NTS Exit Reform

External
System User Guidelines

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Please Note: This document has been provided to give guidance regarding the operation of Gemini Exit, which is part of the UK Link systems with respect to the processes as detailed in the UNC. Every effort has been made to ensure that the information contained within it is correct. However if there is a conflict with National Grid's Gas Transporter Licence in respect of the NTS('the Licence'), or the Uniform Network Code ('UNC'), then the Licence or UNC shall prevail

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Introduction

National Grid provides a network of pipelines to Shippers. These pipelines enable Shippers to supply gas to their customers. They are known as Business Associates (BAs) or business partners of National Grid and, dependant on the nature of business transactions, are categorised into different types as explained in the table below.

Shipper	Shippers
BAL MARGINS	Balancing Margins Manager
BAL OPERATOR	Balancing Margins Operator
CLAIMS VAL AG	Allocation Agent Claims Validations Agents
ENDUSER WITH BC	End User with Bilateral Contract
ENDUSER DOU	End User with Deed of Undertaking
GAS TRADERS	Gas Traders
INTER CONN AG	Inter Connecter Agent
LNG MANAGER	National Grid LNG Manager
NOM AGENT	Nomination Agent
STORAGE OP	Storage Operator
National Grid	National Grid Transmission and Trading

Facilities offered by National Grid to its customers that do not result in direct payment are known as Services. These are classified as **Entry; Energy Balancing; Invoicing** and **Exit**. The Services are also divided into Sub-Services and these are the facilities that are available for the Business Associate or Shipper. The sub services associated with the Exit system are as follows:

NTS Exit Booking	
NTS Exit Transfer	National Grid provides contracts to Shippers
NTS Exit Assignment	Gas flow maintained
NTS Exit Overrun	

NTS Exit Zones are defined areas of the National Transmission System (NTS) comprising a number of NTS Exit Points. The boundaries of these are defined by distinct pressure boundaries relating to the geographical location of the compressors, regulators and multi junctions connected to the NTS.

The purpose of this document is to provide details and instructions for the main processes conducted within the Gemini Exit System. The document covers the following areas;

- Reporting;
- Long Term Applications;
- Short Term Auctions; and
- Constraints.

Please Note: All data contained within the screen shots is purely fictional taken from test environments.

As you go through the document you will see that some of the screen shots have blue banners which have been taken from testing environments. Some of the example screen shots have been taken from different phases of the project, when the banners were 'blue', however the final phase of the project introduced 'green' banners. Therefore, when you go into Production all screens will have green banners only.

Accessing the system

The new NTS Exit Reform system is paired with the existing Gemini system and as such is accessed via the Gemini menu page.

Users should open Internet Explorer and enter the Citrix URL as detailed in the Gemini 2013 Guide to Connectivity V1 dated 28th August 2013. This Guide is available via the following link:

http://www.xoserve.com/index.php/our-systems/gemini/gemini-technical-publications/

Once a Citrix connection is established, click on the **Gemini Production** icon.

- The Gemini Log In screen will be displayed.
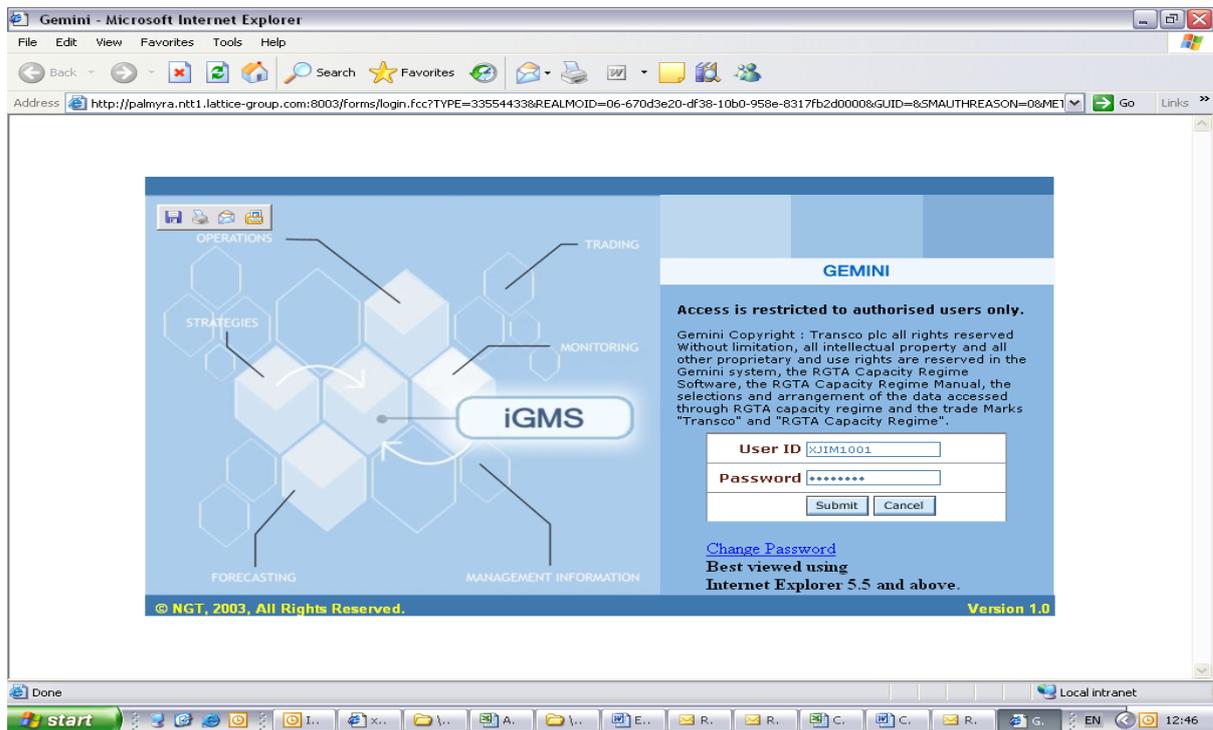
- Enter your Gemini **User ID** and **Password** in the relevant boxes.
- Click on the **Submit** button.
- The Gemini System Menu will be displayed.

