Suppliers at agreed intervals. Suppliers are required to inform Siemens of the correct contact information in order to receive these reports. A number of other reports are sent to GNI from Siemens from this data warehouse such as Meter Fault Report, Low Battery Report etc.

The following are a set of reports that the Back Office Provider sends to suppliers to assist in monitoring their customer activity.

Tariff Monitoring Report (SI25 Report)

Tariff monitoring reporting is issued monthly per supplier to identify those sites which are on the incorrect tariff. The SI14 report was updated to the SI25 report as part of the new flows introduced in the Additional Tariff Pages project in July 21.

Using this information, the supplier can then issue the appropriate corrective action via an End User Specific instruction (flow).

This mitigates the costs involved in undercharging customers and indeed the cost involved in addressing the scenario of an overcharged customer.

Customer Account Report (SI26 Report)

Customer account report is issued daily per supplier it contains the latest data Siemens have received for the GPRN.

The customer account file (SI15) was updated to the SI26 file as part of the new flows in the Additional Tariff Pages project in July 21 and includes

- CV value.
- Gas account Pre Paid value.
- Gas account Debt value.
- The frequency of report is Daily.

Meter Point Report (SI18 Report)

The output for this report would be based on the latest non closed customer record.

Data Items shall include: gas card reference number, GPRN, Meter ID.

The frequency of report is quarterly.

Prepayment Vend Performance Analysis report (SI19 Report)

The output is a summary of the average vend. Frequency of Vends, trending of vends in winter and summer. The frequency of this report is annually.

13.1.1 File Naming Conventions

The purpose of this section below is to show the file format for the report files. Delimited and all records are separated by carriage return, line feed. All field sizes shown are the maximum sizes for the fields.

The files will be named in the following format:
SHIPPER ID(3),DATE(5) SEQUENCE NUMBER(3),FILETYPE(N) _csv.

e.g. FLG07123001SI2_csv

- **Shipper ID**   A three digit code of the Shipper.

- **Sequence No**   A sequential number unique to each Shipper/file type incremented for each file created reset to 1 every Julian Date.

- **Date**   Julian Date YYDDD

- **File Type**   A 3 or 4 character file identifier e.g. SI2, SI12

13.1.2 File Header Format

The header for each of the file types are the same format

FIELD NAME	TYPE	SIZE	DESCRIPTION
Record Type	String	1	'H' for Header
File name	String	20	Name of the original file if this is a response file
Sender	String	3	SMS, GNI, Supplier ID
Receiver	String	3	SMS, GNI, Supplier ID
Date/Time	String	14	YYYYMMDDHHMMSS
Version Number	String	3	001-999 agreed between

Version Number shall relate to the Issue status of the document, therefore currently 001.
e.g. H,SUP07123001SI2_csv, SMS,SUP,20070503121212,001

13.1.3 The Record Formats

13.1.3.1 SI25 Tariff Monitoring Record Format

This report will show the latest data we have received for the GPRN. Frequency of report shall be monthly.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Shipper ID	String	3	Shipper ID Number
GPRN	String	7	
Meter Serial Number	String	12	
Gas Card Reference Number	String	21	
Meter Read Date / time	DateTime	14	YYYYMMDDHH24MMSS
CS Tariff Code	String	1	C or R
CS Tariff Charge	String	1	C or R
Tariff Change Meter Read	Number	8,2	999999.99
Tariff Code	Number	2	99
Tar val cost 1	Number	5,3	99.999
Tar val cost 2	Number	5,3	99.999
Tar val cost 3	Number	5,3	99.999
Tar val cost 4	Number	5,3	99.999
Tar val cost 5	Number	5,3	99.999
Tar val cost 6	Number	5,3	99.999
Tar val standing charge	Number	6,4	99.9999
Tar val width 1	Number	5,3	99.999
Tar val width 2	Number	5,3	99.999
Tar val width 3	Number	5,3	99.999
Tar val width 4	Number	5,3	99.999
Tar val width 5	Number	5,3	99.999
Tariff ITime	DateTime	14	YYYYMMDDHH24MMSS Future proof
Tarrif Page	Number	3	999 (Tariff page of GPRN from 1 to 250 inclusive)

e.g. SUP,0804599, L1155006377M,0804599,20130212213713,C,R,1998.14,
,2,0,0,0,0,0,8.419,.3285,0,0,0,0,0,20130212213713,8

13.1.3.2 SI26 Customer Account Record Format

This report will show the latest data we have received for the GPRN. Frequency of report shall be daily.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Shipper ID	String	3	Shipper ID Number
GPRN	String	7	
Meter Serial Number	String	12	
Gas Card Reference Number	String	21	
Meter Read Date / time	DateTime	14	YYYYMMDDHH24MMSS
EC Threshold	Number	6,2	9999.99
EC Limit	Number	6,2	9999.99
BISS	Number	6,2	9999.99
Gas acct Prepaid	Number	8,2	999999.99
Gas acct gen debt	Number	8,2	999999.99
Gas acct EC debt	Number	8,2	999999.99
Gas debt	Number	8,2	999999.99
CV Val	Number	6,3	999.999
Purchase Amount	Number	5	99999
Txn Date	DateTime	14	YYYYMMDDHH24MMSS
TarifflTime	DateTime	14	YYYYMMDDHH24MMSS
Tariff Code	Number	2	99
Tar Val Cost 5	Number	5,3	99.999
Tar Val Cost 6	Number	5,3	99.999
Tar Val Standing Charge	Number	6,4	99.9999
Credit Adjustment Log 1	Number	8,2	999999.99
Credit Adjustment Log 2	Number	8,2	999999.99
Credit Adjustment Log 3	Number	8,2	999999.99
Tariff Page	Number	3	999 (Tariff page of GPRN from 1 to 250 inclusive)

e.g. SUP,0804599,L1155006377M,0804599,20120212213720,5,5,1,2.91,0,0,98.61,39.24,10,20130412122020, 201304121 22020,0,0,6.21,0.1623,0,0,0,8

13.1.3.3 SI18 Meter Point Record Output Format

This is a quarterly report showing the latest meter dump we have

FIELD NAME	TYPE	SIZE	DESCRIPTION
Shipper ID	String	3	Shipper ID Number
GPRN	String	7	
Gas Card Reference Number	String	21	
Meter Serial Number	String	12	

e.g. SUP,0804599,0804599, L1155006377M

13.1.3.4 SI19 PAYG Vend Performance Analysis Record Output Format

This is an annual report which will show a summary of the average vend. Frequency of Vends, Trending of vends in winter and summer.

There will be 2 record types. Record type 1 will hold the total values for the season. Record type 2 will hold the percentages for the season.

