



NO SMOKING

LNG PIONEER

Grain LNG Importation Terminal

National Grid Grain LNG

12 December 2005 - Meeting with companies who may be able to use capacity at Grain LNG

Content

- ◆ Brief history of Isle Of Grain
- ◆ Phase I summary
- ◆ Phase II summary
- ◆ Grain LNG's approach to the release of unused capacity

Prior To Conversion

Peak shaving plant:

- Built 1979 to 1981
- NTS connection
- Existing deep access receiving jetty



Storage:

Four 50,000 m³ tanks
Capacity - 84,000 tonnes
Filled over 220-270 days

Six vaporisers:

Capability 780mscf/d
5-days to empty store

Project Description – Phase I

- ◆ **Modification of the four existing LNG storage tanks for rapid filling from LNG tankers and revalidation of the LNG tanks**
- ◆ **Construction of a new, purpose built LNG unloading jetty and associated facilities capable of berthing 70,000m³ - 205,000m³ tankers**
- ◆ **Construction of a cryogenic pipeline (4.4km) from the new jetty to the existing LNG storage tanks**
- ◆ **The installation of new vaporisers and modification of existing equipment (3.3mtpa / 4.4bcm)**
- ◆ **Project cost ~ £130m**
- ◆ **Open season capacity sale process**
 - ◆ **20 year contract agreed with BP/Sonatrach**
- ◆ **Regulatory environment**
 - ◆ **2nd Gas Directive RTPA exemption granted by GEMA on 3 December 2004**

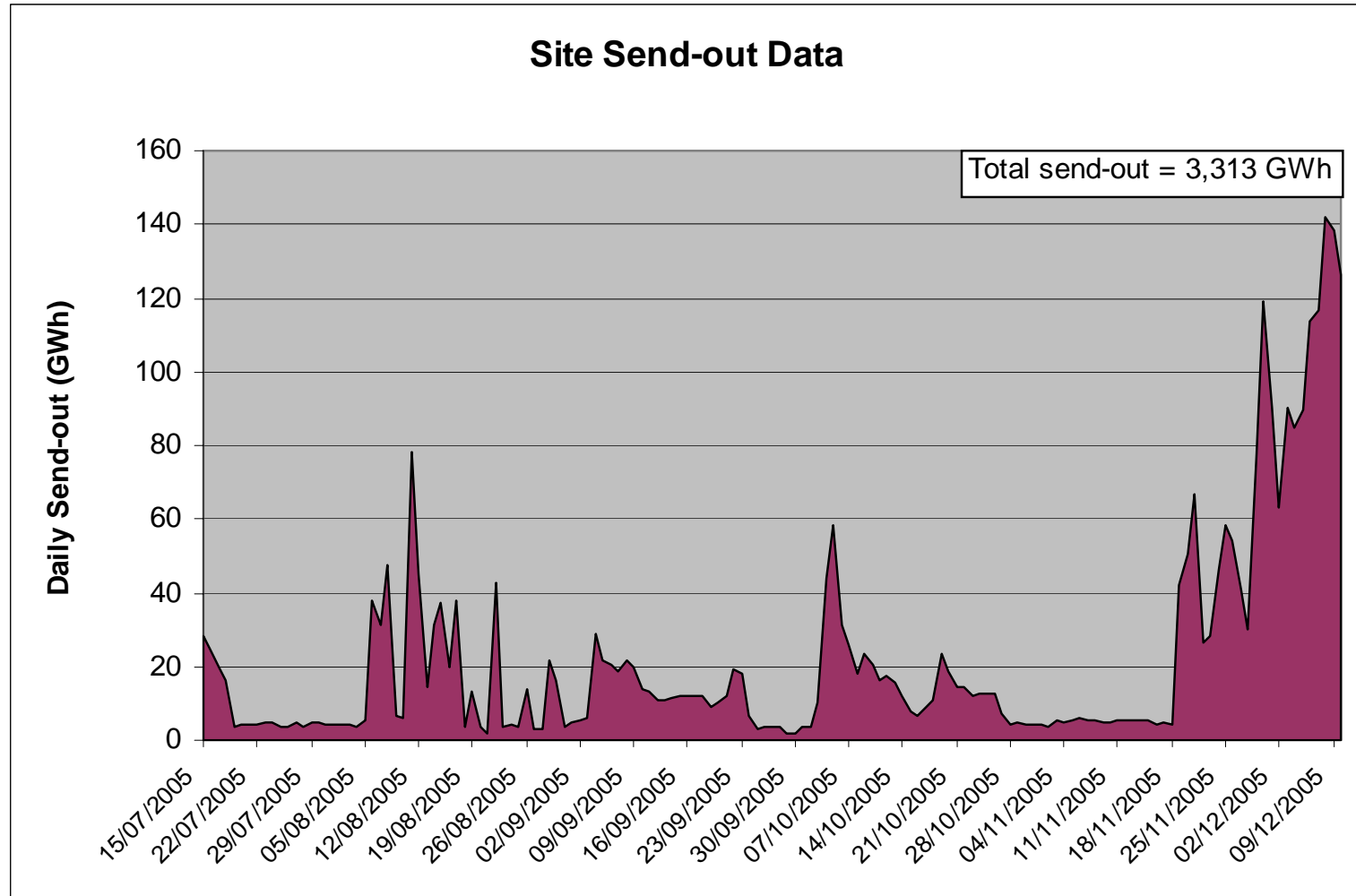
Summary of the conditions of the exemption granted to Grain LNG