- To access the NTS Exit Reform system click on the **Gemini Exit** button.
- The homepage for the **Gemini Exit Reform** system will be displayed.

Gemini Exit Home Screen

Points to Remember

If you cannot see the Gemini Exit Button or your role within the system is 'read-only', you will need to request access or amendment via your Local Security Officer (LSO). The LSO should then contact the Xoserve Customer Lifecycle team on your behalf (customerlifecycle.spa@xoserve.com).

If there is a period of one month where your account is not used and inactive, your password will need to be reset the next time you use the system. It is advised that you log into the system at least once per month.

List of Abbreviations

AFLEC	Annual NTS Exit Flat Capacity
ADEFLEC	Ad-hoc Decrease Enduring NTS Exit Flat Capacity
AIEFLEC	Enduring Ad-hoc Increase Flat Exit Capacity
EAFLEC	Enduring Annual Flat Exit Capacity
EXBB	Exit Flat Capacity Buyback Contract
DADNEX	Day Ahead Daily NTS Exit (Flat) Capacity
WDDNEX	Within Day Daily NTS Exit (Flat) Capacity
DONEX	Daily Off-peak NTS Exit (Flat) Capacity
DBNEX	Daily Buyback NTS Exit (Flat) Capacity
MoS	Method of Sale
WAP	Weighted Average Price
OFR	Off-take Flow Reduction
DN	Distribution Network
BA	Business Associate
OCF	Off-peak Curtailment Factor
LSO	Local Security Officer
OPN	Offtake Profile Notice

Gemini Exit

Chapter Seven

Constraints

7. Introduction to Constraints

UNC Modification 0195AV introduced a number of Exit Constraint Management commercial mechanisms, namely:

- Curtailment of Off-peak capacity entitlement "constraint"
- Buyback of Firm capacity rights – "DBNEX"
- Exit Capacity Management Agreements (Forwards and Options) – "EXBB"; and
- Offtake Flow Reduction (OFR)
- DN Flow Swaps

National Grid NTS may constrain and, following this, restore Off-Peak Exit Flat Capacity Entitlements at one or more NTS Exit Point(s). The notice sent will specify the NTS Exit Point(s) and Gas Day; the effective time and Off-peak Curtailment Factor. The OCF can be of any value between 0 and 1.

OCF 1 – no scale back therefore there will be 100% of Off-peak NTS Exit (Flat) Capacity available.
OCF 0 – total scale back therefore there is no capacity available.

An OCF can be applied at any time before and throughout a gas day following the allocation of any Off-peak Capacity at 15:00 (D-1). All Users will be notified via ANS message indicating the revised OCF at applicable NTS Exit Points giving a minimum of 4 hours notice.

In order to avoid potential overrun charges it is expected that you will revise any nominations accordingly. Following the scale back if conditions change and it is anticipated that the forecasted NTS Exit Constraint has been resolved then a full or partial restoration may take place. You will be informed of this via ANS message that will detail the changed OCF.

Please Note: after National Grid NTS has applied a constraint and/or restoration, you will be able to view your own revised off-peak entitlements in the Entitlements report.

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7.1 History Screen (Constraint/Restoration)

The Navigation Path for this screen is

Home>Constraints >Constraint/Restoration History.

Once you have accessed this screen you need to select to the following criteria:

- **Location**
- **Period From –** you can enter the date or select it from the calendar
- **Period To** – you can enter the date or select it from the calendar
- Click **Query**

Information based on your selected query criteria will be displayed that will include:

- **Location**
- **Gas Day** – on which the constraint/restoration is effective
- **Constraint or Restoration**
- **Effective Time –** details when the constraint or restoration is due to take place
- **Available Quantity (kWh) –** for both firm and off-peak capacity at the selected location(s) after the constraint/restoration has taken place
- **Off-peak Curtailment Factor (OCF)** – once it has been calculated at **confirmed** and **cancelled** status and is applicable from the effective time.
- **Status** – this can be either **confirmed** or **cancelled**
- **Timestamp**

Constraints – Constraint/Restoration History - Query

7.2 Offtake Flow Reduction (OFR)

An Offtake Flow Reduction can be initiated by National Grid NTS where they require you to reduce demand for a set period of time. This is done by requesting offers for OFR at NTS Exit Points that are impacted by the forecast constraint. Initially those in affected NTS Exit Zones will be notified by ANS message to state that there is an option to make an offer to National Grid Transmission.

