

# Look ahead to Winter 2016/17 & Winter Case Study - Long Notice Supplemental Balancing Reserve (SBR)

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# Content

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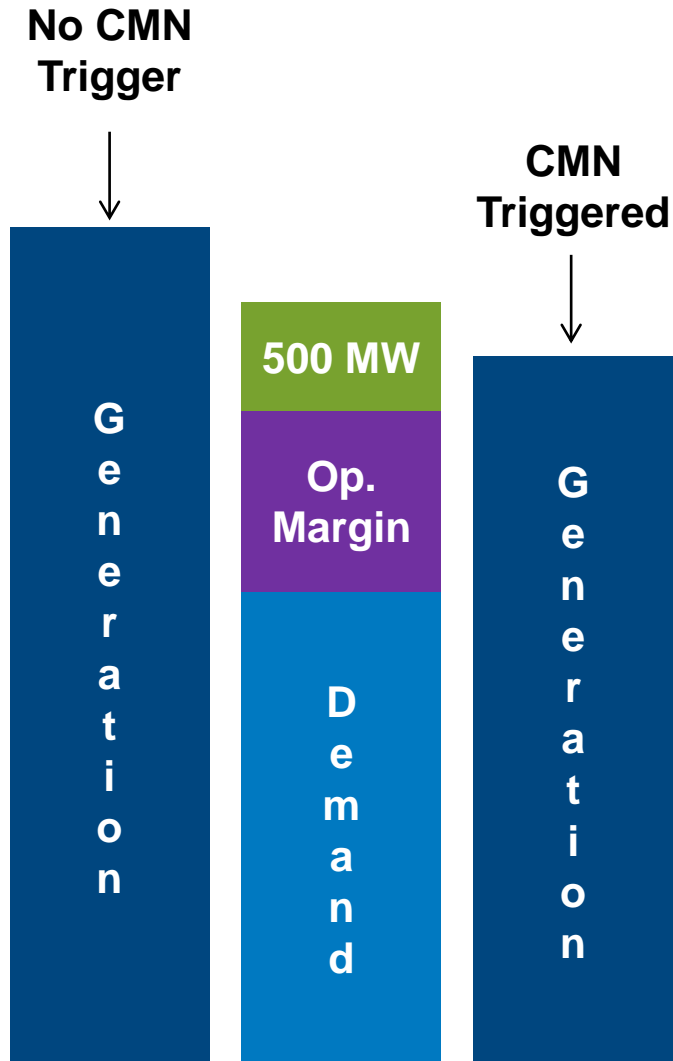
- Capacity Market Notices (CMNs) and how they are calculated
- What is a System Stress Event?
- CMNs / System Stress Event communications
- CMN scenarios
- What else is new for 2016/17 Winter?
- Example timeline and SBR messaging
- Key messages and Next steps

# Capacity market notices

- Notice to market **4 hours ahead** of real time (System Margin calc)
- Given where **expectation of a Stress Event** is higher than a threshold
- Settlement tool; **not an operational dispatch signal.**
- **Observe BMRS** for traditional warnings and Demand Control Events

CMN	vs	NISM
Automated	Trigger	Manual
500MW above Margin requirement	Threshold	500-700MW below Margin requirement
Not included	Constraints	Included
4 hours out (for initial alert)	Lead time	Flexible

