Interruption Calculator User Guide

1. General

The Interruption Calculator has been designed to help Gas Transporters, Shippers and customers with the new Interruption contract tender process. When bidding for an Interruption contract Users will have to supply specific pricing information, the Interruption Calculator allows the User to approach these pricing decisions from different angles.

2. Menu Screen

Item	Description
Full Screen On	This enables more of your screen to be used for viewing the Calculator
Full Screen Off	This disables 'Full Screen Mode'
Fully Exercised Contract Value	Navigates to the '*Fully Exercised Contract Value*' screen
Overall Tranche Price	Navigates to the '*Overall Tranche Price*' screen
Option & Exercise Payments	Navigates to the '*Option & Exercise Payments*' screen
Option & Exercise Price	Navigates to the '*Option & Exercise Price*' screen

3. Definitions

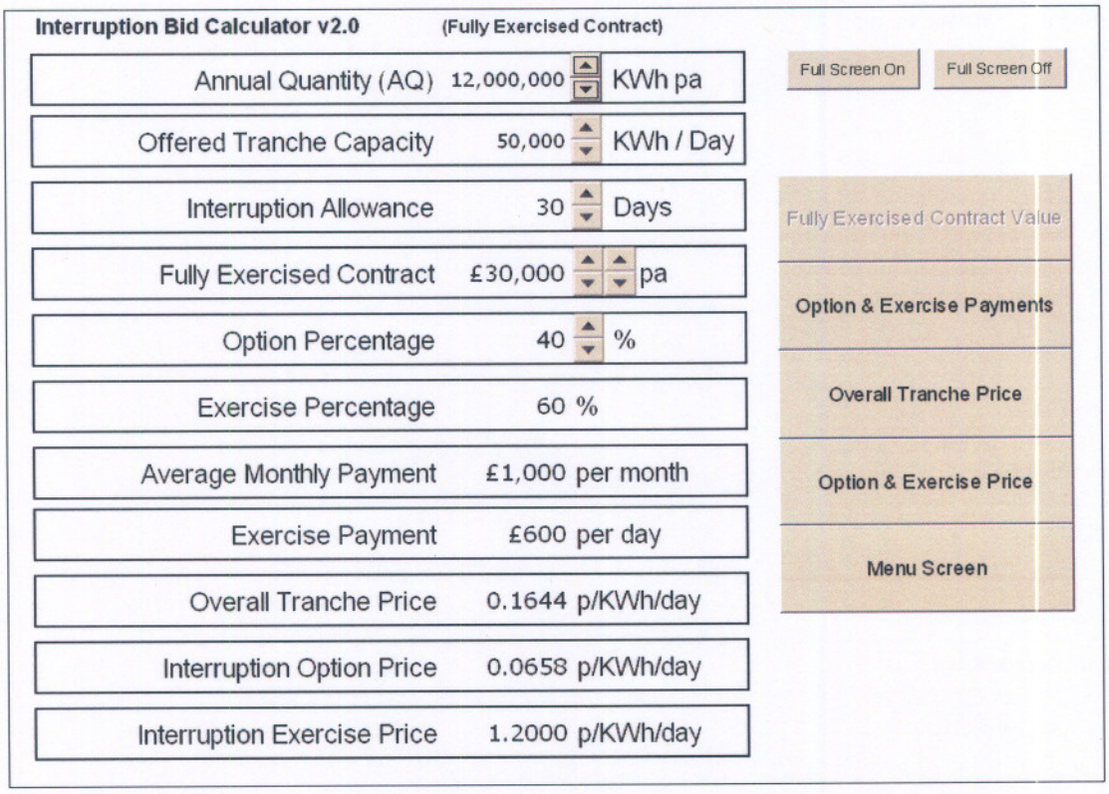
The other screens within the Interruption Calculator all use the same layout, below are some definitions for each of the fields used. The fields in bold italic are required when placing bids for interruption contracts.