Secondly, National Grid NTS will publish an invitation requesting the submission of offers to reduce their flow at one or more locations for a specific time period. This will include the following:

- **Invitation Reference Number**
- **Gas Day**
- **Location** – one or multiple
- **Reduction of Energy Flow** – energy in kWh
- **OFR Period Start time** – in exact hours
- **OFR Period End time** – in exact hours
- **Offer Submission Window**
- **Latest Allocation time** – this will not be less than 60 minutes before the start of the reduction period
- **Status** – Published or Open

National Grid NTS may assess all offers throughout the submission window and may allocate in full or part until the system reaches the latest allocation time. Once an offer has been accepted and allocated, you will need to send a revised Offtake Profile Notice (OPN) no less than 30 minutes prior to the start of the reduction period.

Please Note: - if the OPN does not match the flow reduction that was offered and accepted, then payment may be withheld. An "after the day" process will be managed by National Grid Transmission to confirm that the revised OPN(s) reflect the accepted OFR offers and then payments will be made accordingly.

7.2.1 OFR Set up User Preferences

These screens will allow the external User to set up preferences relating to maximum/minimum energy; price and value of your OFR offers. When placing offers the system will validate this

information against the pre-set preferences. However you can override the message and continue to place the offer at your discretion.

The Navigation Path for this screen is

Home>Deal>Offtake Flow Reduction>Setup OFR User Preferences.

Select the relevant criteria and click **Query**
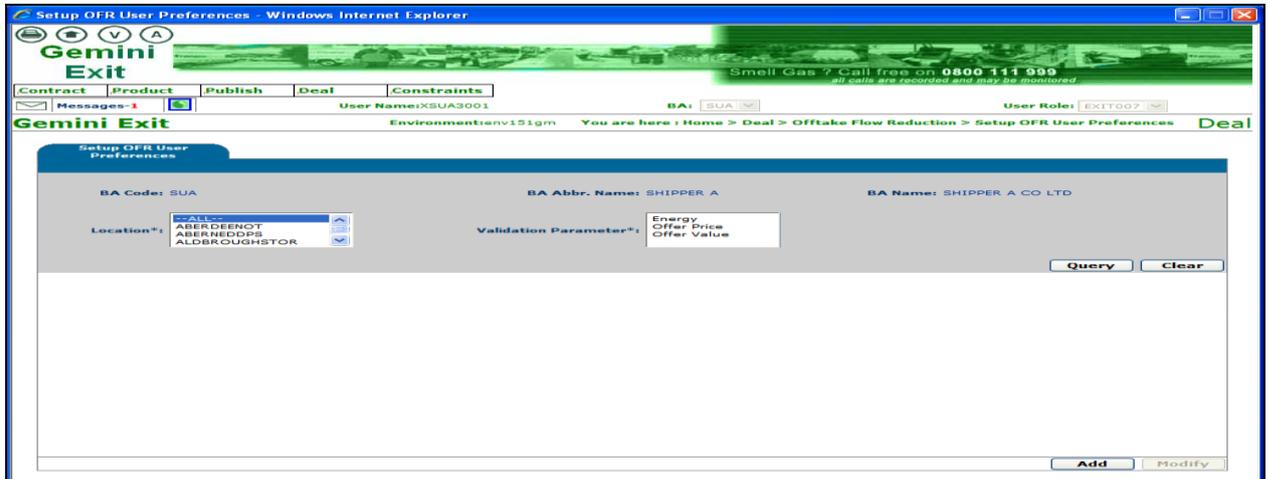
Deal – Offtake Flow Reduction – Setup OFR User Preferences
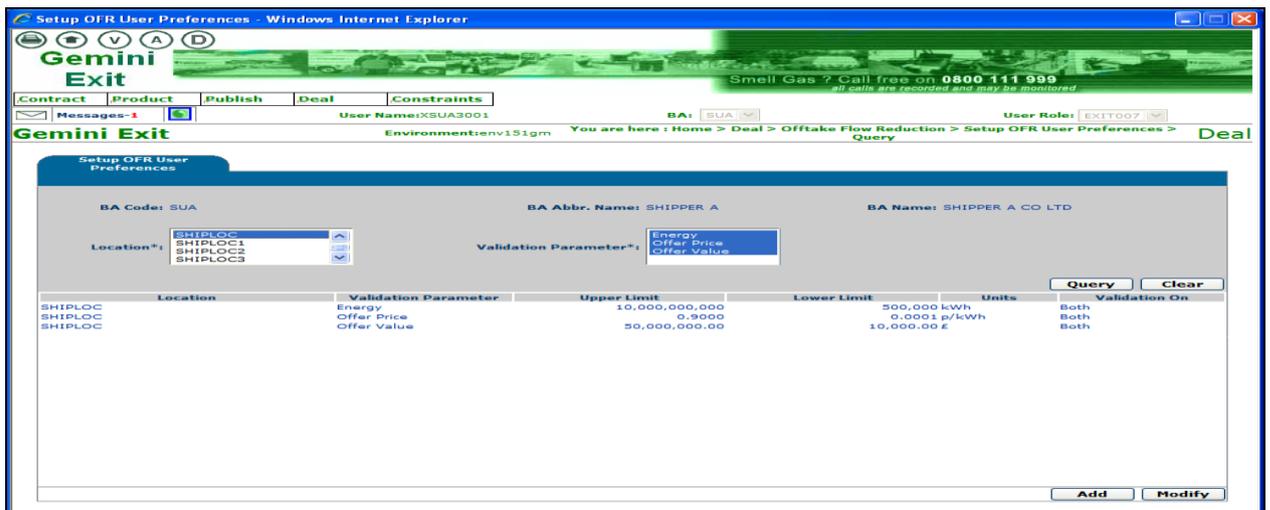
Deal – Offtake Flow Reduction – Setup OFR User Preferences – Query

7.2.2   Add OFR User Preferences

From the Query screen you can click **Add** to add preferences and specify both the Upper and/or Lower validation fields.