# How are CMNs calculated?



## Generation

- Conventional Generation MELs
- Wind Forecast
- NBM STOR

## Demand

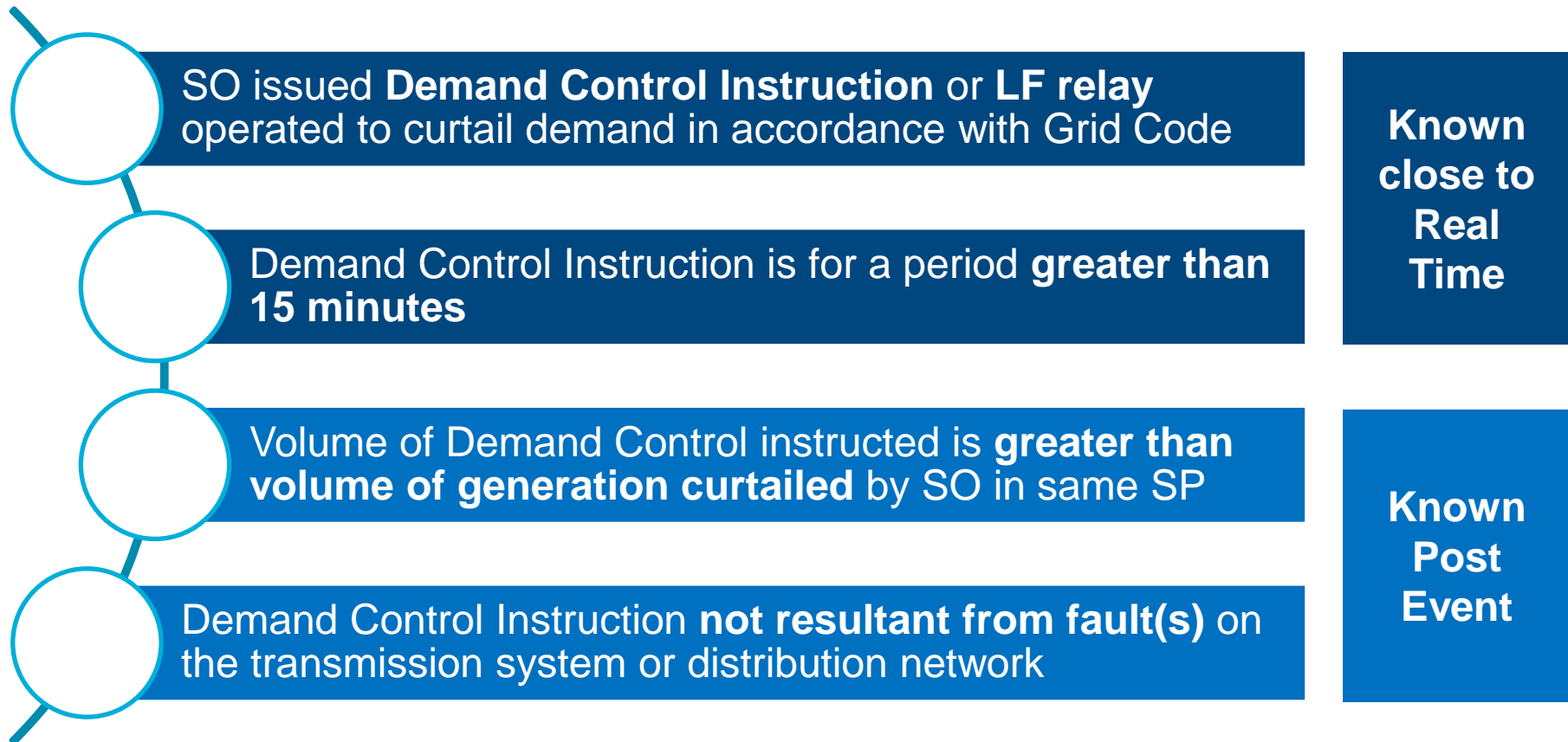
- National Demand Forecast
- Station Load
- Interconnector Flow (+ or -)

## Operating Margin

- Regulating Reserve
- Reserve for Response
- Contingency Reserve
- STOR Requirement

## What is a system stress event?

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# Stress event communications

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## Discrete Website

- New website in development
- Subscribable alerts (e-mail and SMS)
- Alerts will direct recipient to webpage for content

## CMNs












- Automated alert communicated 4 hours out to include:-
  - Commencement time
  - Circumstances triggering notice
  - Demand
  - Aggregate BMU capacity
- Can be cancelled closer to real time

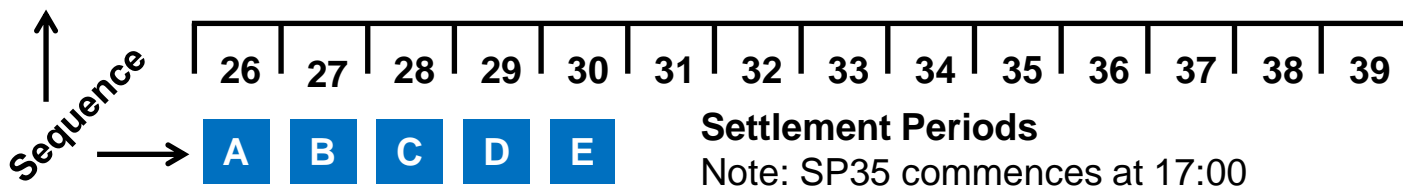
## System Stress Events

- Manual alert following post Demand Control analysis
- Times covered by any System Stress Event

# CMN scenarios

**Note:** Where National Grid is managing a margin challenge within 4 hours, and a CMN is not active, all communications will be managed through traditional routes via the System Warnings page on BM Reports

- E**
  - No margin issue during SP39 @ 4 hrs out
  - No analysis for earlier SPs required as no active CMN in place →  **No CMN** required
  
- D**
  - No margin issue for any SP in next 4 hrs →     **CMN cancelled and communicated** to market
  