Item	Description
Annual Quantity (AQ)	This is the Annual Quantity (consumption) in KWh for the Supply Point. In order to be eligible for an Interruption contract this must be greater than 5,860,000 KWh per annum
Offered Tranche Capacity	Is the amount of Supply Point Capacity (KWh / Day) at the Supply Point that is to be offered for interruption. This value can not exceed the SOQ for the Supply Point. ***This must be supplied when bidding for an Interruption contract***
Interruption Allowance	The number of days in an Interruptible Period (Gas Year) on which an Interruptible Tranche of Supply Point Capacity may be interrupted. ***This must be supplied when bidding for an Interruption contract***
Fully Exercised Contract	The total amount (£ - option & exercise) payable to the User if all the days of Interruption Allowance are utilised within the period
Option Percentage	The percentage of the Fully Exercised Contract value that will be paid as the monthly Option Payment. The Option and Exercise percentage must total 100%. If the Option Percentage is set to 100% the Interruption Exercise Price will be 0.00p and no additional payment would be made for actual interruption
Exercise Percentage	The percentage of the Fully Exercised Contract value that will be paid for the days of actual Interruption. The Option and Exercise percentage must total 100%
Average Monthly Payment	The average amount (£) that the User will be paid on a monthly basis regardless of whether any interruption takes place
Exercise Payment	The amount (£) that is paid to the User for each day of interruption that takes place
Overall Tranche Price	The amount (in p/KWh/day) of a Fully Exercise Contract
Interruption Option Price	The amount (in p/KWh/day) that will be paid to the User each month regardless of whether any interruptions take place. ***This must be provided when bidding for an Interruption contract***
Interruption Exercise Price	The amount, if any, (in p/KWh/day) that will be paid to the User for each day of interruption that occurs within the period. ***This must be supplied when bidding for an Interruption contract***

4. Fully Exercised Contract Value screen

The Fully Exercised Contract Value screen allows the user to enter the total value that they would like the contract to be worth if all of the Interruption Allowance was utilised (i.e. the Transporter interrupted the Supply Point for the maximum number of days). The user can vary the Interruption Allowance (no of days) and the Option and Exercise Percentage. The change in percentage will be reflected in the 'Average Monthly Payment' and the 'Exercise Payment'

The fields with toggle buttons can be adjusted by the user (click 'up' the values will increase, click 'down' the value will decrease) all other fields will be automatically calculated. The fields that have more than one set of toggle buttons can be used to adjust the values in different increments.



Once the user is happy with the input values the 'Interruption Option Price' and 'Interruption Exercise Price' provide the appropriate values to submit with the interruption bid.

4.1 Fully Exercised Contract Value screen – example

In the screen shot on the previous page, the user has selected a value of £30,000 in the 'Fully Exercised Contract' field and an 'Interruption Allowance' of 30 days. This means that, if the Transporters interrupt all 30 days that are offered in the contract, the total price for the year paid by the Transporter will be £30,000.

The user can then decide, by adjusting the 'Option Percentage', how much of this they want to be paid as a guaranteed monthly payment and how much they wish to paid for the interrupted days. In the example above the user has selected 40% 'Option Percentage'; this means that £12,000 of the £30,000 will be paid over the 12 months. This equates to an 'Average Monthly Payment' (as displayed) of £1,000. This will be paid regardless whether the Transporter interrupts the site or not.

As the 'Option Percentage' has been set to 40%, the 'Exercise Payment' is automatically calculated to be 60% (as they must always total 100%). This means that £18,000 of the £30,000 will be paid for actual Interruption. As the 'Interruption Allowance' is 30 days this equates to an 'Exercise Payment' of £600 – for each day that the Transporter interrupts they will pay £600.

You can work this back to the 'Fully Exercised Contract Payment' by saying:

(Average Monthly Payment x 12months) + (Interruption Allowance x Exercise Payment)
= (£1000 X 12) + (30 * £600) = £12,000 + £18,000 = £30,000.

