

# Balancing Services Development Update

Sarah Habib

# Agenda slide

1.0 Standing Reserve - Tender 2004/05

2.0 Contract Developments for Winter 2003/04

2.1 Maximum Generation Service

2.2 Demand Turndown

2.3 Consideration of additional Winter 03/04 reserve procurement

2.4 Other Considerations

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## **1.0 Standing Reserve - Tender 2004/05**

### 2.0 Contract Developments for Winter 2003/04

2.1 Maximum Generation Service

2.2 Demand Turndown

2.3 Consideration additional Winter 03/04 reserve procurement

2.4 Other Considerations

# 1.0 Standing Reserve Service

- **What is it?**

- Manually instructed delivery of active power greater than 3 MW**

- Fully available within 20 minutes**

- Sustainable for at least 2 hours**

- Recovery time of 20 hours or less**

- Provided at least 3 times a week**

- Service windows across 5 seasons**

- **Why do we need it?**

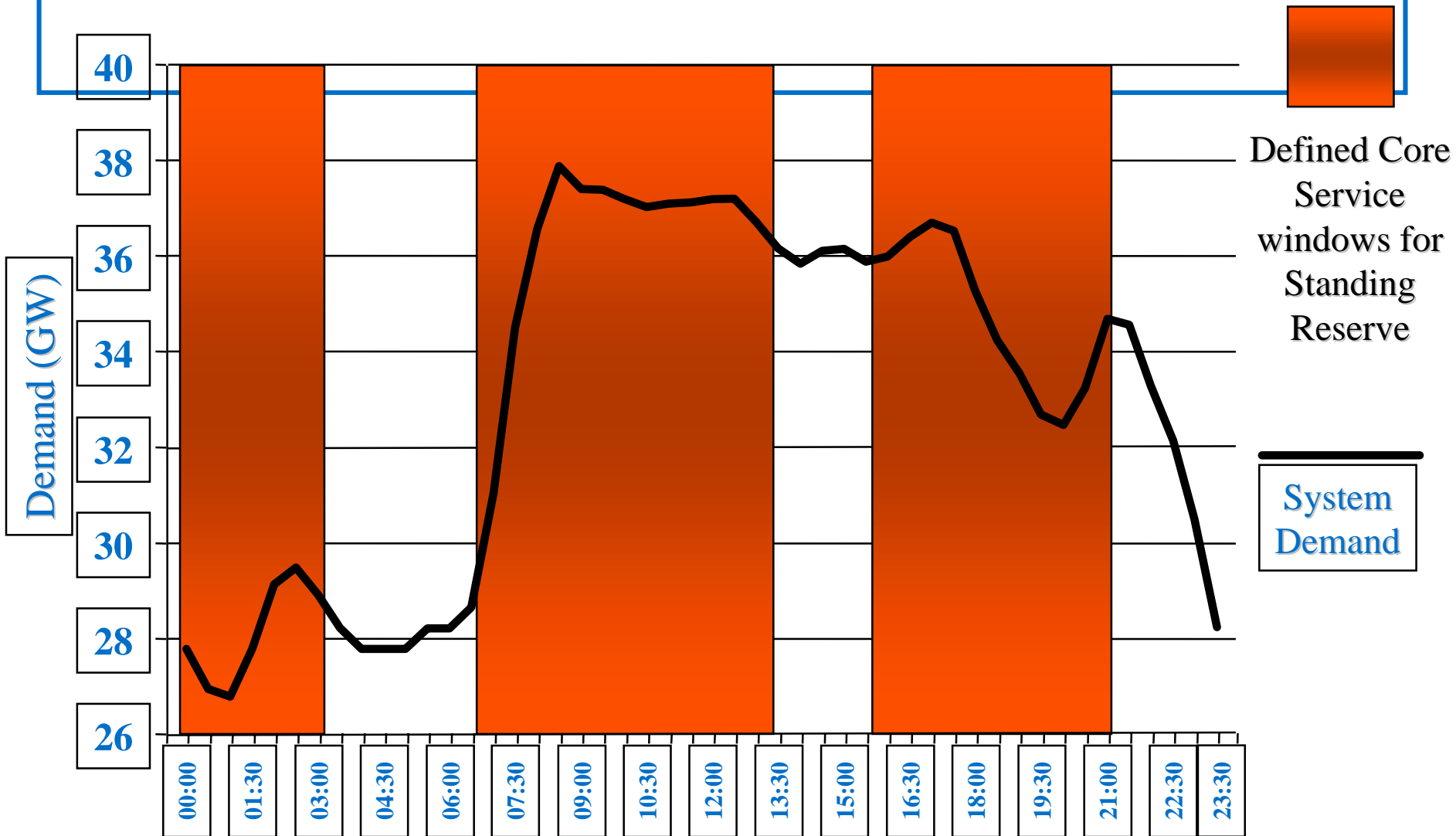
- During service windows to cover;**

- Short term plant losses;**

- Generation shortfall; and/or**

- Demand Forecast error.**

# Standing Reserve Requirement



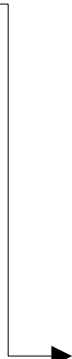
National Grid Transco

# Standing Reserve Service

- Who can provide it?
  - **Generation**
    - BM Units
    - Non-BM Units
      - Single Site/Load
      - Aggregated Sites/Loads
  - **Demand Reduction**
    - e.g. pumping loads at water companies
  - **Contract directly or via agents/aggregators**

# Contract and Agreement Relationships

Standing Reserve  
Agreement



Standing Reserve  
Standard Contract Terms



Standing Reserve Despatch  
Procedure for non-BM Providers

# Procurement Mechanism & Information

- Service period 1st April 2004 to 1st April 2005
- Invitation To Tender (ITT) information published comprising:
  - **Guidance notes**
  - **Standing Reserve Agreement (BM Unit/non-BM agreements)**
