



National Transmission System Entry Capacity

Invoicing Discovery Day

NTS Entry Capacity Invoice (.NTE)

- NTS Entry Capacity is the booking of space on the National Transmission System and allows Users to deliver gas at system entry points
- National Grid Transmission sells System Entry Capacity at auctions
- Capacity is purchased at Aggregated System Entry points (ASEPs) e.g. Terminals and Storage points
- Users bid for capacity – requirement in kWh and price
- Auctions pay as bid – once closed allocated on highest price downwards
- Capacity available in quarters, months, days
- Price pence/kilowatt hour basis

NTS Entry Capacity Invoice (.NTE)

Primary Charges

Data Items:	Gemini	Charge Types Issued
<ul style="list-style-type: none"> Auction Type Bid Quantity Bid Price pence/kWh 	<p>LTC- QSEC AUCTION (Quarterly)</p> <p>MEC- MSEC AUCTION (Monthly) DRSEC AUCTION (Adhoc)</p> <p>RMC- ROLLING MONTHLY AUCTION</p> <p>SMC- SURRENDER MONTHLY AUCTION CEC – CAPACITY CONVERSION</p> <p>DAILY AUCTIONS</p> <p>DFC- DADSEC, WDDSEC</p> <p>DIC- DISEC</p>	<p>LTC MEC RMC SMC CEC DFC DIC</p> <p>csv file to Shippers</p> <p>Charges are: rate x quantity x no of days/100</p>

NTS Entry Capacity Invoice (.NTE)

- As part of EU Phase 2 a number of new Methods of Sale (MOS) have been introduced where Shippers can purchase capacity at Interconnection Points (IPs) – Bacton and Moffat.
- These new MOS require new IP charge types to be set up and associated to them.
- The new charges were effective from 1st November 2015 and were issued for the 1st time on 4th December 2015.

NTS Entry Capacity Invoice (.NTE)

Primary Charges Interconnector Points

Data Item	Gemini	Charge Types Issued
<ul style="list-style-type: none"> • Auction Type • Bid Quantity • Long Term - Actual and Premium price • Short Term - Premium and Reserve price • pence/kWh 	IPY- IPAYSEC AUCTION (Yearly)	IPY
	IPQ- IPAYQSEC AUCTION (Quarterly)	IPQ
	IPM- IPRMSEC AUCTION (Monthly)	IPM
	DAILY AUCTIONS	IPI
	IPD- IPDADSEC, IPWDDSEC	IPD
	IPI- DISEC	BSS
	BACTON SPLIT	BSB
	BSS- BBSEC	CMP
	BSB- BSBB	LTU
	SURRENDER and USE IT OR LOSE IT	csv file to Shippers
CMP- CMPSUR	Charges are: rate x quantity x no of days/100	
LTU- LTUIOLI		

NTS Entry Capacity Invoice (.NTE) Primary Charges

Bacton Split

- As part EU phase 2 European changes Bacton Split resulted in two new charge types (and adjustment charge types ABA and ABS) to allow the buyback of long term capacity at legacy Bacton BA and the resale at the two new Bacton ASEPs BI and BU.

Data items:	Gemini	Charge types Issued
<ul style="list-style-type: none">EntitlementBid price p/kWhNo of days	BSB – Bacton Split Buyback Credit BSS – Bacton Split Sell Debit	BSB BSS csv file to Shippers Charges are: bid price x entitlement x no of days/100

NTS Entry Capacity Overruns

Overruns occur when:

- Allocated capacity is greater than Net Capacity Entitlements at an ASEP
- Allocations are received from the Claims Validation Agency (CVA) at M+15
- Charge type is OVR

Negative Overruns occur when:

- A shipper trades more capacity than they own at an ASEP
- Charge type is NVR

All overruns are invoiced one month in arrears following close out

- Charge Formula: $\text{Overrun Quantity} \times \text{Overrun Rate} / 100 = (\text{£s})$

NTS Entry Capacity Invoice (.NTE) Neutrality

	Gemini	Charge Types Issued
Financial values from Gemini feed Revenue, Costs and Adjustment Neutrality pots (Smear based on User End of Day Firm Capacity/ total system End of Day Firm Capacity)	Within Day Daily Firm and Interruptible System Entry Capacity includes interconnectors (REV) Negative OVERRUNS and OVERRUNS (1 month in arrears ARS) Entry Capacity bought back Non obligated capacity sold above baseline	REV (current month) ARS (historical month) csv file to Shippers

Key Dates

- 1st of the month - Neutrality job runs
- 1st of the month - Invoice creation process
- 4th business day - Invoice issue process
- Due 20th day of the month of issue – Invoice Payment Due Date

- The invoice payment is dealt with by National Grid Credit Risk at Warwick.