The 'Interruption Option Price' is in pence per KWh per day; this is automatically calculated for the user and, in this example with an 'Offered Tranche Capacity of 50,000KWh, is equal to 0.0658 p/KWh/day. This value is important as it is used when bidding for Interruption contracts.

This can also be worked back by saying:

(£12,000 * 100p) / 50,000KWh / 365 days = 0.0658 p/KWh/day.

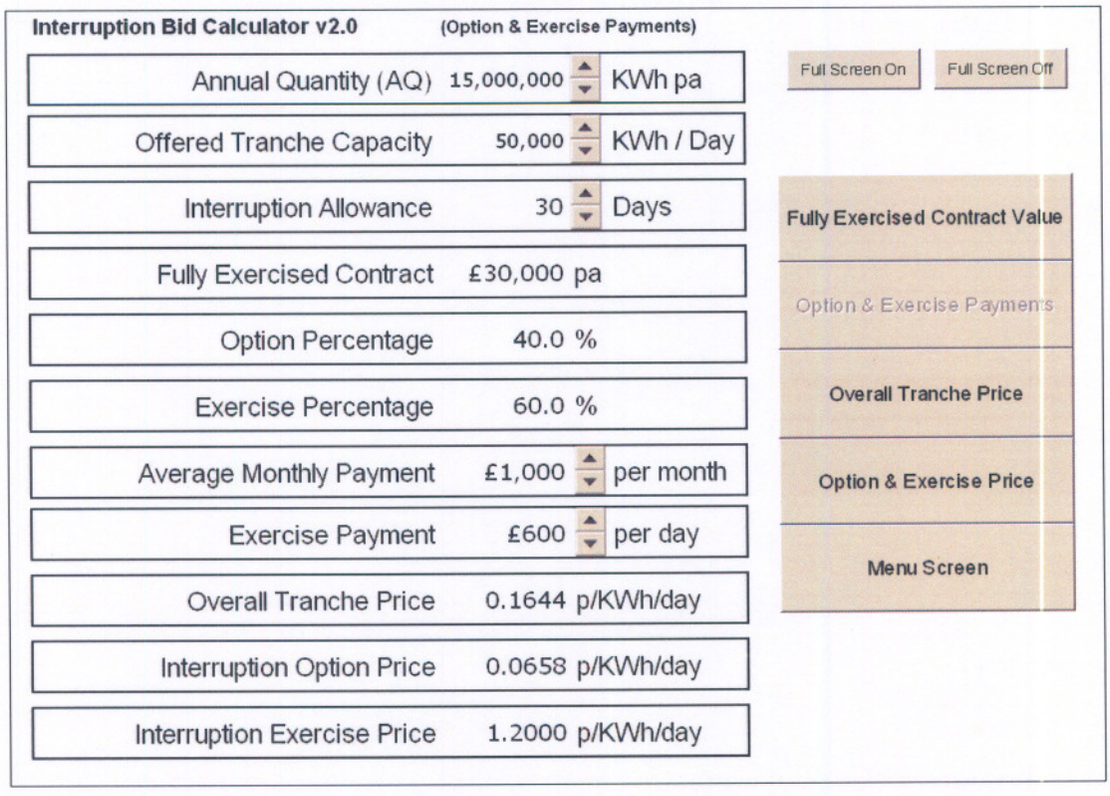
The 'Interruption Exercise Price' is also expressed in pence per KWh per day; this is automatically calculated for the user and, in this example, is equal to 1.2000 p/KWh/day. This value is important as it is used when bidding for Interruption contracts.

This can also be worked back by saying:

(£18,000 * 100p) / 50,000KWh / 30 days = 1.2000 p/KWh/day.

5. Option and Exercise Payments screen

The Option and Exercise Payments screen allows the user to enter the 'Average Monthly Payment' that they wish to receive and the 'Exercise Payment' for each day of actual interruption. Combined with the 'Offered Tranche Capacity' and the 'Interruption Allowance' this will then produce the values for 'Interruption Option Price' and 'Interruption Exercise Price' that are required for the interruption bid.