  - **Standing Reserve Standard Contract Terms (contains BM, Non BM and general provisions)**
  - **Procedure for using SRD (Standing Reserve Despatch)**
  - **Tender Sheets**
- Market Report for previous Market Tenders

# Amendments to Standard Contract Terms for 2004/2005

- Why?
  - Feedback from Providers and Control staff
  - Greater experience of operation under NETA
- Changes
  - Review of events of default and consequences
  - Provisions for non-BM service
  - Provisions for testing
  - Clarity on process once utilisation limits are reached
  - Housekeeping

# Standing Reserve Tender Timetable 2004/2005

Invitation To Tender published on web site



Tenders to be submitted by **18th November 2003** (Market Day, 6 weeks)



Tender assessment completed by **23rd January 2004**



SRA's to be signed by **Friday 5th March 2004**



Contracts and service commences **1st April 2004**



Market Report produced on tender round **July 2004**

# Further Information

- National Grid Industry Information Web site:

[www.nationalgridinfo.co.uk/balancing/mn\\_standing.html](http://www.nationalgridinfo.co.uk/balancing/mn_standing.html)

- Contact:

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**2.1 Maximum Generation Service**

2.2 Demand Turndown

2.3 Consideration additional Winter 03/04 reserve procurement

2.4 Other Considerations

## 2.1 Maximum Generation Service (MGS)

- Why?

- Raised at a previous Operational Forum
- Non- Firm volume identified that is not accessible via any other existing means
- MGS provides a mechanism to access this capability which may be available above the normal operating range of a generator for winter 2003/04

# Maximum Generation Service (MGS)

## •Who will provide it and how?

•Offered by Generators able to provide short-term generation output above their normal operating range by (for example):