There will be a record type 1 followed by 4 record type 2 for the winter season.
This will be repeated for the summer season.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Type	String	25	Record Type 1
Description	String	25	Winter Totals or Summer Totals
Number of customers	Number	6	999999
Number of transactions	Number	8	99999999
Value of transactions	Number	10	9999999999

FIELD NAME	TYPE	SIZE	DESCRIPTION
Type	String	25	Record Type 2
Description	String	25	Description of the values shown e.g. > Weekly, >fortnightly <weekly, >monthly<fortnightly, >Monthly
% of Vends	Number	4.2	99.99
% of Euros per group	Number	4.2	99.99
% of End Users	Number	4.2	99.99
Ave Vend	Number	2.2	99.99

e.g. 1,Winter Totals,68027, 1856651, 34466895

e.g.2. > Weekly,48.27, 39.61, 25.18,14.84,

13.1.4 File Footer Format

For each type of files, have the same footer format.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Record Type	String	1	'F' for Footer
File name	String	20	Name of the original file if this is a response file
Sender	String	3	SMS, GNI, Supplier ID
Receiver	String	3	SMS, GNI, Supplier ID
Date/Time	String	14	YYYYMMDDHH24MMSS
Version Number	Numeric	3	001-999 agreed between

Version Number shall relate to the Issue status of the document, therefore currently 001.

The Date/Time contained within the Footer will be the same as the Header Date/Time.

E.g. F,SUP07123001SI2_csv, SMS,SUP,20070503121212,001

F,SUP07123001SH3_csv, SMS,SUP,20070503121212,001

14. EUSI Messages

14.1 EUSI Messages

A EUSI is a customer specific message that a supplier sends via the Back Office Provider system to a single customer.

Validation rules:

All data Items will be validated against the ranges/formats specified in the layout below.

- If the Back Office Provider receives an instruction from a Supplier that is not registered to the GPRN the request will be rejected.

- EUSI with a Date/Time in the future will be rejected.

There are no additional data items required after the EUSI type if the Reset Customer Values (RST) instruction is being sent.

14.1.1 Validation and Rejection of EUSI Messages

If the SH3 file is valid and processed then an SI1 acknowledgement file, will be sent back to the Supplier by the Back Office Provider once an acknowledgement has been received from the meter. If no acknowledgement is received within the configured EUSI message timeout period then the Supplier will receive an expired message acknowledgment in the SI1 file.

The Default EUSI message timeout period is 60 Days.

In September 2019 Siemens implemented the EUSI Extension Solution whereby the timeout period for Gas debt/Credit adjustment messages can be extended upon request from Suppliers.

- The increased lifespan of Gas debt/Credit adjustment messages is configurable by each Supplier

- Seasonal adjustments are facilitated (i.e. Suppliers can avail of longer timeout period in the Summer when vends are less frequent)

Two seasons are available

Winter Expiry period is Oct 1st to March 31st and

Summer expiry period is 1st April to 30th September

Suppliers should sent request to update the timeout extension period for Gas debt/Credit adjustment messages directly to Siemens.

When a Supplier sends an SH3 file, containing EUSI records, they will receive:

Either:

An **SH3 file with an extension of REJ** if the whole **SH3 file** has been rejected.
Or
An **SI22 file** with any **individual EUSI level rejections** and a **count of accepted EUSI's.**

For each EUSI record the Supplier will receive an SI1 record when either

- the meter confirms the instruction has been actioned

- or an expiry SI1 record if the message is not acknowledged before the configured EUSI message timeout period.

These records will be received as they are returned from the meter via vend transactions and therefore for example, if 3 records are sent in one SH3 file they will almost certainly be returned in 3 separate SI1 files.

Suppliers will receive SI1 records when a PAYG where they are the registered Supplier receives a CID – this is to enable the Supplier track when a PAYG fit/exchange has been completed on the Back Office Provider systems. Suppliers may use these records to track when the customer will be able to receive subsequent EUSI's.

If the EUSI Type is not equal to those described in the file layout below, the record will be rejected with a validation error code of 991.

Where the tracking reference number is not equal to NULL, it will be checked that it is unique by Supplier ID, if it is not unique the record will be rejected with a validation error code of 812.

The data associated with the EUSI is validated against the EUSI type, if it is not valid the record will be rejected with an appropriate validation error code as described within the table at the end of this section.

The PAYGSP processing will attempt to match the GPRN and meter serial number of the EUSI record to End User accounts as shown in the following table:

END USER ACCOUNT STATE	GPRN	METER SERIAL NUMBER	ACTION	COMMENT	VALIDATION ERROR CODE
N/A	New	New	Record EUSI Failure		811
Closed	N/A	N/A	Record EUSI Failure		813
Active/Pending	Match	Match	Perform EUSI	Normal Operation	
Active/Pending	Different/New	Match	Record EUSI Failure	Different meter	806
Active/Pending	Match	Different/New	Record EUSI Failure	Meter invalid	804

Where a record has been deemed to be invalid a copy of the record is appended to the response file together with the validation error code for the first point of failure found.

GPRN definition

The GPRN in the SH3 should be padded with zeroes to bring it up to 7 characters in length if it is less than 1,000,000 e.g. GPRN 12345 should be output on the SH3 as 0012345.

Emergency Indicator

Dependant on the emergency indicator contained within the request the EUSI will be created as an emergency EUSI for immediate distribution to the outlets or a normal EUSI to be sent to outlets in the overnight file.

Reset EUSI Type

The SH3 EUSI Type of Reset (RST) will set an End User back to use standard default data (last Supplier tariff sent to meter and default emergency credit values) if they've had a Customer Specific Tariff (EST) values.

14.1.2 SH3 – End User Specific Instruction (EUSI) Record Format

FIELD NAME	TYPE	SIZE	REQUIRED	DESCRIPTION
Record Type	String	1	Y	'D' for detail
Supplier ID	String	3	Y	Supplier ID Number
Job type	String	3	Y	'SH3'
GPRN	String	7	Y	
Tracking Reference Number	String	8	N	1 to 99999999
Emergency indicator	String	1	Y	'U' urgent, 'N' Non-urgent
Date/Time of Message	Numeric	14	Y	YYYYMMDDHHMMSS
EUSI Type	String	3	Y	UST Update Supplier Tariff, CRA Credit Adjustment ,EST End User Specific Tariff or RST Reset Customer Values
Credit Adjustment Indicator	String	1	N	'+' or '-' for CRA
Credit Adjustment Amount	Numeric	8	N	0 to 20000 Euro for CRA
Tariff code	String	2	N	For UST
Q-Smart Tariff Code Adjustment	String	1	N	'0' to '4' For UST 0 is off
Standing Charge	Numeric	5	N	00 .00 to 99.99 cents/day for EST
Tariff Block Price 1	Numeric	6	N	00.00 to 50.00 cents/KWh for EST
Tariff Block Price 2	Numeric	6	N	00.00 to 50.00 cents/KWh for EST
Tariff Block Price 3	Numeric	6	N	00.00 to 50.00 cents/KWh for EST
Tariff Block Price	Numeric	6	N	00.00 to 50.00 cents/KWh for EST
Tariff Block Price 5	Numeric	6	N	00.00 to 50.00 cents/KWh for EST
Tariff Block Price 6	Numeric	6	N	00.00 to 50.00 cents/KWh for EST
Tariff Block Width 1	Numeric	6	N	000.00 to 500.00 KWh/day for EST
Tariff Block Width 2	Numeric	5	N	000.00 to 500.00 KWh/day for EST
Tariff Block Width 3	Numeric	5	N	000.00 to 500.00 KWh/day for EST
Tariff Block Width 4	Numeric	5	N	000.00 to 500.00 KWh/day for EST
Tariff Block Width 5	Numeric	5	N	000.00 to 500.00 KWh/day for EST
Emergency Credit Threshold	Numeric	2	N	,00 to 99 for ECU
Emergency Credit Limit	Numeric	3	N	000 to 255 for ECU
Gas Debt Adjustment Indicator	String	1	N	'+' or '-' for GDT
Gas Debt Adjustment	Numeric	9	N	00000.00 to 20000.00 Euro for GDT
Gas Debt Recovery Rate	Numeric	2	N	00 to 25% for GDT
Gas Debt Weekly Min	Numeric	5	N	00.00 to 99.99 Euro for GDT
Gas Debt Weekly Max	Numeric	5	N	000.00 to 429.99 Euro for GDT
Tariff Page	Number	3	N	999 (Tariff page of GPRN from 1 to 250 inclusive)

