

## Frequently Asked Questions

### Applications for Capacity

1. How does conditional bidding work in practice?  
ans: *Conditional bids allow a customer to place one bid for a volume capacity across the available LNG Storage facilities. See examples in appendix one.*
2. Can the quantity as well as the price of a conditional bid be varied?  
ans: *No, the quantity for the primary bid is fixed for each subsequent conditional bid.*
3. Why are we required to attribute a value to the bundled unit?  
ans: *The attribution is used to determine the Applicable Storage Deliverability Charge Rate, Applicable Storage Injectability Charge Rate and Applicable Storage Space Charge Rate for the purposes of the Unified Network Code (UNC).*
4. When is the constrained rebate calculated and applied?  
ans: *National Grid calculates the rebate using the PC52 methodology as agreed in 2000. The rebate is then applied to the bid price after the capacity has been allocated, effectively making the service price even lower.*
5. We assume that LNG Storage runs pay as bid auctions and there is nothing in the Unified Network Code or any other documentation that means that you pay at the average cleared price for the facility?  
ans: *The LNG Storage auction is 'pay as bid'.*
6. Can we fax over the tender if it is too late for courier?  
ans: *Yes, fax arrangements are detailed in the relevant tender documentation.*

### Invoicing and Credit

7. What are LNG Storage's Credit Arrangements  
ans: *Provided you are a licensed gas shipper and are signatory to the UNC, all the LNG Storage service and credit terms are detailed within the UNC (Section Z). No documentation needs to be "signed" as such, with the exception of your application form. In the event that you make a successful bid, the credit provisions will be in accordance with the 'credit rules', which are available on our website. LNG Storage would then run a credit check in the event that you fail to meet investment grade status, we would request additional security from you – prepayment is usually our preferred option.*
8. When / how are capacity and commodity costs generated?  
ans: *Capacity costs are effectively incurred on a daily basis, for the period for which the capacity is held, and invoiced in the subsequent month. Commodity costs are also invoiced monthly following the month in which the costs were incurred.*
9. What are the payment terms for capacity and commodity charges?

ans: *The invoice terms are as defined in Section Z8 of the UNC. In summary however, an invoice is generated by the 7<sup>th</sup> business day following the previous calendar month (the "invoicing period") and payment is due on the later of the 12<sup>th</sup> day after the invoice was deemed to be received or the 20<sup>th</sup> day after the end of the invoicing period.*

## **Commercial Operations**

10. Q: What is the process for bringing the sites to short stand-by and how do you charge for it?

ans: *Facilities will be held at the shortest withdrawal lead times on a Day when at 16:00 hours on the previous Day either system demand is greater than 75% of estimated peak demand or "bid to buy prices" for the Day are equal to the average summer gas price plus the injection commodity price plus the clearing price for each facility minus 0.1 pKWh and at other times at the discretion of LNG Storage. At other times attempts to be a "catch all" criteria and essentially if we are requested to go to short standby by a shipper we will go.*

ans: *There is a real cost for LNG Storage to be at short standby and hence we try to discourage users requesting us to be at short standby all the time. In reality we do not charge for the request to bring us to short standby if real requirement is foreseen. When at short standby the site will be at 2 hour standby unless it is flowing when it reduces to 1 hour standby (i.e. if it stops flowing it will revert to 2 hour). Once placed at short standby it remains at that state for the entire gas day.*

11. How is the shipper made aware of current site standby states and how easily can these be changed?

ans: *Should you be successful in the capacity tender, LNG Storage will grant you access to and offer training in the use of our CALMS system - it is within CALMS that you can easily view and alter standby states.*

12. Can we trade LNG (gas & capacity)?

ans: *UNC service terms allows injection, space, deliverability and gas-in-store to be traded as well as the use of interruptible injection and deliverability capacity with associated overrun charges*

13. Will a shipper require system entry capacity (NTS) for withdrawals or exit capacity for injections to the facility? If so, what is the likely cost of such and is it available on an interruptible basis?