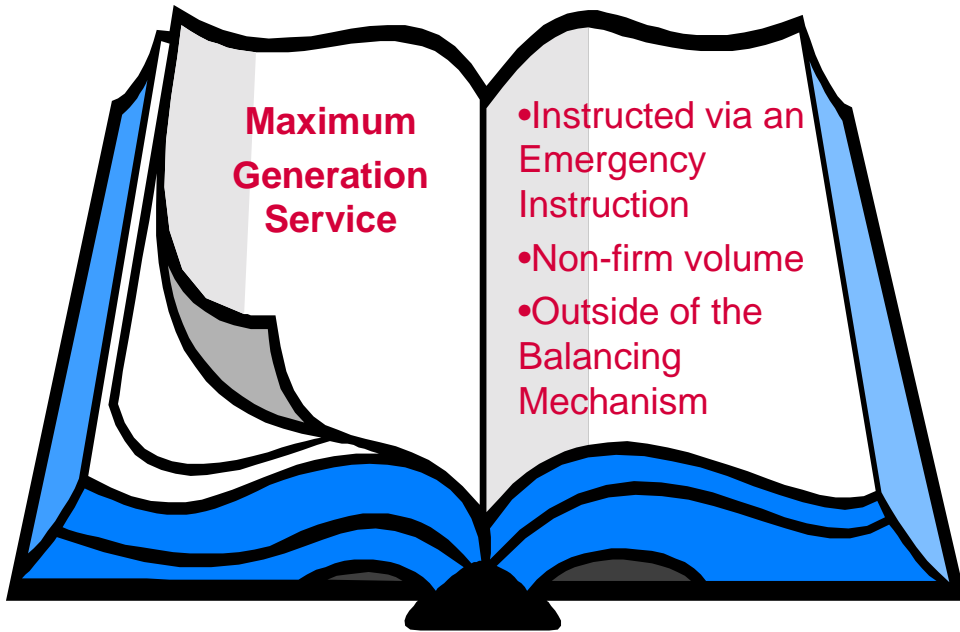
- switching out feed heaters
- duct firing
- oil over burn
- GT NOx control ....