e.g. D,SUP,SH3,1064979,166318,U,20120927091928,UST,,,2,0,,,,,,,,,,,,,,,,,8

To Note: • Data Items shall be validated against the range specified, however **the Back Office Provider reserve the right to alter range values**. – please see SH3 validation

• When compared to the current Active record, the Supplier ID must be the same otherwise the Request shall be rejected.

• There are no associated Data Items associated to the RST Message.

• EUSI with a Date/Time in the future shall be rejected.

• EUSI Dataflow is outlined in Appendix 17.

• When requesting a EUSI type ALL fields associated with that EUSI type must be completed.

• Data Items not associated to the EUSI Type shall be ignored whether they are populated or blank.

EUSI TYPE	DESCRIPTION	DATA FIELDS REQUIRED
RST	Regional Reset	None
ECU	Emergency Credit	Emergency Credit Threshold
		Emergency Credit Limit
CRA	Credit Adjustment	Credit Adjust Indicator
		Credit Adjust Amount
GDT	Gas Debt	Gas Debt Adjustment Indicator
		Gas Debt Adjustment
		Gas Debt Recovery Rate
		Gas Debt Weekly Min
		Gas Debt Weekly Max
UST	Tariff Code & Page	Tariff Code
		Tariff Page
EST	Tariff	Standing Charge
		Tariff Block Price 1
		Tariff Block Price 2
		Tariff Block Price 3
		Tariff Block Price 4
		Tariff Block Price 5
		Tariff Block Price 6
		Tariff Block Width 1
		Tariff Block Width 2
		Tariff Block Width 3
		Tariff Block Width 4
		Tariff Block Width 5

14.1.3 SI22 – End User Specific Instruction Validation Acknowledgement Record Format

In response to SH3 that fails validation a SI22 record is generated.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Shipper Market Participant	String	3	The three character mnemonic that represents the market participant.
GPRN	String	7	
Tracking Reference Number	Numeric	8	1 to 99999999
Emergency indicator	String	1	'U' urgent, 'N' Non-urgent
Date/Time of Message	Numeric	14	YYYYMMDDHHMMSS
EUSI Type	String	3	UST Update Supplier Tariff, CRA Credit Adjustment, EST End User Specific Tariff or RST Reset Customer Values
Credit Adjustment Indicator	String	1	'+' or '-' for CRA
Credit Adjustment Amount	Numeric	8	0 to 20000.00 Euro for CRA
Tariff code	String	2	For UST
Q-Smart Tariff Code Adjustment	String	1	'0' to '4' For UST 0 is off
Standing Charge	Numeric	5	00.00 to 99.99 cents/day for EST
Tariff Block Price 1	Numeric	6	00.000 to 50.000 cents/KWh for EST
Tariff Block Price 2	Numeric	6	00.000 to 50.000 cents/KWh for EST
Tariff Block Price 3	Numeric	6	00.000 to 50.000 cents/KWh for EST
Tariff Block Price 4	Numeric	6	00.000 to 50.000 cents/KWh for EST
Tariff Block Price 5	Numeric	6	00.000 to 50.000 cents/KWh for EST
Tariff Block Price 6	Numeric	6	00.000 to 50.000 cents/KWh for EST
Tariff Block Width 1	Numeric	6	000.00 to 500.00 Kwh/day for EST
Tariff Block Width 2	Numeric	6	000.00 to 500.00 Kwh/day for EST
Tariff Block Width 3	Numeric	6	000.00 to 500.00 Kwh/day for EST
Tariff Block Width 4	Numeric	6	000.00 to 500.00 Kwh/day for EST
Tariff Block Width 5	Numeric	6	000.00 to 500.00 Kwh/day for EST
Emergency Credit Threshold	Numeric	2	00 to 99 for ECU
Emergency Credit Limit	Numeric	3	000 to 255 for ECU
Gas Debt Adjustment Indicator	String	1	'+' or '-' for GDT
Gas Debt Adjustment	Numeric	8	00000.00 to 20000.00 Euro for GDT
Gas Debt Recovery Rate	Numeric	2	00 to 25% for GDT
Gas Debt Weekly Min	Numeric	5	00.00 to 99.99 Euro for GDT
Gas Debt Weekly Max	Numeric	5	00.00 to 99.99 Euro for GDT
Tariff Page	Numeric	3	Tariff Page to be used in the range 1-250 inclusive.
Validation Error Code	Numeric	3	Please see Validation Codes

e.g.   SUP,1234567,L0760000001M,12345678,N,20070911122334,CRA,+,1.23,,,,,,,,,,,

Data Items will be validated against the range specified, validation error codes are outlined in Appendix 19.

14.1.4 SI1 – End User Specific Instruction Acknowledgement Record Format

When an End User picks up a EUSI on their PAYG Gas Card and it is entered onto the meter, at the next vend transaction the acknowledgement is transferred back to the Back Office Provider.

The SI1 file contains details of these meter acknowledgements.

A time limit of 60 days (default) is placed for the SH3 instructions to be acknowledged unless the time limit is specified by supplier. If the time limit is reached the instruction is cancelled and an SH3 with an acknowledgement code of 99 will be generated.

FIELD NAME	TYPE	SIZE	DESCRIPTION
Supplier ID	String	3	Supplier ID Number
GPRN	String	7	
Meter ID	String	12	
Gas Card Reference Number	String	21	Legacy
Tracking Reference Number	String	8	
Acknowledgement Code	Numeric	2	01 to 12 – Described below
Date/Time of Message	Numeric	14	YYYYMMDDHHMMSS
EUSI Type	String	3	UST Update Supplier Tariff, CRA Credit Adjustment, EST End User Specific Tariff or RST Reset Customer Values

e.g.   SUP,1234567,L0760000001M,,12345678,1,20070911122334,CRA

Note: The suppliers will not be sending through EUSI Type ECU Emergency Credit Update but is included in the implementation; reserved for future use.