- ◆ Material provided by Grain LNG stays materially correct
- ◆ Grain LNG notifies GEMA of capacity at commencement of commercial operation
- ◆ Grain LNG furnishes information reasonably required by GEMA
- ◆ Grain LNG complies with any direction given by GEMA to supply information to relevant gas transporter
- ◆ GEMA may amend exemption (with Grain LNG consent) rather than revoke
- ◆ GEMA may consent to transfer the exemption to another owner

Grain LNG commercial operations commenced on 15 July 2005



Grain LNG site send-out from 15 July to 9 December 2005



Grain LNG phase 2 expansion: project description

- ◆ Open season capacity sale process completed in March 2005 (Centrica, Gaz de France, Sonatrach)
- ◆ Construction contract signed March 2005 (CB&I)
- ◆ Project cost forecast ~ £355m
- ◆ Additional 6.5mtpa throughput (8.6bcm)
- ◆ Full availability for winter 2008/9

Grain LNG's treatment of unused capacity

National Grid Grain LNG

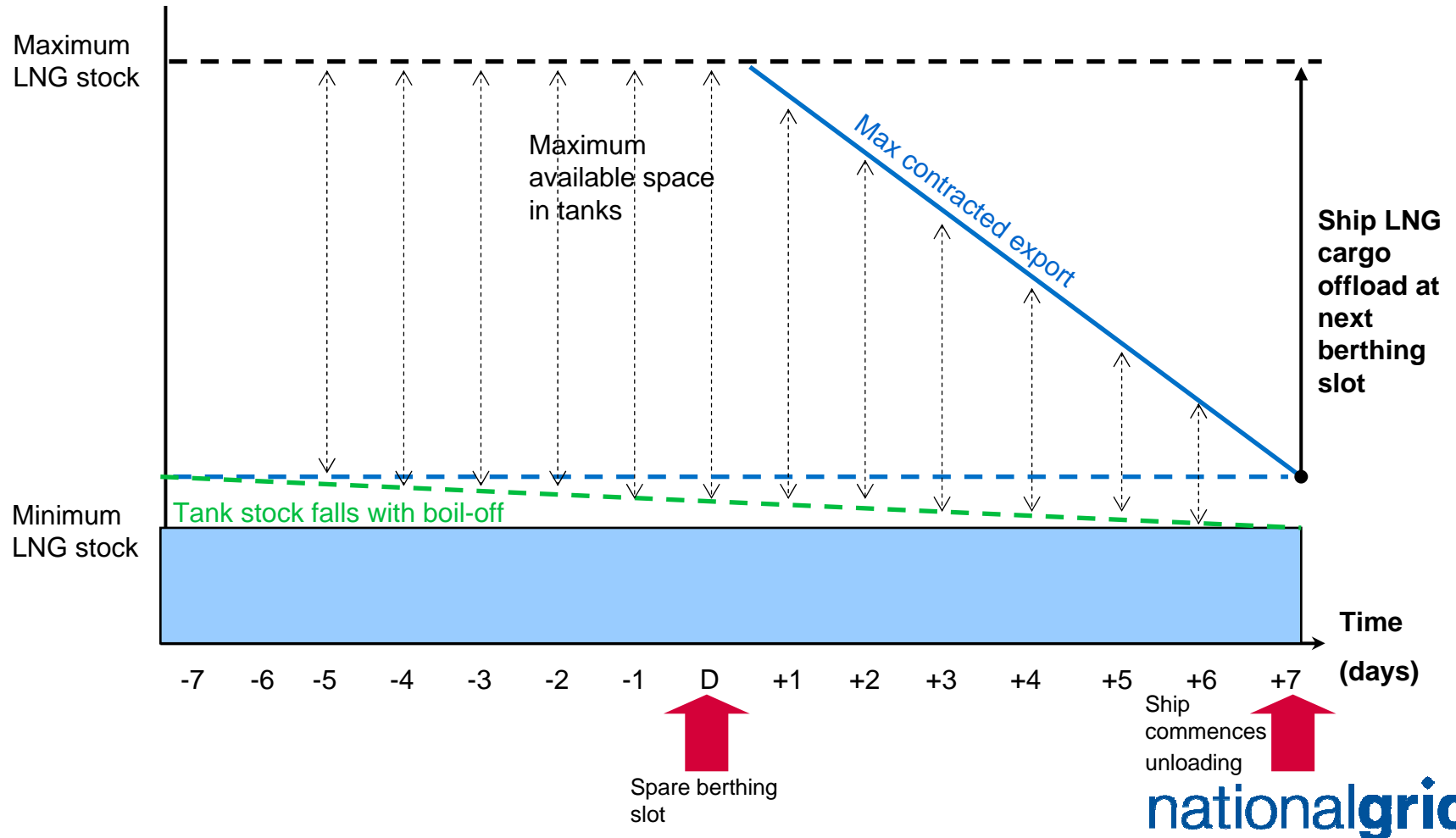
12 December 2005 - Meeting with companies who may be able to use capacity at Grain LNG

Grain LNG calculation of secondary capacity, information to market participants - summary