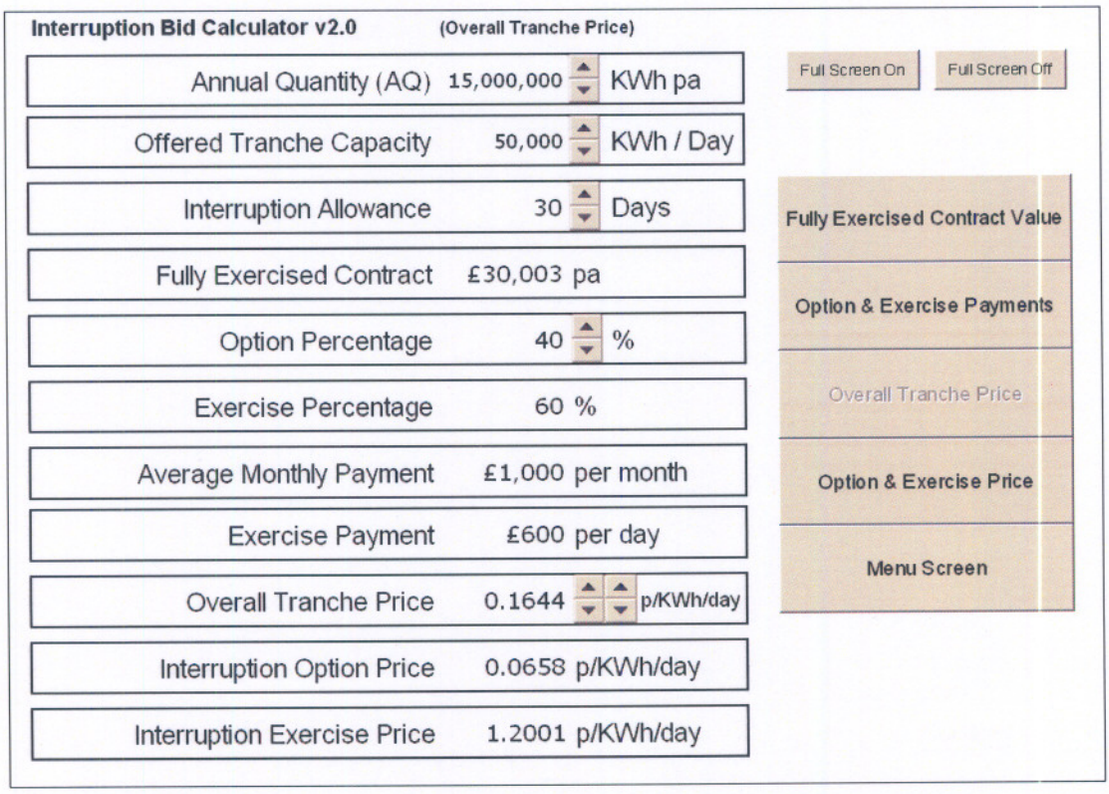


5.1 Option and Exercise Payments screen - example

In the screen shot shown above the user has entered the values for the 'Average Monthly Payment' and the 'Exercise Payment'. This is the same as the example shown in 4.1 which produces the same values for 'Interruption Option Price' and 'Interruption Exercise Price'; these values are required for the interruption bid.

6. Overall Tranche Price screen

The Overall Tranche Price screen allows the user to enter the 'Overall Tranche Price' and also vary the 'Interruption Allowance' and the 'Option Percentage'. This screen is likely to be of more use to someone that wishes to compare a number of sites by a common factor; the Overall Tranche Price is useful in this respect as it represents the total cost in p/KWh/Day.