The EUSI Acknowledgment Codes are described in the following table:

ACK. TYPE	MEANING
0	Not acknowledged
1	Received OK
2	Valid Overwrite - An existing message of the same type was overwritten
3	Wrong Address
4	EUSI Out Of Sequence - Meter already has a message of the same type with a later time stamp
5	Duplicate Message
8	Credit Overflow - Occurs if the total credit would exceed 21478.36 EURO
9	Corrupt Message
99	Out of Date/Overdue

15. Regional Data and Tariff Updates (SH4 & SH5)

15.1 SH4 Regional Data Non-Tariff Update Request

An SH4 flow allows non-Tariff Data on a specified Tariff Page to be changed. The record is received from Suppliers and can only be used to update non-Tariff Data on Tariff Pages designated as owned or controlled by the Supplier submitting the request.

15.1.1 SH4 – Record Format

FIELD NAME	TYPE	LENGTH	REQ.	DESCRIPTION
Record Type	String	1	Y	"D" for Detail
Shipper Market Participant	String	3	Y	The three character mnemonic that represents the market participant.
Job Type	String	3	Y	"SH4"
Tracking Reference Number	Numeric	8	N	00000001 to 99999999
Tariff Page	Numeric	3	Y	Tariff Page to be updated in the range 001-250 inclusive.
EmCr Threshold	Numeric	2	N	New Emergency Credit Threshold in Euros within the range 00-99 inclusive.
EmCr Limit	Numeric	3	N	New Emergency Credit Limit in Euros within the range 000-255 inclusive.
BISS	Numeric	3	N	New Budget Increment Step Size in Euros within the range 000-255 inclusive.
Gas Allocation Rate	Numeric	3	N	New Gas Allocation Rate as a percentage within the Range 000-100 inclusive.

Below are example records showing an update to page 5 with minimum values for each field and page 250 with maximum values for each field.

D,SUP,SH4,166318,005,01,005,005,030

D,SUP,SH4,166318,250,99,255,255,100

Note:

• The supplier requesting the update of Tariff Page data must be listed with Siemens as the owner / controller of the Tariff Page the request is being made for.

• Where a supplier owns or controls more than one page they may send in multiple records, one for each such page, within the same file.

• Where the supplier sends in multiple records for the same Tariff Page then the records shall be processed by Siemens in the order they are presented in the file and as such the values of the last record shall be the final set used.

• Within each record, where one of the optional fields is blank the system shall not attempt to update that parameter.

• Currently these fields are Industry agreed and can only be updated by GNI. This flow is for future use in the event the settings become supplier specific settings.

15.2 SI23 ATP SH4 Rejection Report

A SI23 record is generated by SIEMENS upon processing a SH4. Records shall only exist in the SI23 which have failed validation performed by the SIEMENS system.

15.2.1 SI23 Record format

FIELD NAME	TYPE	LENGTH	DESCRIPTION
Shipper Market Participant	String	3	The three character mnemonic that represents the market participant.
Tracking Reference Number	Numeric	8	1 to 99999999
Tariff Page	Numeric	3	Tariff Page to be updated in the range 1-250 inclusive.
EmCr Threshold	Numeric	2	New Emergency Credit Threshold in Euros within the range 00-99 inclusive.
EmCr Limit	Numeric	3	New Emergency Credit Limit in Euros within the range 000-255 inclusive.
BISS	Numeric	2	New Budget Increment Step Size in Euros within the range 000-255 inclusive.
Gas Allocation Rate	Numeric	3	New Gas Allocation Rate as a percentage within the Range 000-100 inclusive.
Validation Error Code	Numeric	3	

e.g. D,SUP,SH4,166318,5,1,5,5,30,802

Data Items will be validated against the range specified, validation error codes are outlined in Appendix 19.

15.3 SH5 – ATP Regional Data Tariff Update Request

An SH5 flow is used to allow suppliers to update the tariff values associated with Tariff Codes on each of the new Tariff Pages. Each such record updates a specific Tariff Code on a specific Tariff Page with new values.

Suppliers are only permitted to update tariff values for Tariff Codes they are listed as owning or controlling.

15.3.1 SH5 Record format

FIELD NAME	TYPE	LENGTH	REQ.	DESCRIPTION
Record Type	String	1	Y	"D" for Detail
Supplier ID	String	3	Y	The three character mnemonic that represents the market participant.
Job Type	String	3	Y	"SH5"
Tracking Reference Number	Numeric	8	N	1 to 99999999
Tariff Page	Numeric	3	Y	Tariff Page to be updated in the range 1-250 inclusive.
Tariff Code	Numeric	2	Y	Tariff Code to be updated in the range 00-10 inclusive.
Tariff Start Date	String	8	Y	Date the new Tariff values are to become live. Format: YYYYMMDD.
Standing Charge	Numeric	5	Y	Standing Charger in Cents per day to 2 decimal places. 1 cent per day would be 01.00 Format: 99.99 Range: 00.00 to 99.99
Band 1 Cost	Numeric	6	Y	Cost of band in cents per KWh to 3 decimal places. Format: 99.999 Range: 00.000 to 50.000
Band 1 Width	Numeric	6	Y	Width of the band in KWh to 2 decimal places. Format: 999.99 Range: 000.00 to 500.00
Band 2 Cost	Numeric	6	Y	Cost of band in cents per KWh to 3 decimal places. Format: 99.999 Range: 00.000 to 50.000
Band 2 Width	Numeric	6	Y	Width of the band in KWh to 2 decimal places. Format: 999.99 Range: 000.00 to 500.0
Band 3 Cost	Numeric	6	Y	Cost of band in cents per KWh to 3 decimal places. Format: 99.999 Range: 00.000 to 50.000
Band 3 Width	Numeric	6	Y	Width of the band in KWh to 2 decimal places. Format: 999.99 Range: 000.00 to 500.00
Band 4 Cost	Numeric	6	Y	Cost of band in cents per KWh to 3 decimal places Format: 99.999 Range: 0.000 to 50.000
Band 4 Width	Numeric	6	Y	Width of the band in KWh to 2 decimal places. Format: 999.99 Range: 000.00 to 500.00
Band 5 Cost	Numeric	6	Y	Cost of band in cents per KWh to 3 decimal places. Format: 99.999 Range: 00.000 to 50.000
Band 5 Width	Numeric	6	Y	Width of the band in KWh to 2 decimal places. Format: 999.99 Range: 000.00 to 500.00
Band 6 Cost	Numeric	6	Y	Cost of band in cents per KWh to 3 decimal places. Format: 99.999 Range: 00.001 to 50.000

Example one shows a Tariff entry for Tariff Page 5, Tariff Code 7 with a standing charge of 28.5p and a single band tariff with a cost of 6.666p per KWh.

Example two shows a Tariff entry for Tariff Page 10, Tariff Code 3 with no standing charge and a two rate tariff; the first block costing 5.555p per KWh for a width of 12.56 KWh and the second block at a cost of 6.666p per KWh.