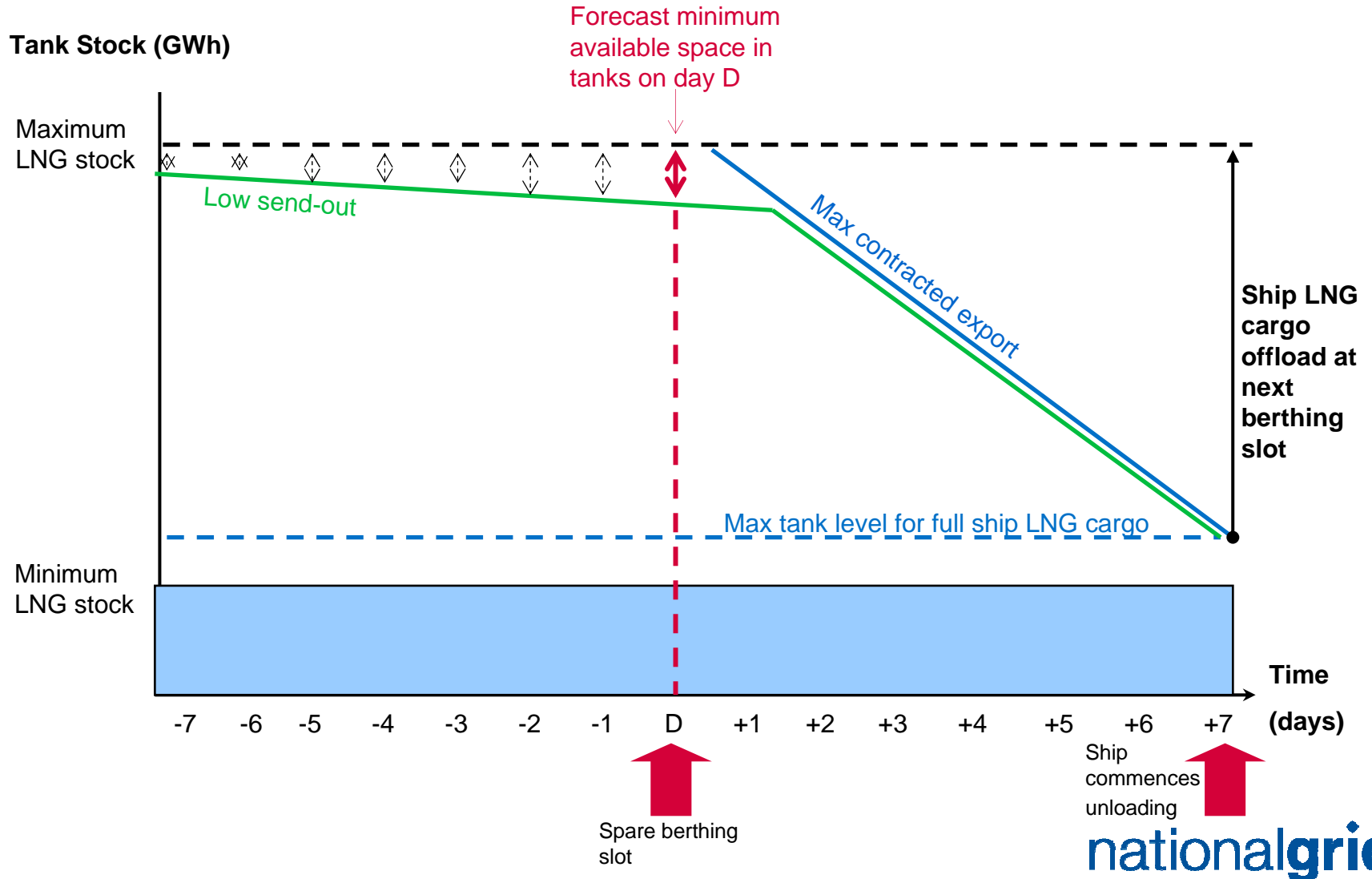
- ◆ Grain LNG's ability to offer unused capacity to the market requires a combination of:
 - ◆ An available berthing slot
 - ◆ Sufficient tank space to unload a cargo
 - ◆ Sufficient send-out capability to ensure that sufficient space can be made available for the next scheduled berthing slot
- ◆ Since commencement of commercial operations in July, Grain LNG has offered capacity to the market on three occasions (one in July and two in November), each time for 70,000 cubic metres of LNG
- ◆ Understanding of how available capacity is calculated and inspection of how this has translated into offers to the market will demonstrate that Grain LNG is meeting the requirements of the RTPA exemption order
- ◆ Grain LNG is committed to considering any suggestions for improvement