- Select **Validation On**
- Enter **Upper Limit**
- Enter **Lower Limit**
- Click **Save**

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Deal – Offtake Flow Reduction – Setup OFR User Preferences - Add

Deal – Offtake Flow Reduction – Setup OFR User Preferences - Add

Please Note: the system will check to see if any preferences already exist for the same location. If this is the case you will be shown this message:

"User preferences are already defined at one or more of the selected NTS Exit Points."

7.2.3   Modify OFR User Preference

From the Query screen you will be able to click **Modify** preferences to amend the upper or lower or both for: Capacity; Price and Value for single or multiple location(s) (see note below).

- Click on the **Modify** button
- Select by checking the box next to the location(s) you want to amend

Amend (as required)

- **Validation On**
- **Upper Limit**
- **Lower Limit**
- Click **Save**

Please Note: you can select multiple locations but note that no values will be shown. However all records that have been selected will be updated when the information is saved.

Deal – Offtake Flow Reduction – Setup OFR User Preferences - Modify

<u>Please Note:</u> **When modifying both preferences then the upper and lower limits must be entered or the record will not be saved**

7.3 Capture OFR Offers

The Navigation Path for this screen is

Home>Deal>Offtake Flow Reduction>Offtake Flow Reduction Offer Capture.

- Enter **Gas Day**
- Select **Invitation Reference Number**
- Enter **Location**
- Click **Query**

Deal – Offtake Flow Reduction – Offtake Flow Reduction Offer Capture

You will be shown the following fields:

- **Offer ID**
- **Gas Day**
- **Minimum Energy Offered (kWh)**
- **Maximum Energy Offered (kWh)**
- **Offer Price (p/kWh)**
- **Offer Value(£)**
- **Flow Rate**
- **Timestamp** – shows when the request was placed
- **Offer Status** – this will display the request status dependant on where you are in the process, when adding it will show as **New**
- **Action – (V) - View**

Deal – Offtake Flow Reduction – Offer Capture - Query

<u>**Please Note:**</u> **only those locations associated with the selected invitation reference number will be displayed. Please note that the screen also shows the offer parameters that National Grid NTS has defined.**

<u>**Please Note:**</u> **to display the details of a previously saved variable offer click the 'V' icon.**

Deal – Offtake Flow Reduction – Offer Capture - View

7.3.1   Add OFR Offer

From the **Query** Screen click **Add**. You will be able to add an offer by entering the details and specifying whether the offer is constant or variable. This can only be done during the offer submission window. The system will carry out a validation check and if the window is **closed** the following message will be displayed on the screen:

"An offer cannot be added, modified or withdrawn as the Offer Window for the Invitation Reference Number is closed."

You must enter:

- **Minimum Energy Offered (kWh)**
- **Offer Price (p/kWh)**
- **Flow Rate – Constant or Variable**
- **Maximum Energy Offered (kWh) – Constant Offers Only** (for variable this is automatically calculated by the system)
- **Energy Offered (kWh) – Variable Offers Only** - values required for each flow hour
- **Offer Value (£)** – this is automatically calculated by the system

Click **Save.**

Once you have clicked the **Save** button the system will carry out a number of validation checks making sure that the offer you have entered does not contravene any of the preferences previously set up. The system will alert you and give you the opportunity to override the message and place the offer. Additionally the system will check that the number of offers you are placing does not exceed the number specified within the parameters defined by National Grid NTS.

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Deal – Offtake Flow Reduction – Offer Capture – Add (Constant)

Deal – Offtake Flow Reduction – Offer Capture – Add (Variable)

Please Note: When placing a variable offer, although you can enter an hourly amount, the system does not use the hourly figures for any validation or calculation. It will use the 'Maximum Energy Offered' field and the system sums the hourly figure and populates the field automatically.

7.3.2   Modify OFR Offer

To modify an existing offer, from the **Query** screen, click on the **Modify button**

Select the offer using the radio button.
You can then update the following fields

- **Minimum Energy Offered (kWh)**
- **Offer Price (p/kWh)**
- **Flow Rate – Constant or Variable**
- **Maximum Energy Offered (kWh) – Constant Offers Only** (for variable this is automatically calculated by the system)
- **Energy Offered (kWh) – Variable Offers Only** - values required for each flow hour

Click **Save**

Once you have clicked the **Save** button the system will carry out a number of validation checks making sure that the offer you have entered does not contravene any of the preferences that were previously set up. The system will alert you and give you the opportunity to override the message and place the offer.

Additionally the system checks if your offer has been allocated and if so displays the following message:

"The Offer can not be modified as the Offer is already allocated."

If the Offer window is closed the following message is displayed

"The Offer can not be modified as the Offer window for the Invitation reference is closed."

Deal – Offtake Flow Reduction – Offer Capture – Modify (Constant)

Deal – Offtake Flow Reduction – Offer Capture – Modify (Variable)

7.3.3   Withdraw OFR Offer

Click **Withdraw** from the Query screen

You can withdraw an offer(s) during the period of the 'Offer submission window' that is defined in the invitation and only where the offer status is **New**. To do this:

- Select the offer(s) using the select box
- Click **Save**- the system will ask you to confirm
- Click **ok**

Deal – Offtake Flow Reduction – Offer Capture - Withdraw

Once confirmed the offer will be removed from the list of offers associated with the Invitation Reference Number.