D,SUP,SH5,166318,5,7,20210817,28.50,0,0,0,0,0,0,0,0,0,0,0,06.666

D,SUP,SH5,166318,5,720210817,0,0,0,0,0,0,0,0,0,0,0,05.555,012.56,06.666

Note:

- The supplier requesting the tariff update must be listed by Siemens as the owner / controller of the specific Tariff Code on the page to be updated.
- Where a supplier owns or controls multiple Tariff Codes on one or more pages they may send in a number of records, within the same file, to update each such Tariff Code.
- Should a file contain more than one record updating the same Tariff Code on the same Tariff Page Siemens shall process records in the order they occur in the file and so the values used shall be those of the last such record.
- All Tariff Code updates for the same Tariff Page must use the same Tariff Start Date. Where they do not then Siemens shall reject the all of the updates for that page.

15.4 SI24 – ATP SH5 Rejection Report

A SI24 record is generated by SIEMENS upon processing a SH5. Records shall only exist in the SI24 which have failed validation performed by the SIEMENS system.

15.4.1 SI24 Record format

FIELD NAME	TYPE	LENGTH	DESCRIPTION
Supplier ID	String	3	The three character mnemonic that represents the market participant.
Tracking Reference Number	Numeric	8	1 to 99999999
Tariff Page	Numeric	3	Tariff Page to be updated in the range 1-250 inclusive.
Tariff Code	Numeric	2	Tariff Code to be updated in the range 0-10 inclusive.
Tariff Start Date	String	8	Date the new Tariff values are to become live. Format: YYYYMMDD.
Standing Charge	Numeric	5	Standing Charger per day in Euros to 4 decimal places. Format: 99.99
Band 1 Cost	Numeric	6	Cost of band in cents per KWh to 3 decimal places. Format: 99.999
Band 1 Width	Numeric	6	Width of the band in KWh to 2 decimal places. Format 999.99
Band 2 Cost	Numeric	6	Cost of band in cents per KWh to 3 decimal places. Format: 99.999
Band 2 Width	Numeric	6	Width of the band in KWh to 2 decimal places. Format 999.99
Band 3 Cost	Numeric	6	Cost of band in cents per KWh to 3 decimal places. Format: 99.999
Band 3 Width	Numeric	6	Width of the band in KWh to 2 decimal places. Format 999.99
Band 4 Cost	Numeric	6	Cost of band in cents per KWh to 3 decimal places. Format: 99.999
Band 4 Width	Numeric	6	Width of the band in KWh to 2 decimal places. Format: 999.99
Band 5 Cost	Numeric	6	Cost of band in cents per KWh to 3 decimal places. Format: 99.999
Band 5 Width	Numeric	6	Width of the band in KWh to 2 decimal places. Format 999.99
Band 6 Cost	Numeric	6	Cost of band in cents per KWh to 3 decimal places. Format: 99.999
Validation Error Code	Numeric	3	Please see Validation Codes

16. File Flows between GNI and the Back Office Provider

This section of the document defines the files used as interfaces between the Back Office Provider and GNI system. There are triggers in the GNI system which initiates a file to be sent to the Back Office Provider. These are categorised by "BG" at the beginning of the file name. Files sent from the Back Office Provider are categorised by "SI" at the beginning of the file name.

There are a number of CSV files which are transmitted between the Back Office Provider and GNI. The CSV files share a common header and footer format though each has different data.

- **BG1 New End User**

  A BG1 record is sent to the Back Office Provider from GNI when a registration is to be created or updated on the Back Office Provider system. Once a registration or change of shipper is complete, the BG1 is automatically sent to the Back Office Provider in order for the Back Office Provider Portfolio file to be updated with the correct Supplier information.

- **BG2 Decommission End User**

  A BG2 record is sent to when a registration is to be terminated on the Back Office Provider system.

- **BG3 Update to CV Values**

  A BG3 record is sent to the Back Office Provider when an update to the CV values are to be distributed by the Back Office Provider system. GNI send a BG3 file weekly to the Back Office Provider which is then sent to the Front Office Terminals for pick up on vending.

- **BG7 Portfolio Alignment**

  A BG7 record is sent to the Back Office Provider when an update to portfolio entries on the Back Office Provider system is required.

- **SI2/SI3 Transaction File and Summary File**

  Files generated from the Back Office Provider and sent to GNI showing the transactions that have been completed the previous day and uploaded to IUS.

- **SI2/SI3 Suspense Data and Summary file.**

  Files generated showing the transactions that have been allocated to the suspense account by the process undertaken by the Back Office Provider.

- **SI4 Meter Readings**

  A SI4 file is generated by the Back Office Provider and sent to GNI daily. This file is uploaded to IUS and used in the meter reading table. As part of the overnight processing, this file will be validated using standard meter read validation. Reads that pass validation will be created on IUS.

17. Front Office File Flows to/from Suppliers

As previously outlined, the Back Office Provider collects information on transactions and based on this, directs Front Office Providers to send payment files to Suppliers.

Also, when money flows out of suspense, the Back Office Provider also directs Front Office Provider to send payment files to Suppliers.

The Front Office Provider does not initiate file flows themselves, rather they act on instruction from the Back Office Provider. All files that pass through the Front Office Provider sending data to and from the meter is encrypted. When a customer vends, the Front Office Terminal sends the transaction details to the Front Office Provider.

To note, suppliers should be able to match the payment file from the Front Office Provider, to the Transaction File from the Back Office Provider. Suppliers also receive a Market Message Read (GP read) from GNI, but the read information is "out of step" with the vending. While transaction information and the following payment information transfer once the vend is done, the corresponding read information is only sent once the gas card has been put back into the meter and the information is read to the card. On the next vend, this information is passed through the system and sent to GNI via a Si4 file which in turn becomes a market message for suppliers.

18.   Data Flows

The following diagrams give an indication of the flow of information between the Back Office Provider and the meter (in the form of End User Specific Instructions and their acknowledgements) based on:

a)   Supplier requesting a EUSI to be generated via the SH3 process

b)   Siteworks raised by GNI (Fit or Exchange of PAYG)

c)   GNI receiving instruction from the Supplier (CoS)

d)   Instructions generated by the Back Office Provider based on a blank card input

The following terms are used in the data flow diagrams:

Change CID	The EUSI sent to update the PAYG Gas Card Reference
GCRN	Gas Card Reference Number which is used by the Back Office Provider to target EUSIs to a particular card. This may or may not be the GPRN.
CVC	Change/Set Calorific Value EUSI
UST	Change/Set User Specific Tariff EUSI

Please note: Suppliers will only receive acknowledgements for SH3 EUSIs and CID EUSI's.

Please note: the Calorific Value field represents the CV*MCF, where MCF = Meter Conversion Factor and CV = Calorific Value. This is bundled for PAYG meters to account for the fact that MCF is not calibrated on PAYG Meters.