How Grain LNG calculates the availability of secondary capacity

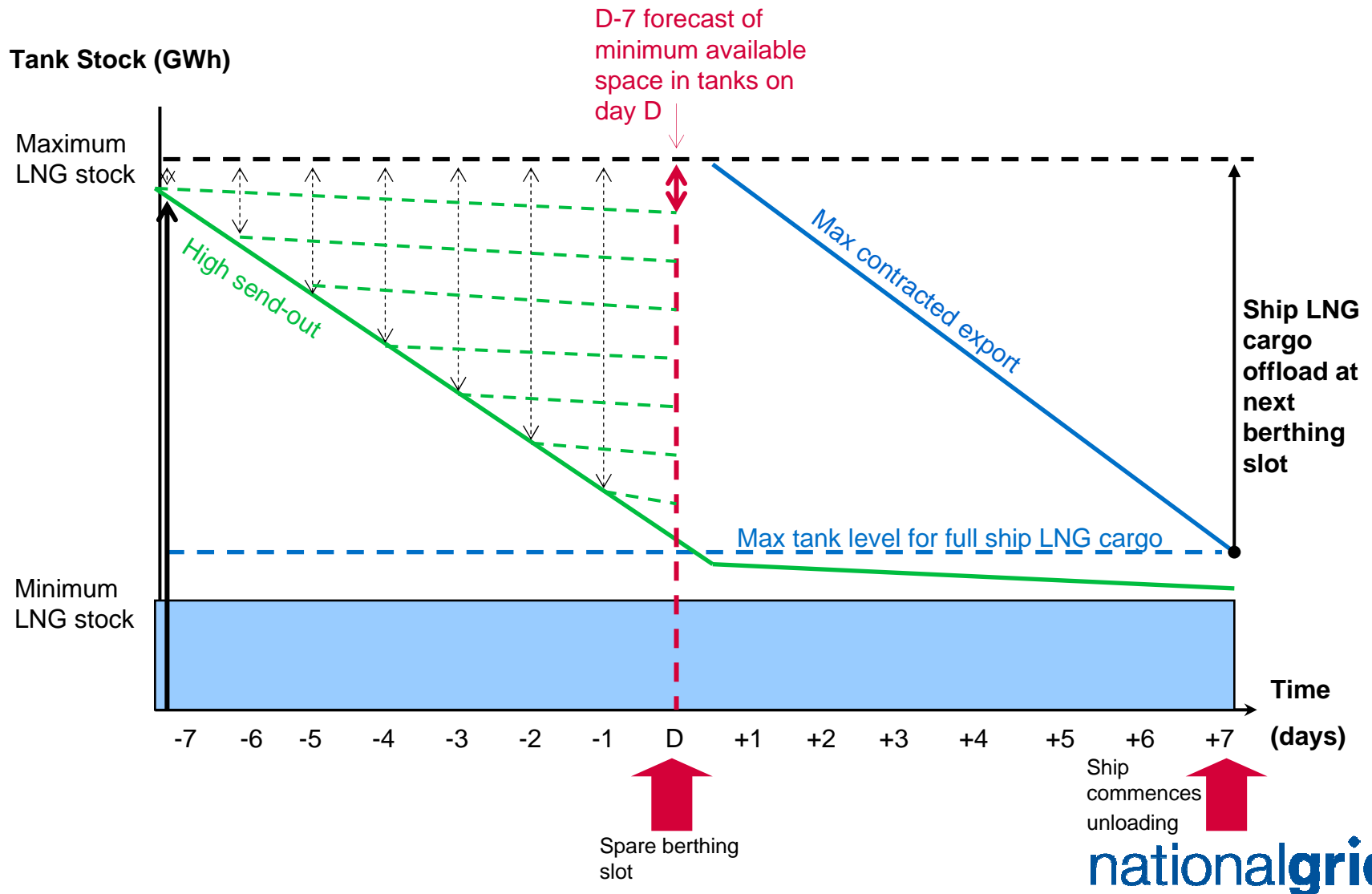
Tank Stock (GWh)