## •When will it be used?

•To be used at times of system stress in order to maintain security of supply

# MGS - Codes and Contracts

## Grid Code - Emergency Instruction



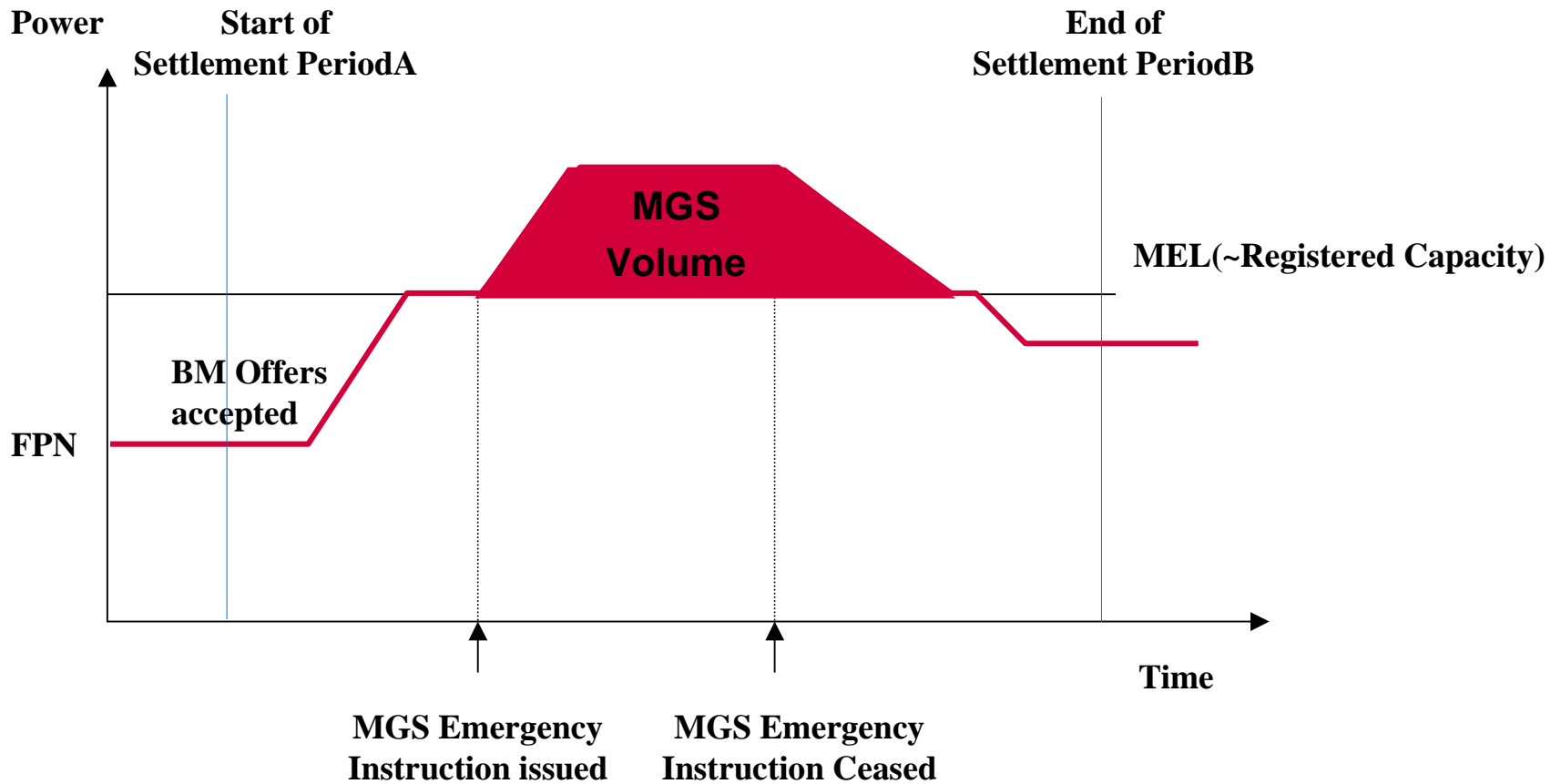
## Ancillary Service Contract



# MGS - Volume

- Maximum Generation Service will be the volume above a BMU's Maximum Export Limit (MEL), that is delivered within a balancing period in which a Maximum Generation 'start' or 'cease' instruction is issued, and in any period falling between the issue of a Maximum Generation 'start' and 'cease instruction'
- Maximum Export Limit will be linked to the Registered Capacity or equivalent of the BM Unit
- Delivery of the service will be on a Reasonable Endeavours basis
- The volume delivered will be removed from the imbalance calculation

# MGS - Volume Example



# MGS - Volume for Payment & Removal from Imbalance

- Utilisation payment, £/MWh basis
- Maximum Generation Service volume for BMU during a settlement period will be the half hourly metered volume minus the integrated capped committed level (PN + BOA) for that period.
- Payment and imbalance removal based on delivery, not expected volume.

# MGS - Changes to Industry Documents

- **Balancing Principles Statement**

**When the service will be used** - to maintain system security in the event insufficient relevant bid-offers are available and, or in the event of breakdowns and other operating problems

- **Procurement Guidelines**

**Definition of service**- mechanism to access unavailable capability outside of the Generator's normal operating range.

- **Grid Code**

**To allow for Emergency Instructions outside the Balancing Mechanism due to non firm nature of the service.**

- **ABSVD Statement**

**Removal from imbalance** - based on actual not expected volumes

- **BSAD Methodology Statement**

**Incorporation into imbalance prices** (categorised as Energy)

# MGS - Development time scales

## Process

## Dates

Receipt of consultation  
Responses

Grid Code – 6<sup>th</sup> Oct  
BPS/PGs/ABSVD/  
BSAD – 10<sup>th</sup> Oct

Consultations to Authority

17<sup>th</sup> October

Contracts to be sent out

Mid October

Contracts in place

Late October -  
start of November

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## 2.2 Demand Turndown

- Why?

- Continually looking to increase the market for Demand Side Services available for Balancing Services
- Identified as a potential new Demand Side opportunity which could provide an extra source for Contingency Reserve

# Demand Turndown

- When will it be used?

For Contingency reserve and margin levels  
(alternative to Generator Warming and Margin)

- Who will provide it?

Aggregated demand side (including small generators)  
Large Demand Users

# Service Requirements

- Reliable demand reduction capability
- Measurable Service
- Single point for despatch
- Single contracting counterparty
- Verification that volume is not part of an existing balancing service or any other demand side service (eg Triad avoidance)

# Service Criteria

- Windows
  - 09:00 to 11:00
  - 16:30 to 18:30
- Minimum capability of 100MW
- Sustainable for 2 hours
- Capability assured day-ahead
- Shorter notice periods more valuable
- Identified Demand sites