18.1 SH3 Data Flow

SH3 TRANSACTION

PAYGSP Back Office

```
┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ SH3 Generated│ ──▶ │SH3 transmitted│ ──▶ │ PAYGSP Back  │
│  by Shipper  │     │ to PAYGSP Back│     │Office transmits│
│              │     │    Office     │     │ Shipper EUSI │
└──────────────┘     └──────────────┘     └──────────────┘
```

PAYGSP Front Office

```
        Shipper EUSI
```

PAYGSP Outlet

```
┌──────────────┐
│ Users vends for│
│ 1st time after FO│
│informed and picks│
│ up Shipper EUSI│
└──────────────┘
        │
        ▼
┌──────────────┐
│Vend details sent to│
│  PAYGSP Back  │
│    Office     │
└──────────────┘
        │
        ▼
┌──────────────┐
│ User puts card in│
│     Meter     │
└──────────────┘
        │
        ▼
┌──────────────┐
│ Shipper EUSI is│
│ applied; Ack for│
│  EUSI is put on│
│     card      │
└──────────────┘
        │
        ▼
┌──────────────┐
│Ack will be picked│
│ up on the next│
│     vend      │
└──────────────┘
        │
        ▼
      ( End )
```

18.2 Fit PAYG Data Flow

FIT PAYG

PAYGSP Back Office

Fit PAYG Meter or exchange Credit Meter for PAYG Meter → Meter details uploaded on IUS and transmitted to PAYGSP Back Office → PAYGSP Back Office transmits Change CID to GPRN EUSI for MNL card to pick up → PAYGSP BO transmits other EUSIs for card updated with GPRN as CID to pick up

PAYGSP Front Office

Change CID EUSI for MNL card

EUSIs pending for card upd with GPRN as CID (CVC, UST, SHS)

PAYGSP Outlet

Users vends for 1st time after FO informed (CID= MNL) and picks up Change CID EUSI

User vends for 2nd time after FO informed (CID= GPRN) and picks up other EUSIs

User vends for 3rd time after FO informed (CID= GPRN) no EUSIs

Vend details sent to PAYGSP Back Office

Vend details and Acks for CID sent to PAYGSP Back Office

Vend details and Acks sent to PAYGSP Back Office

User puts card in Meter

User puts card in Meter

CID is changed to GPRN from MNL; Ack for Change CID EUSI is put on card

EUSIs are applied to meter; Acks for EUSIs are put on card

End

18.3 Exchange PAYG Data Flow

When incoming PAYG is commissioned by the fitter from standard values. Please note: The CID, CVC, UST & GDT values will be brought across from the outgoing PAYG if the meter is commissioned from last values.

EXCHANGE PAYG

PAYGSP Back Office

| Exchange PAYG Meter | → | Meter details uploaded on IUS and transmitted to PAYGSP Back Office | | When Vend on MNL received for exchanged meter | → | PAYGSP Back Office transmits Change CID to GCRN EUSI for MNL card to pick up | → | PAYGSP BO transmits other EUSIs for card updated with GCRN as CID to pick up |

PAYGSP Front Office

Change CID EUSI for MNL card

EUSIs pending for card upd with GCRN as CID (CVC, UST,SHS)

PAYGSP Outlet

User vends for 1st time after FO informed (CID= MNL) no EUSIs	Users vends for 2nd time after FO informed (CID= MNL) and picks up Change CID EUSI	User vends for 3rd time after FO informed (CID= GCRN) and picks up other EUSIs	User vends for 4th time after FO informed (CID= GCRN) no EUSIs
Vend details sent to PAYGSP Back Office	Vend details sent to PAYGSP Back Office	Vend details and Acks for CID sent to PAYGSP Back Office	Vend details and Acks sent to PAYGSP Back Office
User puts card in Meter & uploads credit	User puts card in Meter & uploads credit	User puts card in Meter & uploads credit	End
No EUSIs on card so no updates made or Acks generated.	CID is changed to GCRN from MNL; Ack for CID EUSI is put on card	EUSIs are applied to meter; Acks for EUSIs are put on card	

18.4 Change of Supplier Data Flow

The Change of Supplier process will set the customers Tariff to the Default Tariff of the Incoming Supplier.

CHANGE OF SHIPPER

PAYGSP Back Office

| Change of Shipper | → | Changed Details uploaded on IUS and transmitted to PAYGSP Back Office | → | PAYGSP Back Office transmits Change Tariff for new shiper EUSI | —After 10 days→ | May go to Change Shutdown Prevention |

PAYGSP Front Office

Change Tariff EUSI

PAYGSP Outlet

Users vends for 1st time after FO informed and picks up Change Tariff EUSI

↓

Vend details sent to PAYGSP Back Office

↓

User puts card in Meter

↓

Tariff is changed ; Ack for EUSI is put on card

↓

Ack will be picked up on subsequent vend

↓

End

18.5 EUSI Data Flow

EUSI DATA FLOW

19. Appendix – EUSI Validation Error Codes

CODE	DESCRIPTION	MEANING
800	Date Invalid	Request date is earlier than Supplier start date
801		Multiple active customer records exists for GPRN
802		Date format incorrect
803		An active record already exists for GPRN/MSN
804	Different meter	found with same GPRN but different meter
805		Multiple active customer records exists for MSN
806	Meter invalid	Meter exists on a different valid GPRN
807		Transfer date earlier than existing GPRN record
808		Region code is not a valid region code
809		No default tariff exists for Supplier
810	Supplier invalid	Supplier invalid for request type
811	GPRN invalid	GPRN does not exist
812	Invalid tracking reference	Tracking reference number already exists for this job type and Supplier id
813	End User Account Closed	The most relevant End User Account is Closed.
814		Data in data fix already match data on record
815		Shutdown date contains 29th Feb
816	Invalid Date	EUSI Date and Time of the request is invalid
817	Invalid Tariff Code	Tariff Code requested not valid for that Supplier
818		CRN already exists on an unclosed customer
819		Multiple active customer records exists for CRN
820		Req date cannot be in the future
822	Wrong Meter	New EUSI Type requested for a Legacy Meter
823		Start date and/or end date is missing
824		Start date greater than end date
825		Gascard number cannot be null
826		Start date overlaps another record for GPRN
827		Start(Possible mistype; end instead) date overlaps another record for GPRN
828		Start date overlaps another record for the meter
829		End date overlaps another record for the meter
840		End date is on or before start date
853		The Tariff Page specified is not valid against the shippers Tariff Page list
854		Different Tariff Start Date specified for the same Tariff Page with SH5 data
855		Different Tariff Start Date already in use for selected Tariff Page
856		Tariff Band cost set to zero where width is non-zero
857		Tariff Band width set to zero where cost is non-zero