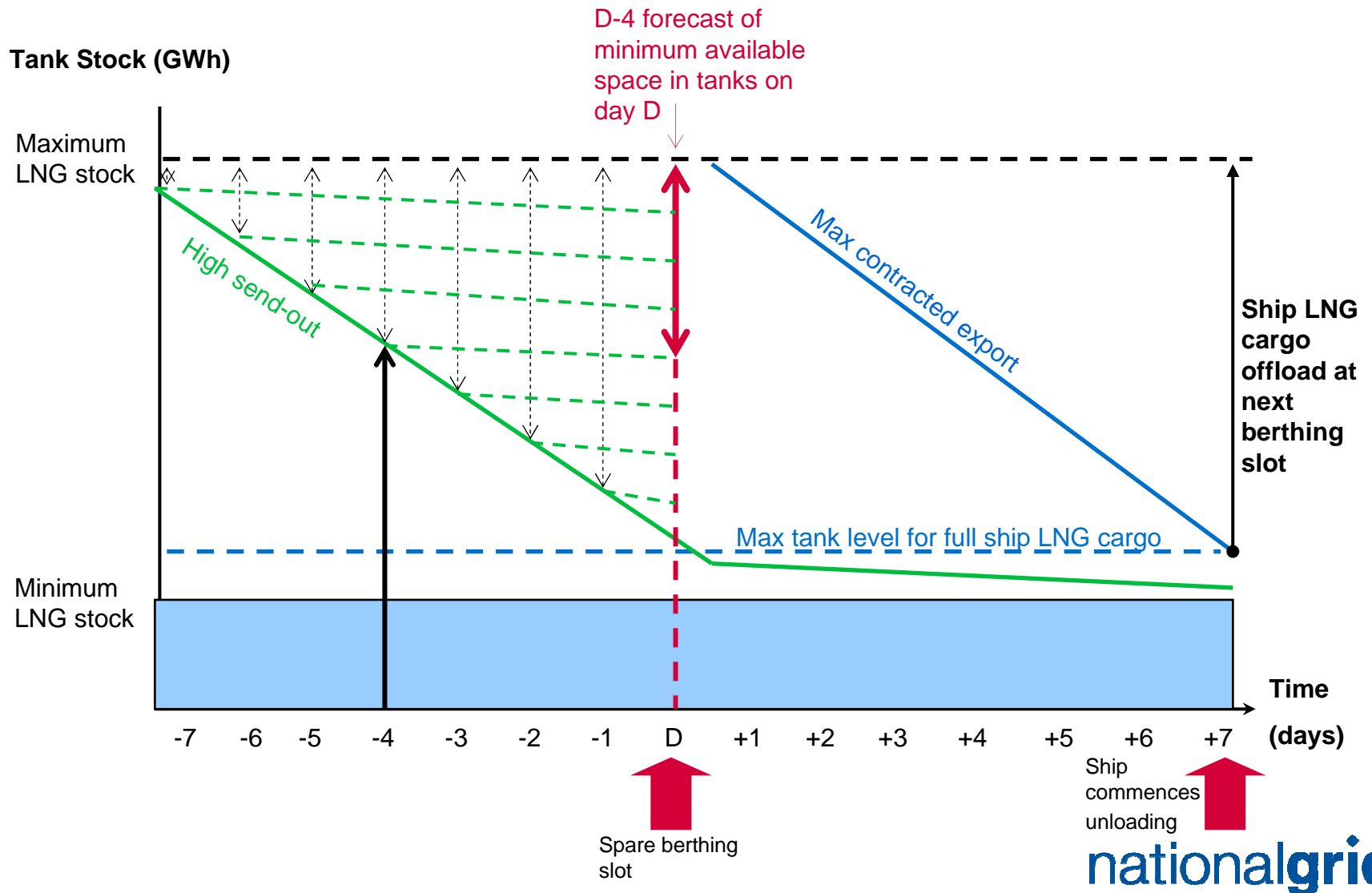
Example 1: High stock and low send-out ahead of spare slot on day D