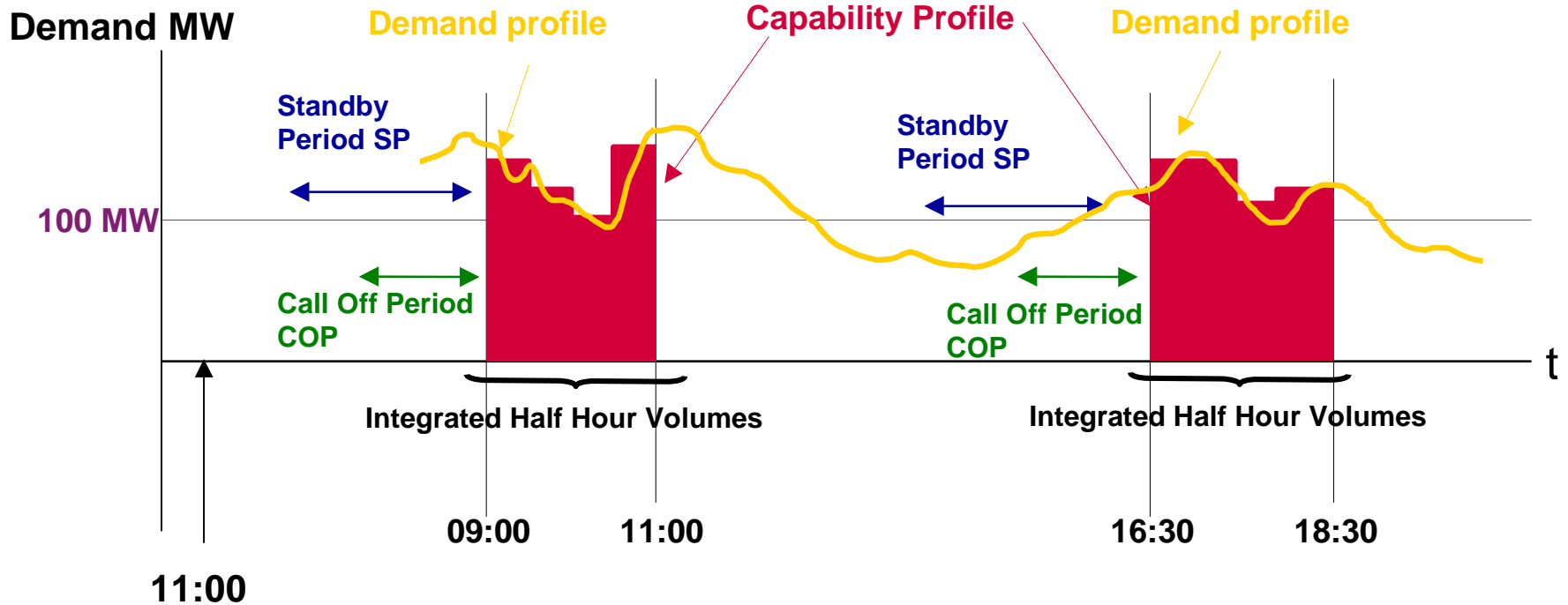
# Service Value

- MW capability in windows
- Length of notice periods
- Simplicity of call off and assessment
- Half hourly average capability

# Proposed Structure

- Day ahead declaration of capability
- Standby period (SP)
  - time prior to first period of delivery for 'arming'
  - fixed payment
- Call Off period (COP)
  - time prior to first period of delivery for firm confirmation
  - payment on delivered MW
- Daily profile of actual demand
- Aggregated metered data

# Demand Turndown - Service Profile



Day-ahead  
notification of profile

# Next Steps

- Proposals for service provision by 17th October

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- Dependant upon responses NGT will hold a workshop - October/November
- Progress trial arrangements - November
- Report back to industry next summer

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## 2.3 Short Term Reserve Requirement

### Our current thinking...

- Pre contracting for additional firm reserve over and above current levels
- For expediency and simplicity, similar form to current Standing Reserve Service & Tender process
- Key change, increase in delivery time from 20 minutes to 60 minutes in order to provide greater liquidity in the market
- Additional Reserve for October - March
- Open to BM and Non BM providers

# Indicative Time Scales

- subject to timing of Winter Operations Report

Invitation To Tender sent out **mid October**



Tenders to be submitted



Tender assessment completed



Contracts and service commences **mid November**

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## 2.4 Other Considerations

- CCGT Warming Provisions
- Multishaft CCGT availability

# Summary

- **Standing Reserve**
  - ITT pack available on website
  - Market day 7th November
- **Maximum Generation Service**
  - Consultation to Authority 17th October
  - Subject to Authority Approval contracts in place Oct/Nov
- **Demand Turndown**
  - Service Definition being discussed with potential providers plus trial arrangements
  - Report back to industry next summer
- **Short Term Reserve Requirement**
  - If proceeding information will be made available on the website