Please Note: the system will check if the offer has been allocated for the location and Invitation Reference Number and if so the following message will be displayed:

"The Offer can not be withdrawn as the Offer is already allocated."

The system will also check if the Offer submission window is open, if not the following message will be displayed:

"The Offer can not be withdrawn as the Offer window for the Invitation reference number is closed."

7.4   DNO Flow Swaps

National Grid NTS or DNO Users can initiate a Flow Swap ahead of or within the Gas Day to which the swap relates to. It is possible to swap flow between two or more Offtakes within the **same** LDZ. Once the Flow Swap is agreed (offline) the details will be entered into the system within day. When a DNO initiates a Flow swap, National Grid NTS can choose to accept or reject the swap. You will be able to either accept or reject a National Grid NTS initiated flow swap. Flow Swaps can also be withdrawn prior to acceptance or rejection by the counterparty.

7.4.1   Initiating Flow Swaps

The Navigation Path for this screen is

Home>Product>Flow Swap>DNO Flow Swap.

This section shows you how to enter details of the Flow Swap.

Please Note: DNO User – this will be automatically populated and will display your Business Associate Code; Business Associate Name and Abbreviated Name when you log into the system

In order to view records of DNO Flow Swaps:

- Select **Location –** from the list that is associated to your DNO
- **Period From and To**
- Select **Status** – this is defaulted to **All** but other options include New; Withdrawn; Rejected; Accepted
- Click **Query** button

The system will then list all the DNO Flow Swap records associated with your selection criteria. The details can be viewed in multiple pages if necessary and will show:

- **DNO User - this will be automatically populated and will display your Business Associate Code; Business Associate Name and Abbreviated Name when you log into the system**
- **Reference Number** – this is automatically generated by the system and follows the format of DNOFSXXXXXX (X – sequence of digits)
- **Gas Day**
- **Initiated By** – indicating whether the Flow Swap has been initiated by you or National Grid NTS
- **Status** – will show either New; Withdrawn; Accepted; Rejected
- **Swap Out Location** – if multiple swap out Locations are selected the information will be shown as separate line items
- **Swap In Location -** if multiple swap in Locations are selected the information will be shown as separate line items
- **Start Time (HH24:MM) -** A display field in whole hours i.e. 17:00
- **End Time (HH24:MM) -** A display field in whole hours i.e. 19:00

- **Flow Swap (kWh) –** the Flow quantity to be swapped out from the swap out Location to the swap in Location
- **Action – (H) – History** - section 6.1.6 describes the History screen in more detail

Product – Flow Swap – DNO Flow Swap – Query

Product – Flow Swap – DNO Flow Swap – Query

7.4.2   Add Flow Swap

From the **Query** screen click **Add**

Please Note: DNO User – this will automatically display your Business Associate Code; Business Associate Name and Abbreviated Name

You will need to:

- Enter the **Gas Day –** you can enter the current Gas Day or any future Gas Day, however you cannot add a Flow Swap for an historical Gas Day
- **Multiple –** you can choose one to many and many to one but not many to many
- Select the **Swap Out Location** – mandatory field (from the list that is associated to your DNO)
- Select the **Swap In Location -** mandatory field (from the list that is associated to your DNO)
- Enter the effective **Start Time** from the drop box menu containing hours from 00-23
- Enter the effective **End Time** from the drop box menu containing hours from 00-23
- Click the **Query** button

Please Note: If the Start Time and End Time are both chosen as 06:00 then the Flow Swap will be for the whole Gas Day.

The system will calculate the **duration** and display the total number of hours of the Flow Swap. Once you have selected the above criteria, the following needs to be specified:

- **Flow Swap (kWh) -** a mandatory field where you need to specify the Flow Swap Quantity (kWh). If there are multiple locations each quantity has to be entered for each location.
- **Total (kWh) –** a display field that shows the total of the flow swap. Where there are multiple locations selected this gives the sum of the individual flow swaps.

Upon clicking the **Save** button a dialog box will appear for you to enter your remarks. Once you have done this the details you have entered will be saved.