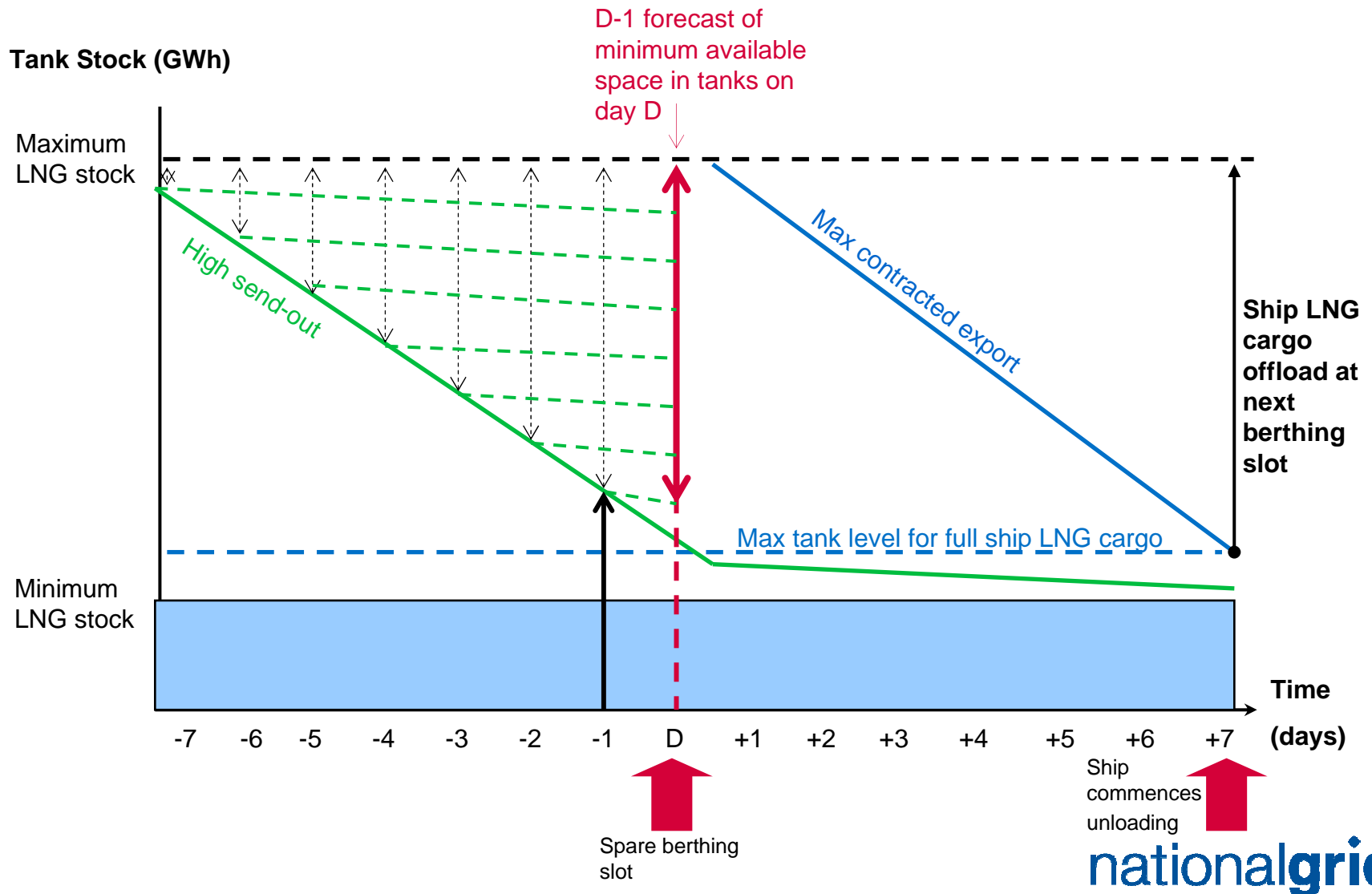
Example 2: High stock and high send-out ahead of spare slot on day D (spare slot known on day D-7)



