

# The Future of PGBTs

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CBSG

## **PGBT Definition**

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*Pre Gate Balancing Mechanism Unit Transaction (PGBT) - an energy trade undertaken on a specific BMU which takes into account data already submitted for that BMU in accordance with Grid Code BC1.4.2 and revisions to this data that the generator may specify when making an offer. The minute-by-minute profile of a PGBT is similar to that of a Bid-Offer Acceptance, but its position in time is outside the Balancing Mechanism window and is only limited in duration by not extending beyond day ahead.*

## Background

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- Introduced in 2002 as part of project to move Gate Closure from 3.5 hours to 1 hour
- Conceived after only a few months of NETA operation
- Developed to facilitate National Grid (NG) to “Buy” on units with technical parameters that precluded them from responding to a BOA instruction within the BM
- A trading solution operated by the Control Room close to gate closure (generally 4 – 6 hours out)
- Schedule 7 of GTMA provides the framework for PGBT trades and has been agreed with all applicable market participants

## Process (1 of 2)

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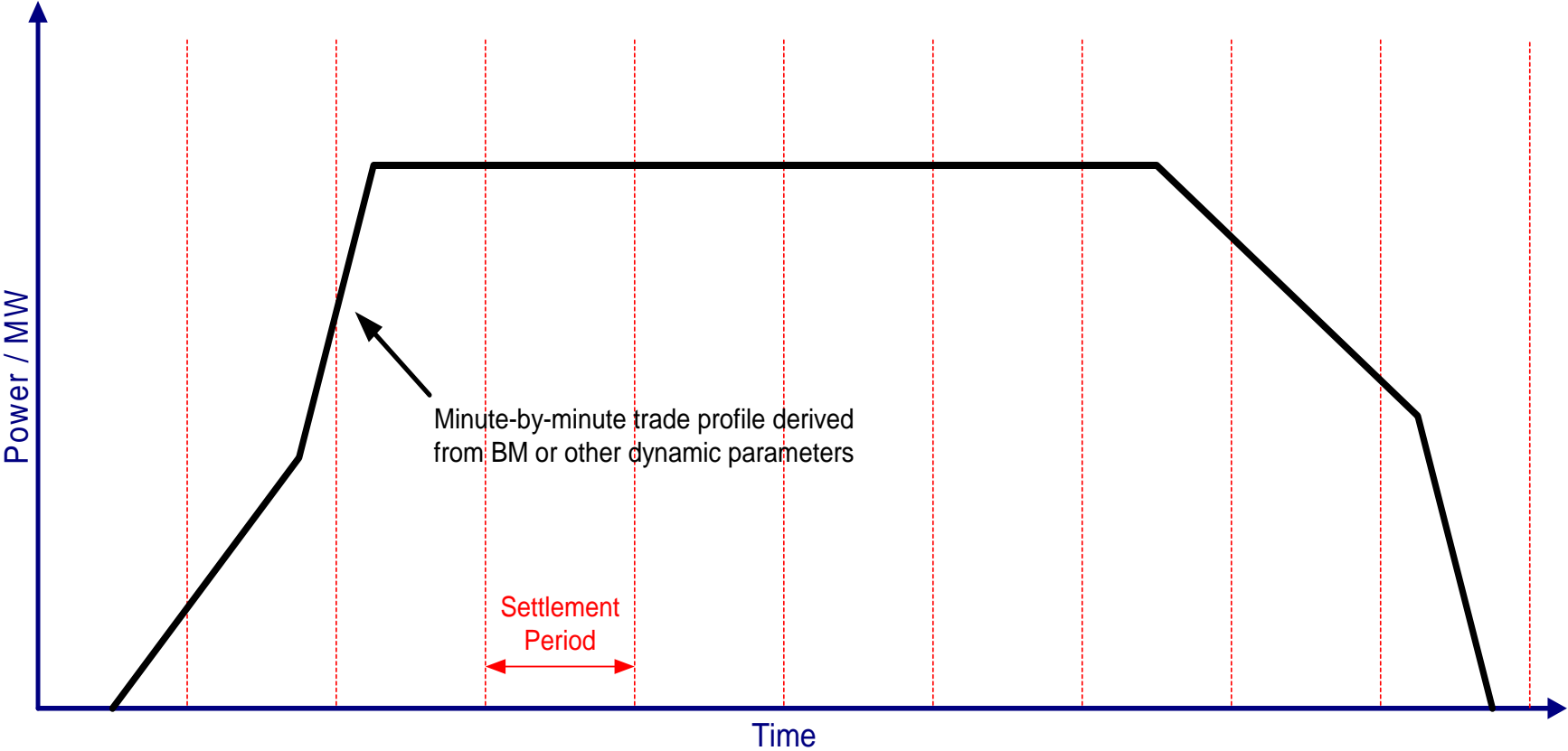
- NG Control Room determine requirement to either “Buy” energy (sync a unit) or “Sell” energy (desynch a unit) on to or off the network
- Requirement can apply to a specific physical BM Unit, a group of physical BM Units or all physical BM Units
- The Trading Point of each BM Unit that meets the requirement is requested to make a PGBT offer comprising of a minute-by-minute MW profile and a price in £/MWh
- Telephone offers are recorded within the BM systems and Control Room select which, if any, will be accepted. There is no negotiation

## Process (2 of 2)

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- If an offer is accepted NG notifies the traded energy volumes (ECVNs) via its trade management system to the ECVAA (Elexon / Logica) for settlement with the counterparty
- The generator is required to submit new PNs to comply with the minute by minute PGBT profile
- Details of PGBTs are posted on BMRS System Warnings page and on SONAR bulletin board
- Post-event, the NG Settlements Team publish PGBT offer data

# Typical Profile



## Number of PGBTs agreed

- The number of PGBTs agreed have reduced in recent years and have mainly been for Sell actions

	Buy	Sell	Total
2005	31	13	44
2006	13	27	40
2007	31	14	45
2008	9	13	22
2009	1	46	47
2010 (as of 14/09/10)	0	4	4

# Alternative Actions

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- BOAs (effectively Sell only)
- BM Start-up + BOAs (Buy only)
  - Key focus of BM Start-up is to allow unit to be accessed in BM
- Schedule 7a trades (Buy and Sell)



## Schedule 7a Trades

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- Undertaken in period between week ahead and within day
- Undertaken by NG traders rather than NG Control Room
- Ramps not modelled – trade consists of multiple settlement period blocks of energy
- Bilaterally negotiated price
- Higher volume of trades
- Reporting differences  
(volumes shown in BSAD data but does not detail generator ID)
- Facilitates trades over French Interconnector

## Current Status

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- Low volumes of PGBTs currently, no Buy actions since January 2009
- Sell action volumes could be conducted via BOAs and Schedule 7a trades
- Seen as complex (ramping and minute by minute profiling) and potentially error prone

## Review of requirement for PGBTs

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- Current BM systems contain extensive functionality to support PGBTs
- NG are reviewing all aspects of system functionality within the scope of the BM Replacement project
- PGBTs would require extensive bespoke development to support them in vendor package
- NG view is that IS development for PGBTs is not economic and efficient given low utilisation
- Propose replacing PGBTs with BOAs, BM Start-up and 7a trades
- Seeking industry views on future of PGBTs

# Options

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1. Retain functionality within new BM systems, at significant cost and risk to project timescales
2. Disable functionality in 2013\* when new system is implemented and rely on alternative actions
3. Disable functionality in 2011\* and rely on alternative actions
4. Develop additional alternative solution to PGBTs

\* Assumes that relevant BM Start Up Agreements and Schedule 7a's are in place