Product – Flow Swap – DNO Flow Swap - Add
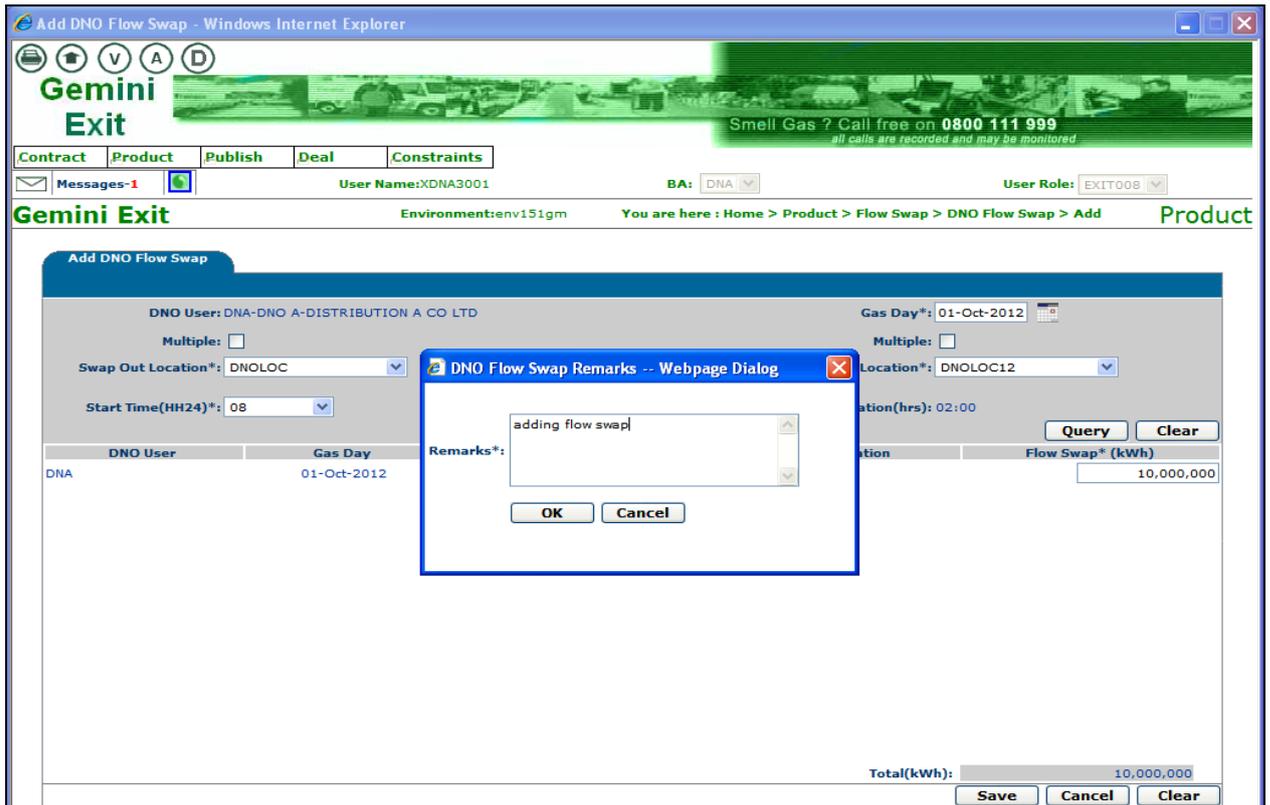
Product – Flow Swap – DNO Flow Swap - Add

7.4.3 Accept Flow Swap

You will be able to **Accept** a flow swap that has been initiated by National Grid NTS by clicking on the **Accept** button shown in the screen shot.

The Navigation Path for this screen is

Home≻**Product**≻**Flow Swap**≻**DNO Flow Swap.**

The **Accept** button will only be enabled if the flow swap has a status of **New**.

Once you have done this a confirmation box will pop up and you need to click **ok.** The flow swap record will be accepted in the system and the status will change. If you click on **cancel** the flow swap record will not be accepted and will remain as **New.**

New records can only be accepted by the end of the Gas Day. At the end of the Gas Day the system will reject all the remaining Flow Swap records that have a **New** status.
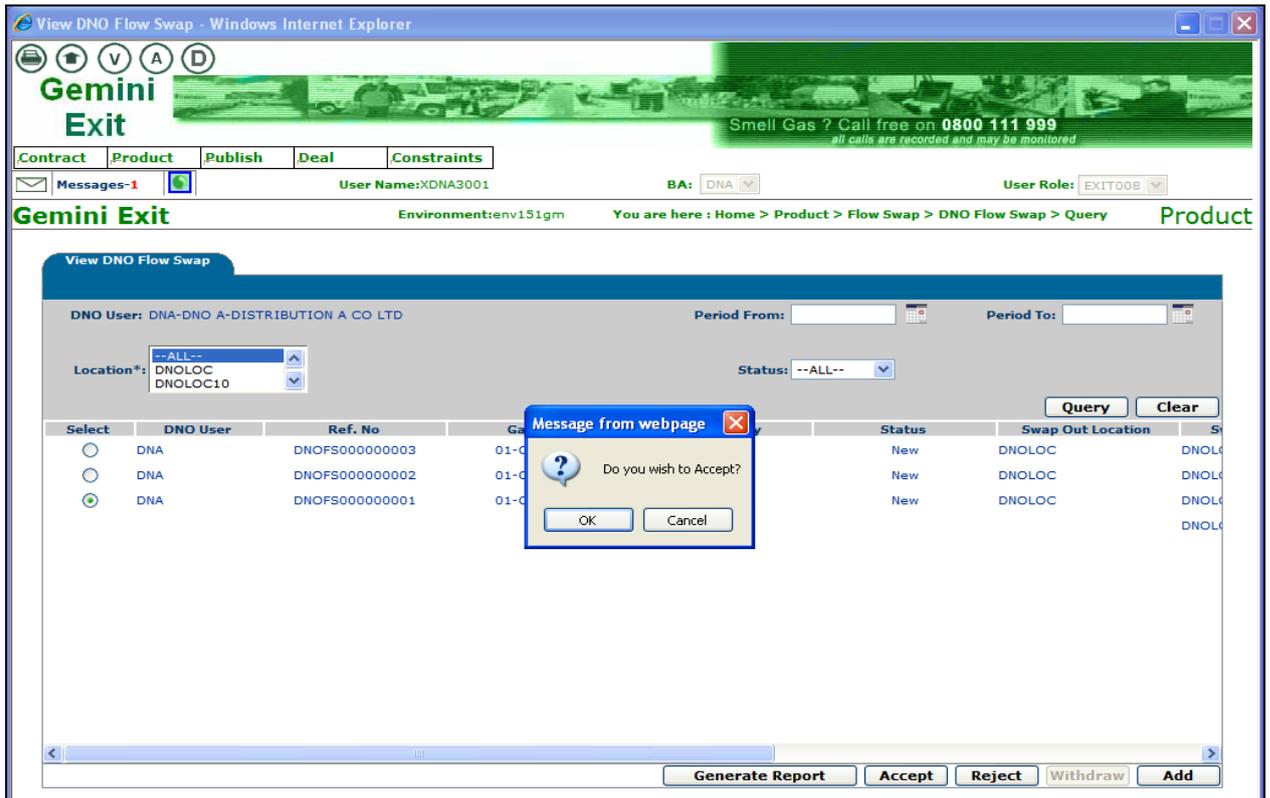
Product – Flow Swap – DNO Flow Swap – Query (Accept)