ans: *With regards to entry capacity (withdrawals) we would recommend that you buy on either a day ahead or within day basis – floor prices will be contained within National Grid's transportation charging statement. However we recommend that you perform your own analysis of probable Entry Capacity availability, taking account of the SO Incentive.*

14. How does the constrained storage process work?

ans: *National Grid can only 'constrain on' over 85% of peak day demand in that location (determined by flows through specific compressors), which would be likely to be a high priced day anyway. Additionally the constrained monitor drops off in Q1.*

15. Dynevor is not constrained again; can National Grid re-classify Dynevor as constrained mid storage year?

ans: *No, the Constrained Storage statement sets the constraints for the full Storage year and cannot be reviewed by National Grid until the following Storage Year.*

16. Explain fill periods...

ans: *The UNC requires LNG Storage to publish fill periods 'from empty' however based on stock levels at the start of a storage year, quicker fill periods can be achieved with the use of overruns, trades of gas in store or the purchase of additional injection rights on the secondary market.*

### **Customer Access & LNG Management System (CALMS)**

17. How are nominations made under CALMS? How straightforward is setting up this facility and is it easy to use?

ans: *LNG Storage will offer you training on how to use CALMS or if we are time constrained we could input the first nominations on your behalf. The system is straightforward to use and there is a comprehensive manual which describes the functionality of CALMS in sufficient detail*

18. What is the CALMS site address?

ans: <https://www.lngservices.co.uk>

19. What security surrounds CALMS?

ans: *128 bit encryption by Verisign, firewall protection, username and password to login*

20. What are the Password and User Name administration details (password rules, ownership, etc)?

ans: *Password changed once a month, an admin account is given to the customers to manage their own accounts e.g. disable accounts, create accounts and change passwords.*

21. What is the impact of failure of communication route?

ans: *LNG Storage has a full Disaster recovery web server, internet connection and database. If this fails we move to fax.*

22. Does CALMS require a leased line?

ans: *No leased line required.*

23. Does CALMS use http/https? Ports?

ans: *CALMS is accessed via https, no special port access is required*

### **Further information available at:**

<http://www.nationalgrid.com/uk/gas/lngstorage>

## Appendix 1: Conditional Bidding Examples

### Example 1

A user requires 100,000,000 units of capacity. The user values a net service including gas at 60p/therm. Therefore for capacity (at each facility) this works out as follows:

	Avonmouth	Dynevor	Glenmavis	Partington
<b>Value p/therm</b>	60.0	60.0	60.0	60.0
<b>Minus cost of injection p/therm</b>	5.6	5.8	8.2	7.6
<b>Minus cost of withdrawal p/therm</b>	0.6	0.5	0.4	0.5
<b>Add constrained rebate p/therm</b>	5.5	0.0	0.0	0.0
<b>Minus lost value for being constrained p/therm</b>	1.0	0.0	0.0	0.0
<b>Minus cost of summer gas p/therm</b>	17.3	17.3	17.3	17.3
<b>Add additional value for shorter injection period</b>	0.0	1.0	0.0	0.0
<b>Add additional value for shorter duration of service</b>	0.0	0.0	3.0	0.0
<b>Value to bid p/therm</b>	41.1	37.4	37.2	34.6
<b>Value to bid p/kWh</b>	1.4029	1.2764	1.2686	1.1823

*The table is for illustration purposes only and any values placed are for example purposes only.*

The user wishes to secure capacity at any facility but only requires 100,000,000 units of capacity (e.g. 100 GWh of space and associated deliverability and injection).

For each primary bid, Users may make up to 4 conditional bids providing that the following conditions are satisfied:

- Each of the conditional bids and the primary bid must be at different facilities; and
- Each conditional bid must be less than or equal to either the previous conditional bid or primary bid; and
- Each price bid must be greater than or equal to than the clearing price at which the primary or conditional bid option applies.

Therefore on the basis of the attribution above the users will need to bid as follows:

- Primary bid Avonmouth for 100,000,000 units at a price of 1.4029
- Conditional bid one at Dynevor for a price of 1.2764
- Conditional bid two at Glenmavis for a price of 1.2686
- Conditional bid three at Partington for a price of 1.1823

If the clearing price at Avonmouth is 1.4029 or lower then the user will be allocated capacity at Avonmouth. If the clearing price is higher then the bid will be considered at Dynevor and so on.