NTS Exit Capacity Invoice (.NXC)

- NTS Exit Capacity is the booking of space on the National Transmission System.
- Allows Users to take gas off at system NTS exit points
- Initial capacity values were carried over from the previous NTS Exit capacity regime.
- National Grid Transmission sells NTS System Exit Capacity at NTS exit points. Annual application for NTS enduring Exit Capacity and auctions for daily capacity at within and before the day auctions.
- Users bid for capacity – requirement in kWh and price p/kWh
- Auctions pay as bid – once closed allocated on highest price downwards

NTS Exit Capacity Invoice (.NXC) Primary Charges

Data Items	Gemini	Charge Types Issued
<p>Registered capacity Application request</p> <p>Auction Type</p> <p>Bid Quantity</p> <p>Actual or Bid Price p/kWh</p>	<p>LONG TERM APPLICATIONS NXA- IFLEC- Initial Prevailing AIEFLEC, ADEFLEC- adhoc inc/dec AFLEC – annual inc, EAFLEC – enduring inc/dec PARCA – reservation for enduring capacity</p> <p>DAILY AUCTIONS NXD- WDDNEX,DADNEX NXO- DONEX</p> <p>SURRENDER AUCTION NXB- DBNEX</p>	<p>NXA NXD NXO NXB</p> <p>csv file to Shippers Charges are: rate x quantity x no of days/100</p>

NTS Exit Capacity Invoice (.NXC) Primary Charges

Data Items	Gemini	Charge Types Issued
<ul style="list-style-type: none"> • Offer Price NXF XBF Exercised price XBE Premium price XBP • Allocated reduction Qty NXF • Allocated offer Qty XBF • Allocated/Exercised Qty XBP XBE 	<p>NXF - Offtake flow reduction</p> <p>XBF - EXBF Forward contract</p> <p>XBP - EXBO Options contract</p> <p>XBE - EXBO Options contract</p>	<p style="text-align: right;">NXF</p> <p style="text-align: right;">XBF</p> <p style="text-align: right;">XBP</p> <p style="text-align: right;">XBE</p> <p style="text-align: center;">csv file to Shippers</p> <p>Credits are: rate x quantity x no of days/100 x -1</p>

NTS Exit Capacity

- As part of EU Phase 2 a number of new Methods of Sale (MOS) have been introduced where Shippers can purchase capacity at Interconnection Points (IPs) – Bacton and Moffat
- These new MOS require new IP charge types to be set up and associated to them
- The new charges were effective from 1st November 2015 and were issued for the 1st time on 4th December 2015

NTS Exit Capacity Invoice (.NXC)

Primary Charges Interconnector Points

Data Items	Gemini	Charge Types Issued
Auction Type	EIL- IPAYNEX (Yearly)	EIL
	EIL- IPAQNEX (Quarterly)	EIR
Bid Quantity	EIR- IPRMNEX (Monthly)	EIO
	DAILY AUCTIONS	EID
Long term - Actual and Premium price,	EIO- IPDONEX	SUC
Short term - Premium and Reserve price	EID- IPWDDNEX, IPDADNEX	LUC
pence/kWh	SURRENDER AUCTIONS	
	SUC- CMPSURR	csv file to Shippers
	LUC- LTUIOLI	

NTS Exit Capacity Overruns

- **Overruns occur when:**
- Aggregate allocation/measurement for all users exceeds aggregate Net Entitlement for all users at an NTS Exit point.
 - To calculate an Exit Overrun you will need to work out the following:
 - Aggregate Overrun Qty all users at NTS Exit point
 - Individual Overrun Qty = Allocation Qty – Net Entitlement Qty
 - Sum of Individual Overrun Quantities
 - **Overrun Qty = Aggregate Overrun Qty * (Individual Overrun Qty / Sum of individual Overrun Quantities)**
 - All overruns are invoiced one month in arrears following close out
 - **Charge type is XOV, Formula:**
 - **Overrun Quantity X Overrun Rate / 100 = (£s)**

Key Dates

- 1st of the month - Invoice creation process
- 4th business day - Invoice issue process
- Due 20th day of the month of issue – Invoice Payment Due Date
- The invoice payment is dealt with by National Grid Credit Risk at Warwick.