7.4.4   Reject Flow Swap

You can **Reject** a flow swap by selecting the appropriate radio button.

The Navigation Path for this screen is

Home▷Product▷Flow Swap▷DNO Flow Swap.

Upon clicking reject a dialog box will pop up for you to enter remarks. Enter in here the reason for the rejection and click ok. Once this has been done the flow swap record will be rejected in the system and the status changed. If you click cancel the flow swap record will remain as **New**.

The **Reject** button will only be enabled if the flow swap has a status of **New**. You can only manually reject a **New** record during the Gas Day because the system will automatically reject all **New** flow swaps at the end of the day.
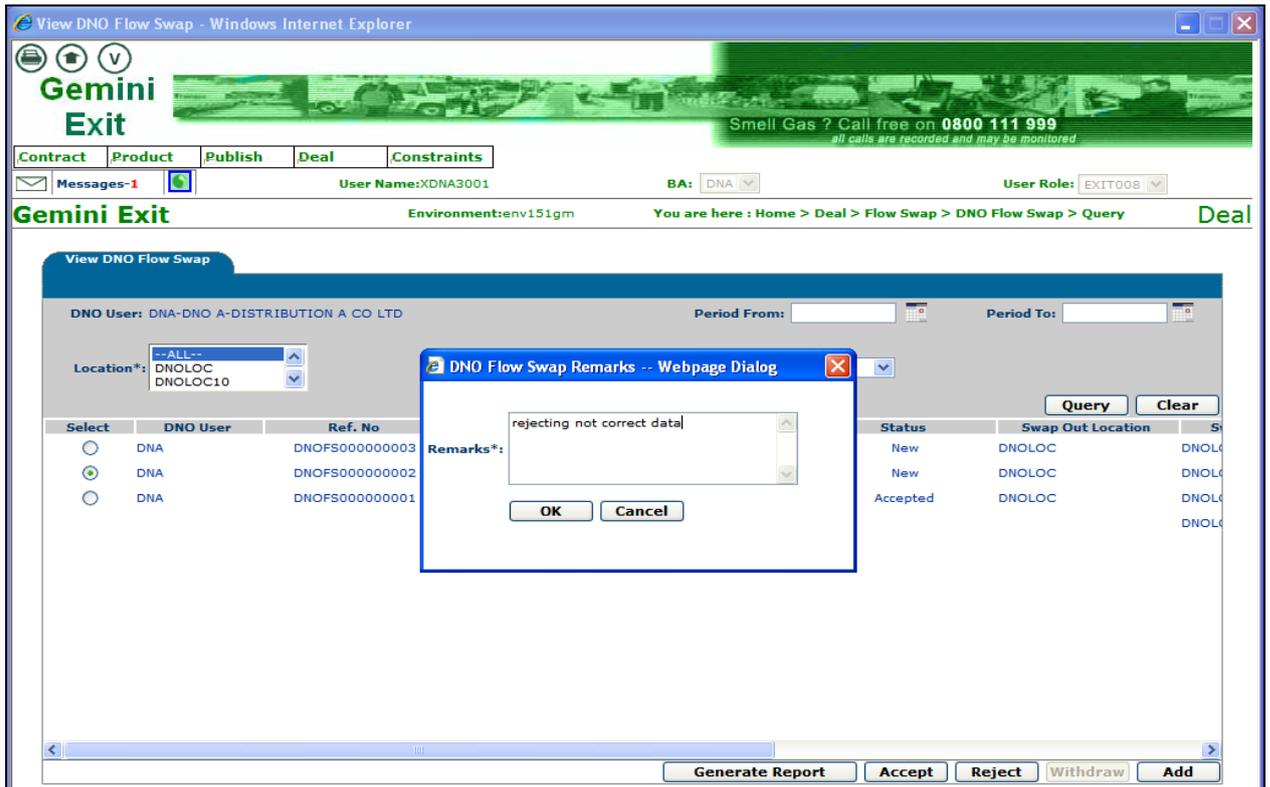
Deal – Flow Swap – DNO Flow Swap – Query (Rejection)

7.4.5   Withdraw Flow Swap

You will be able to **Withdraw** a Flow Swap by selecting the radio button at **New** status.