CODE	DESCRIPTION	MEANING
858		Emergency Credit update disabled
859		BISS update disabled
860		GAR update disabled
861		Tariff Page specified cannot be found
862		Supplier is using ATP flow when not enabled for ATP
864		Emergency Credit parameters not either both set or both blank
898		Request was validated successfully, passing all required business rules and responses
899		An unexpected error occurred
900		All fields have passed file processing logic and can be passed to business logic
950		Flow/file level validation/production successfully passed
951		All records within the input file passed
952		Some records within the input file passed
953		All records within the input file failed
956		Unexpected sequence received for flow type from shipper. File sequence not incremented
957		Invalid Julian date. File sequence not incremented
958		File sequence file does not exist for the requested input file. File sequence not incremented
960		File rejected because length of filename is wrong. File sequence not incremented
961		File record count is zero. File sequence not incremented
962		File record count is incorrect. File sequence not incremented
964		File has an invalid version number for flow type. File sequence has been incremented
965		Time within file is not valid. File sequence has been incremented
966		Date within is not valid. File sequence has been incremented
967		Receiver ID within file is valid i.e. not SES. File sequence has been incremented
968		Supplier ID within files does not match Supplier ID in filename. File sequence has been incremented
969		Filename within file does not much actual filename. File sequence has been incremented
970		Invalid record for file. File sequence has been incremented
971		Conditional check failed against BG1/BG9. SDP Enable detected, but not set on all fields
972		Conditional check failed against BG1/BG9. SDP_PERIOD2_ENABLE is set to Y, but start or/and end fields
973		Conditional check failed against BG1/BG9. SDP_PERIOD1_ENABLE is set to Y, but start or/and end fields are not populated
974		Conditional check failed against BG1/BG9 ON_SDP_ENABLE is set to Y, but start or/and end fields are not populated
975		Conditional check failed against SH3. ECU Reason code has fields populated that are not required against that reason code

CODE	DESCRIPTION	MEANING
976		Conditional check failed against SH3. ECU Reason code has fields populated that are not required against that reason code
977	EST Cnd failed - Unrequired	EST Reason code has fields populated that are not required against that reason code
978	EST Cnd failed - Required	EST Reason code does not have required fields populated
979	UST Cnd failed - Unrequired	UST Reason code has fields populated that are not required against that reason code
980	UST Cnd failed - Required	UST Reason code does not have required fields populated
981	CRA Cnd failed - Unrequired	CRA Reason code has fields populated that are not required against that reason code
982	CRA Cnd failed - Required	CRA Reason code does not have required fields populated
983		Conditional check failed against BG1. SDP_PERIOD2_STOP time element is out of range of ON_SDP_START min and max ranges
984		Conditional check failed against BG1. SDP_PERIOD2_START time element is out of range with ON_SDP_START min and max ranges
985		Conditional check failed against BG1. SDP_PERIOD1_STOP time element is out of range with ON_SDP_STOP min and max ranges
986		Conditional check failed against BG1.SDP_PERIOD1_START time element is out of range with ON_SDP_START min and max ranges
987		Conditional check failed against BG1. Reason code 5
988	Num of fields invalid	Number of fields within the record does match the number of fields required
989	Field mandatory, yet null	Field is defined as being required yet is empty within record
991	Field not in valid set values	Field is not within the valid set values defined
993	Field time format invalid	Fields time format does not match definition
994	Field date format failed	Fields date format does not match definition
995	Field numeric format failed	Fields numeric logical format does not match definition
996	Field string format invalid	Fields string logical format does not match definition
997	Field needs to be fixed length	Field is defined as fixed length, but record field is not the correct length
998	Field exceeds length	Field within record exceeds the physical maximum size allowed
999	Field not found	Not field has been found against the corresponding position in the record
101	GDT Cnd failed - Required	Conditional check failed against SH3. GDT Reason code does not have required fields populated
102	GDT Cnd failed - Required	Conditional check failed against SH3. GDT Reason code wkly min greater than wkly max

20. Workflows & Scenarios

Workflow **1**

Supplier/GNI/Siemens/Payzone

1	A supplier raises a site works activity; either to fit a Pay as You Go meter or an exchange to a Pay as You Go meter via GNI's market messaging system. A hardship flag should be indicated at this point if relevant.
2	A work order is generated within GNI and a gas fitter completes the site works activity at a customer's premises.
3	A supplier will receive market messages on the completion of the site works activity, which will include the meter number and meter read information.
4	The registration process with the Back Office Provider (Siemens) can begin. Depending on the site works activity a BG1 R (Registration) or a BG1 E (Exchange) is sent from GNI to Siemens for processing.
5	BG1 messages can be processed by Siemens as non-urgent (overnight) or urgent (immediate). GNI receive an acknowledgement when a BG1 has been successfully processed by Siemens.
6	Siemens process the BG1 messages and send corresponding messages to the Front Office payment terminal (Payzone).
7	The customer will pick up the messages when they top up their gas.

Workflow **2**

Pay As You Go Customer

1	On installation of the Pay as You Go meter the fitter will commission the meter using a GIST service tool. This contains the latest regional data including emergency credit, debt rate allocation, default tariff and standing charge.
2	A default supplier tariff value, allocated to Page 2 Tariff Code 0, is set onto the meter in order for the customer to be able to purchase gas immediately.
3	The Pay as You Go customer is provided with a gas card and a customer leaflet on how to use their meter.
4	The gas card is initialised by placing it into the meter. This action needs to be completed before a customer can purchase a top up. If the gas card is NOT initialised the top up will be declined at the payment terminal.
5	After initialising the meter the customer can go to a payment outlet and top up with a minimum purchase of €10. Irrespective of other IT message flows in the background, the customer will be able to successfully purchase gas at this point.
6	The Pay as You Go customer goes back to the meter, inserts card and top up value will be transferred to the meter.
7	The Pay as You Go customer can use gas.

Workflow **3**

Customer Vending/Systems Updating/Information Updating

1 On the first top up of gas, the money associated with this purchase will go into the suspense account.

2 Siemens require three unique identifiers in order to allocate a top up to the correct supplier. These are gas card number, meter serial number and Gas Point Registration Number (GPRN).

3 It will typically take two to three top ups for all the required information to be aligned, on the provision that the customer is inserting the gas card into the meter after each top up.

4 Each time a customer inserts their gas card they are not only placing new information onto the meter they are also receiving information from the meter, for example meter reads. GNI will receive these meter reads (GP reads) when the customer tops up the next time. Suppliers will also receive these GP reads via market messages.

5 Upon alignment Siemens can send SI2/SI3 files and various other reports to suppliers.

6 Siemens can also reconcile monies in the suspense account and send the Front Office Provider, Payzone settlement files.

7 Payzone can settle the monies from gas purchases for the suppliers.

General Scenarios Day to Day Events
Scenario **1**
Supplier sends down Debt EUSI

STEP|**1**

Once all systems are aligned between Siemens and GNI, suppliers can send down a Debt Adjustment EUSI *(End User Specific Instruction).*

STEP|**2**

Gas Debt is sent to a meter via a GDT EUSI, the Supplier sends this request to Siemens.

The supplier needs to provide all four elements of the gas debt message . . .