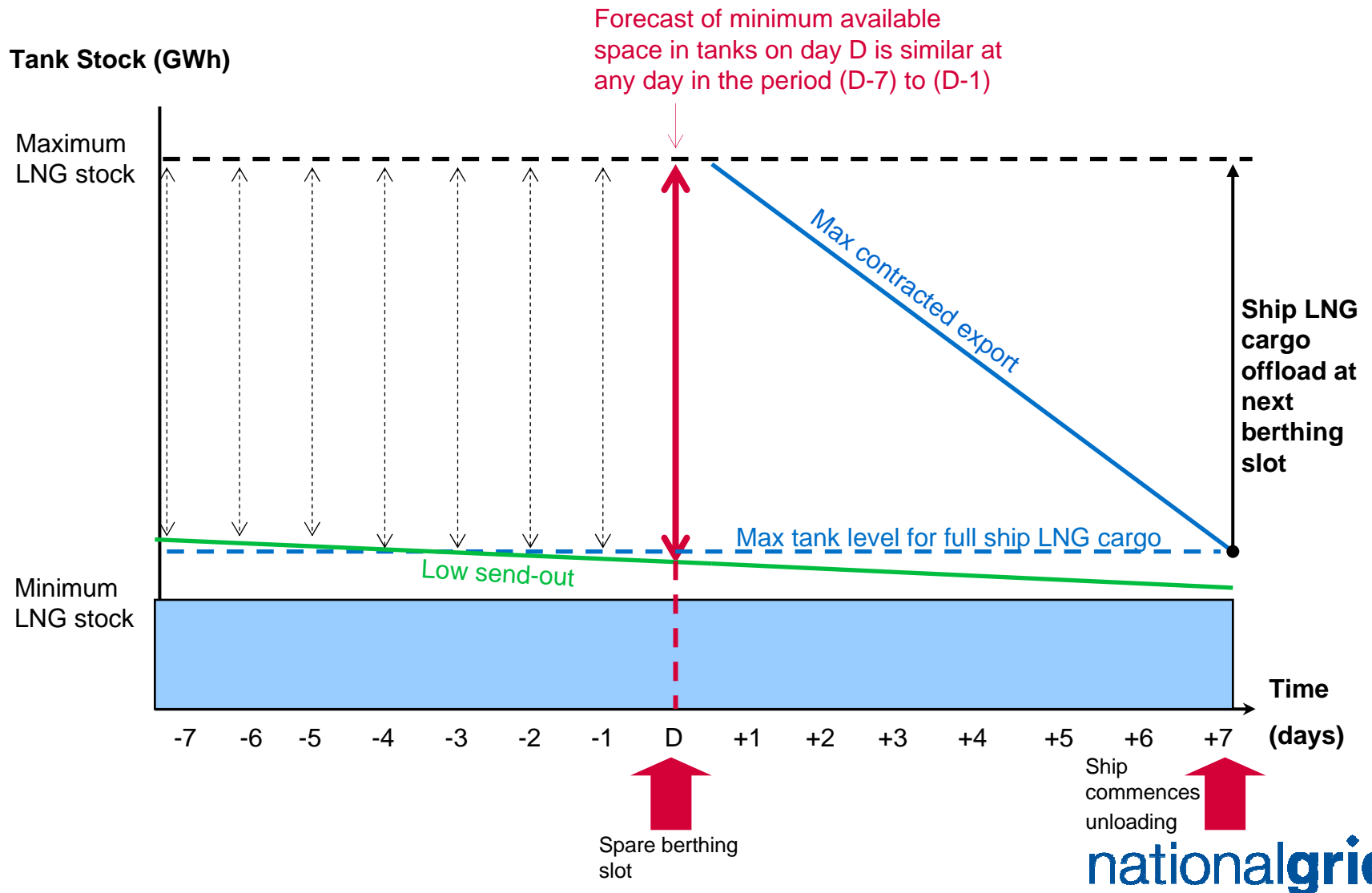
Example 3: High stock and high send-out ahead of spare slot on day D (spare slot known on day D-4)



Example 4: High stock and high send-out ahead of spare slot on day D (spare slot known on day D-1)



Example 5: Low stock and low send-out ahead of spare slot on day D



Impact of notice period (D-N) ahead of spare berthing slot on day D

- ◆ If tank stock levels are very low, then forecast available space for day D is similar from days (D-7) to (D-1)
- ◆ If tank stock levels are high, then more send-out is possible up to day D, at the discretion of the primary capacity holders
- ◆ Forecast minimum tank space available on day D will assume low send out between (D-N) and D
- ◆ Send-out above minimum after (D-N) will add to the minimum tank space available on day D
- ◆ Maximum uncertainty in tank space available on day D is $N^*(\text{maximum contracted send-out} - \text{minimum send-out})$,

How Grain LNG has made secondary capacity available to third parties

- ◆ General Terms and Conditions have been made available (under CA) to interested parties
- ◆ Advice of available capacity has been posted on Grain LNG website
- ◆ Discussions have been held with interested parties on secondary capacity available and how it can be obtained from BP/S or Grain LNG

Berthing Slots Offered Under UIOLI

- ◆ Three slots have been offered on Grain LNG's website:
 - ◆ 19th July 2005 : 7 days notice
 - ◆ 9th November : 7 days notice
 - ◆ 16th November : 2 days notice

Discussion on notice periods for LNG cargoes

National Grid Grain LNG

12 December 2005 - Meeting with companies who may be able to use capacity at Grain LNG

Third party arrangements in other countries

National Grid Grain LNG

12 December 2005 - Meeting with companies who may be able to use capacity at Grain LNG

Discussion on transparency

National Grid Grain LNG

12 December 2005 - Meeting with companies who may be able to use capacity at Grain LNG

Next steps

National Grid Grain LNG

12 December 2005 - Meeting with companies who may be able to use capacity at Grain LNG