Home▷**Product**▷**Flow Swap**▷**DNO Flow Swap**

You can only do this if the flow swap has been initiated by you and it has not yet been accepted by National Grid NTS. This is done by clicking on the **Withdraw** button as shown in the screen shot below.
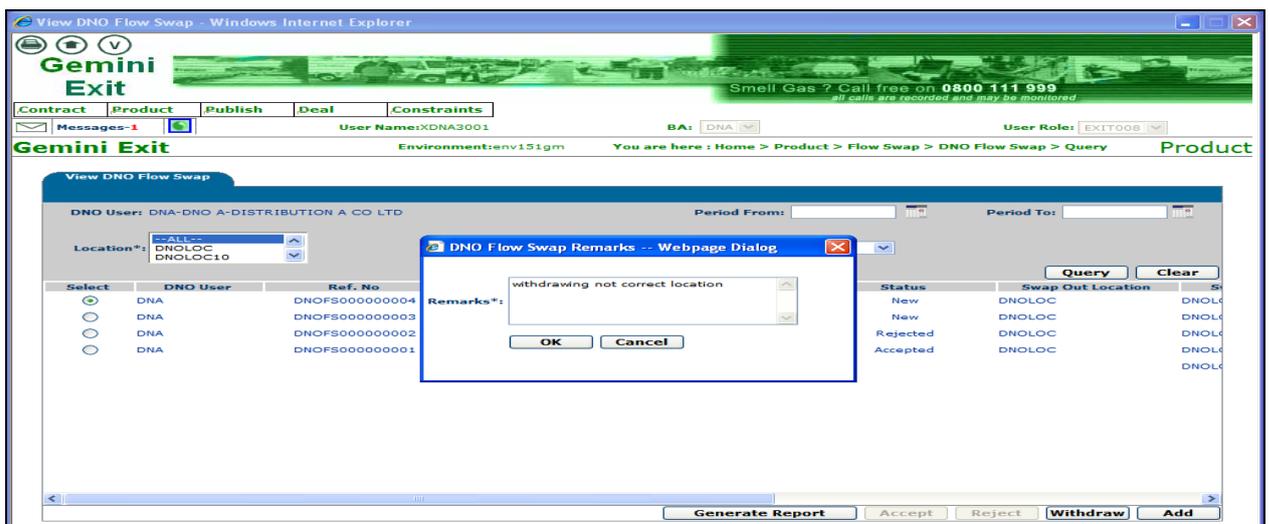
.**Product – Flow Swap – DNO Flow Swap – Query (Withdraw)**

7.4.6 DNO Flow Swap History

The screen shown below can only be accessed via the DNO Flow Swap query screen.   On clicking the **History** icon you can view the complete history for the specified flow swap. This will include any remarks entered.
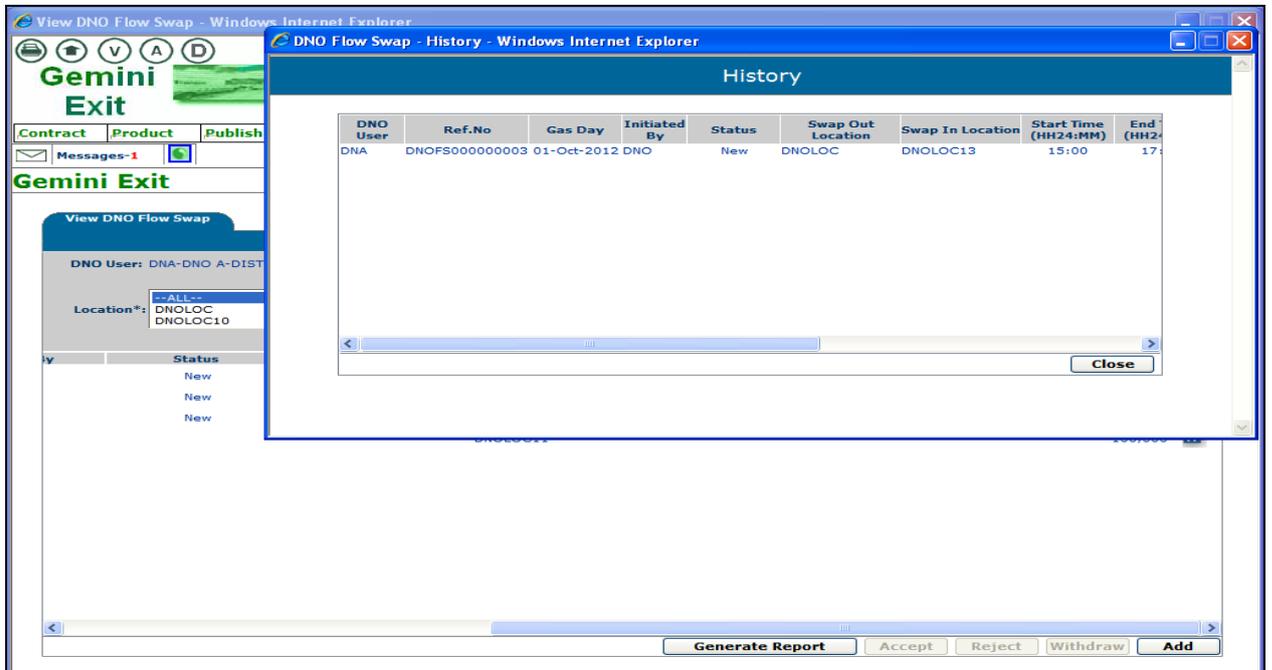
DNO Flow Swap – History

DNO Flow Swap – History