STEP|**8**

The meter follows a set process when credit is inserted into the meter,
which is as follows:

1. Credit on Gas card is inserted into the meter

2. Meter guarantees a percentage of the credit for gas

3. Gas Debt is deducted as a percentage

4. Any remaining credit is used to repay General Debt. Depending on the amount owed, it may not be paid in full; this will then have to be recovered at a later date

5. If there is still credit left, this is given to the customer for gas usage

STEP|**7**

Gas Debt data is available to the supplier within the SI12 file received from Siemens daily and the SI26 Customer Account Report received daily.

STEP | 3

A Gas Debt Weekly Minimum, Weekly Maximum and Gas Debt Recovery Rate in addition to the debt value itself.

• The Gas Debt Recovery Rate will be set to 25%.

• The minimum and maximum will both be set to €0.00

STEP | 4

Siemens send this message to the Payzone terminals for the customer to collect. The EUSI will timeout after the supplier specified time out period (default 60 days).

STEP | 6

The customer is always guaranteed some gas from credit purchased which is determined by the Gas Allocation Rate. This is defaulted to 55%.

STEP | 5

Once the customer puts the card into the meter, and the values on the EUSI are live in the meter, every time the meter is topped up, 10% of each top up will be taken by the meter towards the Gas Debt.
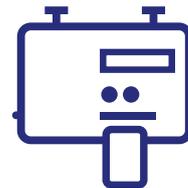
Scenario **2**
Supplier sends down Credit EUSI

STEP│1

Once all systems are aligned between Siemens and GNI, suppliers can send down a Credit Adjustment *(CRA)* EUSI *(End User Specific Instruction)*.
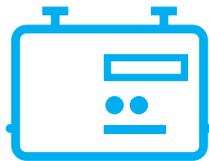
STEP│2

The EUSI message is sent to Siemens from the supplier. Siemens make this message available at the Payzone terminals for collection.

STEP│4

After topping up, when the customer puts the card back in the meter, the credit adjustment value is transferred to the meter.

STEP│3

When a customer tops up, they will pick up any outstanding messages, including CRA's.

STEP│5

Following a further top up which may occur weeks later, an acknowledgement flag is sent to Siemens and then onto the supplier to confirm the CRA has been received. If not, the EUSI will timeout after the supplier specified time out period (default 60 days). Also if the customer does not make a second top up within the extended period the acknowledge-ment flag will not be returned.

STEP│6

Credit Adjustment data is available to the supplier within the SI26 report, which is sent to suppliers on a daily basis.

STEP│7

A meter can have a build-up of standing charges if a premises is vacated or a customer does not top up on a regular basis. If not, the EUSI can be extended if a customer does not top up to collect it. Also if the customer does not make a second top up within the extended period the acknowledgement flag will not be returned. The Credit Adjustment will not remove any Emergency credit debt which may form a subset of the general debt values displayed on the customer's meter. To clear this, the customer will need to top up.

Scenario **3**
Supplier tariff updates

STEP|**1**
At the request of the supplier, tariff values corresponding to tariff codes are amended via a SH5.

STEP|**2**
The supplier will issue a SH5 to Siemens. This SH5 will instruct Siemens to amend the tariff values of the supplier assigned tariff code.

STEP|**4**
The prices only go live on the effective date stated on the SH5.

STEP|**3**
Suppliers can arrange for these price changes to be issued in advance of the effective date. This allows the prices to be downloaded to the terminals as a future dated change to regional data so that customers potentially pick up the new prices and load them on to the meter in advance.

STEP|**5**
Following the download by Siemens of the new prices within the regional data file, they are immediately issued to the Payzone terminal estate, so that the following morning this regional data (and therefore the amended pricing within the data) is available for customers to pick when they top up.

STEP|**6**
The changes will only apply to the customers who hold that particular tariff code (the one quoted in the SH5) on the meter.

STEP|**7**
As this is regional data and is presented to the card during every top up, there is no expiry period.

Scenario **4**

Supplier raises change of supplier

STEP | **1**

When a change of supplier request is raised; there are two elements to consider; updating the GNI systems via market message and subsequently updating the Siemens via a BG1 C message from GNI.
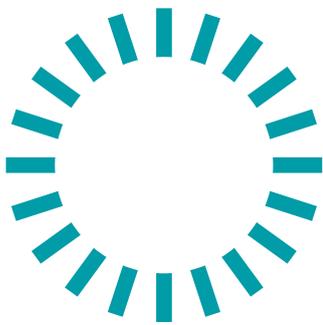
STEP | **2**

Following a valid change of supplier request, GNI notifies Siemens of the new suppliers identity and any changes to the customer details.
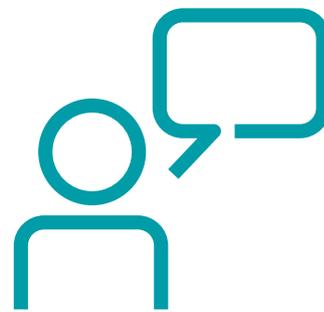
STEP | **8**

Any credit on the meter remains at the time of change of supplier. Gas Debt is wiped from the meter under the change of supplier process.

STEP | **7**

Change of supplier messages to Siemens are non-Urgent and sent overnight.

STEP|3

Siemens processes the instruction and makes a UST EUSI (Update Shipper Tariff) available for pick-up by the customer at the Payzone terminals.

STEP|4

When a customer tops up, for the first time after the change of supplier, the instructions are written to the gas card as part of the top up transaction. The instructions are transferred to the meter when the gas card is next inserted into the meter and following a further top up, downloads acknowledgements to the card.

STEP|6

Change of supplier messages to Siemens are only done after the change of supplier has taken place and completed on the GNI system.

STEP|5

Once the customer tops up a second time, acknowledgements received are sent back to Siemens and then processed.

Scenario **5**

GNI meter exchanges

STEP | **1**

Pay as You Go meters are exchanged for various reasons, as part of ongoing meter replacement works, battery issues or general meter issues that may warrant an exchange.

STEP | **2**

The meter exchange process for prepayment is initiated by suppliers in the same way as a credit meter, by the receipt of a site works market message, or by GNI as required.

STEP | **4**

For the majority of cases, the fitter can transfer any remaining credit and debt information on the old meter, to the new meter, via the GIST tool *(GNI Fitters Service Tool)*

STEP | **3**

There are additional requirements in place to cover the fitting of a Pay as You Go meter where the customer is vulnerable or the location of the Pay as You Go meter would not be suitable or safe for the customer.

STEP | **5**

If the fitter is unable to transfer the information as part of the exchange, an email from GNI with specific customer credit and debt details will be sent to the supplier. The amounts will either be verified by the fitter or by the customer.

STEP | **6**

The supplier actions the email they receive from GNI and sends the appropriate EUSI message to the Payzone terminal. The customer can collect the message on their next top up.

Gas Networks Ireland

The main contact details for
Gas Networks Ireland are:

General Enquiries

1800 464 464

24hr Emergency Service

1800 20 50 50

info@gasnetworks.ie

@GasNetIRL

gasnetworks.ie