The maximum a user may be allocated is 100,000,000 units of capacity.

## Example 2

A user requires 100,000,000 units of capacity. The user values a net service including gas at 60p/therm for 50,000,000 units of capacity and 50p/therm for the other 50,000,000 units of capacity. Therefore for capacity (at each facility) this works out as follows:

### **First 50,000,000 units**

	<b>Avonmouth</b>	<b>Dynevor</b>	<b>Glenmavis</b>	<b>Partington</b>
<b>Value p/therm</b>	60.0	60.0	60.0	60.0
<b>Minus cost of injection p/therm</b>	5.6	5.8	8.2	7.6
<b>Minus cost of withdrawal p/therm</b>	0.6	0.5	0.4	0.5
<b>Add constrained rebate p/therm</b>	5.5	0.0	0.0	0.0
<b>Minus lost value for being constrained p/therm</b>	1.0	0.0	0.0	0.0
<b>Minus cost of summer gas p/therm</b>	17.3	17.3	17.3	17.3
<b>Add additional value for shorter injection period</b>	0.0	1.0	0.0	0.0
<b>Add additional value for shorter duration of service</b>	0.0	0.0	3.0	0.0
<b>Value to bid p/therm</b>	41.1	37.4	37.2	34.6
<b>Value to bid p/kWh</b>	1.4029	1.2764	1.2686	1.1823

### **Second 50,000,000 units**

	<b>Avonmouth</b>	<b>Dynevor</b>	<b>Glenmavis</b>	<b>Partington</b>
<b>Value p/therm</b>	50.0	50.0	50.0	50.0
<b>Minus cost of injection p/therm</b>	5.6	5.8	8.2	7.6
<b>Minus cost of withdrawal p/therm</b>	0.6	0.5	0.4	0.5
<b>Add constrained rebate p/therm</b>	5.5	0.0	0.0	0.0
<b>Minus lost value for being constrained p/therm</b>	1.0	0.0	0.0	0.0
<b>Minus cost of summer gas p/therm</b>	17.3	17.3	17.3	17.3
<b>Add additional value for shorter injection period</b>	0.0	1.0	0.0	0.0
<b>Add additional value for shorter duration of service</b>	0.0	0.0	3.0	0.0
<b>Value to bid p/therm</b>	31.1	27.4	27.2	24.6
<b>Value to bid p/kWh</b>	1.0617	0.9352	0.9274	0.8411

*The tables are for illustration purposes only and any values placed are for example purposes only.*

The user wishes to secure capacity at any facility but only requires 100,000,000 units of capacity (e.g. 100 GWh of space and associated deliverability and injection).

For each primary bid, Users may make up to 4 conditional bids providing that the following conditions are satisfied:

- Each of the conditional bids and the primary bid must be at different facilities; and
- Each conditional bid must be less than or equal to either the previous conditional bid or primary bid; and
- Each price bid must be greater than or equal to than the clearing price at which the primary or conditional bid option applies.

Therefore on the basis of the attribution above the users will need to bid as follows:

Bid number one.

- Primary bid Avonmouth for 50,000,000 units at a price of 1.4029
- Conditional bid one at Dynevor for a price of 1.2764
- Conditional bid two at Glenmavis for a price of 1.2686
- Conditional bid three at Partington for a price of 1.1823

If the clearing price at Avonmouth is 1.4029 or lower then the user will be allocated capacity at Avonmouth. If the clearing price is higher then the bid will be considered at Dynevor and so on.

Bid number two.

- Primary bid Avonmouth for 50,000,000 units at a price of 1.0617
- Conditional bid one at Dynevor for a price of 0.9352
- Conditional bid two at Glenmavis for a price of 0.9274
- Conditional bid three at Partington for a price of 0.8411

The maximum a user may be allocated is 100,000,000 units of capacity.