Energy Balancing

- The Energy Balancing regime involves maintaining the balance between system inputs and system outputs
- National Grid Transmission is responsible for the safety and security of the system and to ensure the physical balance
- National Grid do not make a profit or a loss from carrying out this activity
- Users have a financial responsibility to balance the system and there are incentive charges to help them accomplish this.

Energy Balancing

INPUTS

Terminals

Storage Withdrawal

Trade buys
OTC
OCM (ICE)



OUTPUTS

Meters DM & NDM

Storage Injection

Trade Sells
OTC
OCM (ICE)

National Balancing Point (NBP)
Inputs - Outputs = Imbalance

EBI charges based on what you say you will do and what you actually do – cashout and scheduling

Energy Balancing Invoice – Primary Charges

Data Items	Gemini	Charge Types Issued
<ul style="list-style-type: none">Daily Energy Inputs Noms and Allocations	DCS - Cashout DCT	DCS DCT
<ul style="list-style-type: none">Outputs Noms and Allocations	ESC - Entry Scheduling DXS	ESC DXS
<ul style="list-style-type: none">System Prices	EXS - Exit Scheduling	EXS
<ul style="list-style-type: none">Trades	TTS National Grid trade sell TTB National Grid trade buy	TTS (ICE) TTB (ICE) csv file to Shippers

Gemini invoice Issued via the IX on the 23rd business day following end of the current billing month

Energy Balancing Invoice - Neutrality

Data Items	Gemini	Charge Types Issued
<ul style="list-style-type: none">Daily Energy Inputs Noms and AllocationsOutputs Noms and AllocationsSystem PricesTrades (Smear based on daily UDQI + UDQO excl Trades)	Cashout Entry Scheduling/ Exit Scheduling National Grid Trade Sell National Grid Trade Buy Adjustments	CNU (current month) ADS (historical months) csv file to Shippers

Financial values above feed Neutrality pot
Included as part of invoice issued via the IX

System Prices

- SAP is calculated each day :
- $\text{Sum of all (Accepted Trade Bids x Price) divided by Sum of all Trade Bid Quantities}$
- Scheduling charges use small percentage of SAP in calculation of charges
- SAP is set by Trades on the OCM
- SAP does not include bids at Constrained Terminals
- If no Trade action takes place on the day then SAP is calculated as an average of the previous 7 days SAPs
- UNC section F1.2

System Marginal Prices

- Cashout charges use SMP Buy and Sell prices
- "**System Marginal Buy Price**" is the greater of:
 - (a) the System Average Price plus the Default System Marginal Price; and
 - (b) the price in pence/kWh which is equal to the highest Market Offer Price in relation to a Market Balancing BUY Action taken for that day
- "**System Marginal Sell Price**" is the lesser of:
 - (a) the System Average Price less the Default System Marginal Price; and
 - (b) the price in pence/kWh which is equal to the lowest Market Offer Price in relation to a Market Balancing SELL Action taken for that Day
- SMP is set by National Grid trades only
- SMP does not include bids at Constrained Terminals.
- UNC F 1.1.2 (h) and F1.2
- UNC F1.2.1 and F 1.1.2 f) for Default system marginal price

Key Dates

- D + 5 - Output energy closeout- UNC section E1.8
- M + 15 - Input energy closeout- UNC section E1.8
- M + 19 - Neutrality process
- M + 21 - Invoice creation process
- M + 23 - Invoice issue process
- D + 12 - (After M + 23)- Invoice Payment Due Date

- M – refers to business day. D refers to calendar day

- The invoice must be paid in full by the Invoice Payment Due Date – no monies can be withheld – managed by Xoserve's Credit and Risk team