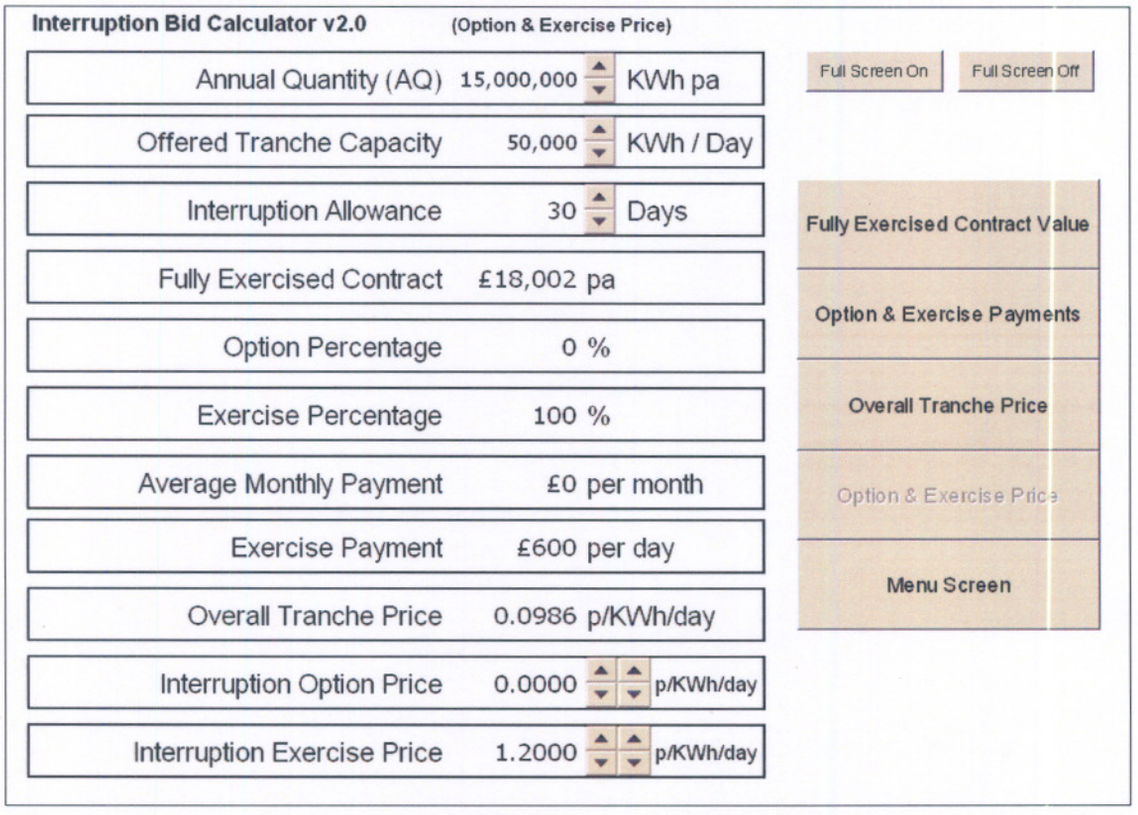


6.1 Overall Tranche Price screen - example

Once again, the screen shot above shows the same scenario as in 4.1 & 5.1. This time the user has entered the 'Overall Tranche Price' and the 'Option Percentage'; you can see that the same values as seen in the previous examples are then automatically calculated.

7. Option and Exercise Price

The Option and Exercise Price screen allows the user to enter the 'Interruption Option Price' and the 'Interruption Exercise Price' and also vary the 'Interruption Allowance'. This screen is likely to be of use to someone that is bidding for a number of sites, which may have varying amounts of Capacity to Offer, but wishes to place a similar value upon the Capacity.



7.1 Option and Exercise Price - example

Once again, the screen shot above shows the same scenario as in the previous pages. This time the user has entered the individual 'Interruption Option Price' and 'Interruption Exercise'; again, you can see that the same values as seen in the previous examples are then automatically calculated.

8. Contacts

Consumers – contact your shipper in the first instance

Shippers – contact Northern Gas Networks at interruption@northerngas.co.uk