- C**
  - Margin issue for SP 35 relaxed @ 3 hrs out
  - Margin issue for SP 36 persists @ 3.5 hrs out →    **Original CMN remains** in place from 17.00
    - No margin issue for SP37 @ 4 hrs out
  
- B**
  - Margin issue for SP 35 persists @ 3.5 hrs out →   **Original CMN remains** in place from 17.00
    - Margin issue for SP 36 @ 4 hrs out
  
- A**
  - Margin issue for SP 35 @ 4hrs out →  **CMN active from 17.00 and communicated** to market on discrete website



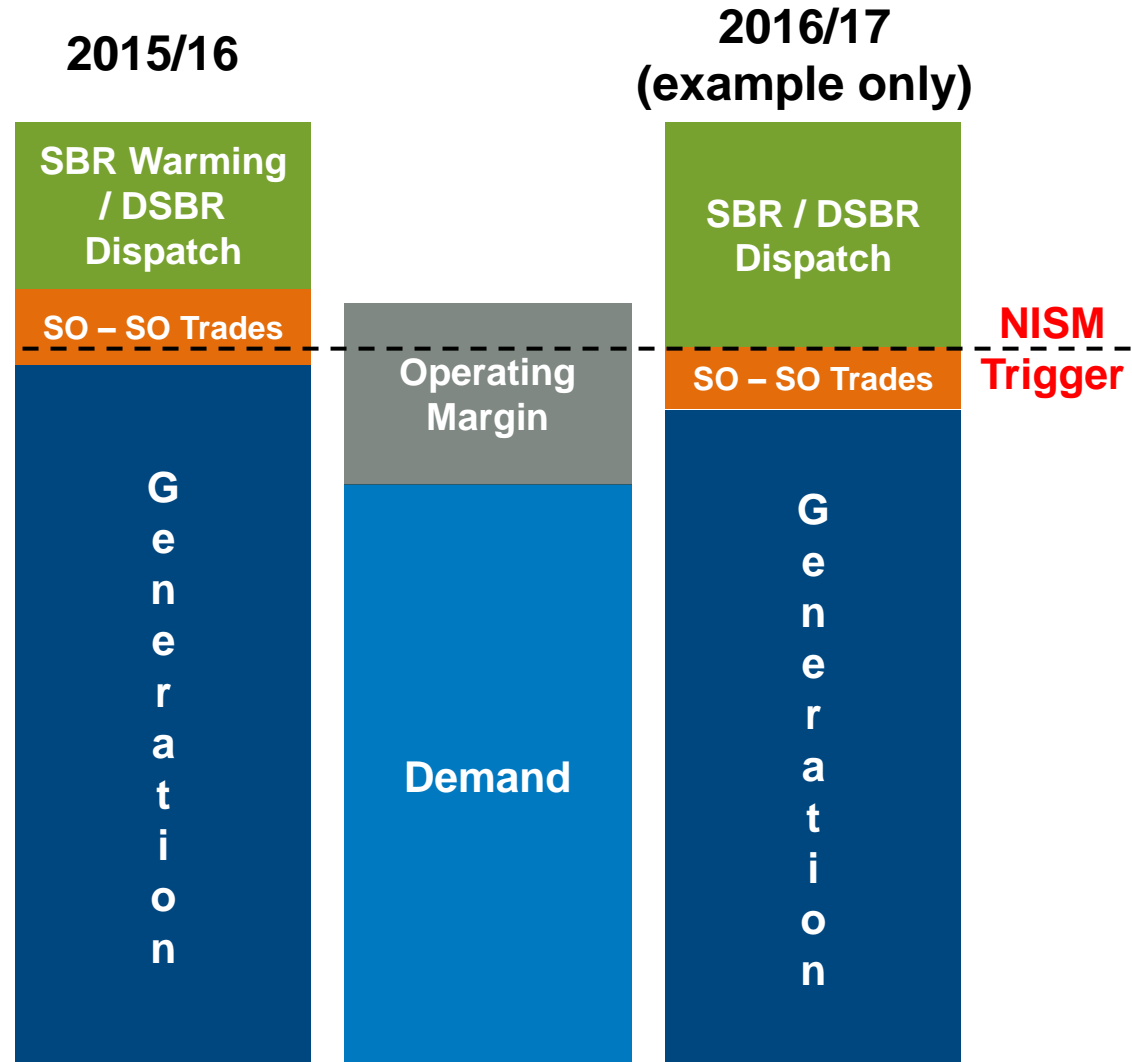
## What else is new for 2016/17 winter?

### Background

- Lower System Margins
- Higher volumes of CBR
- Some longer notice SBR warming
- Grid Code consultation on NISM name change

### Consequences

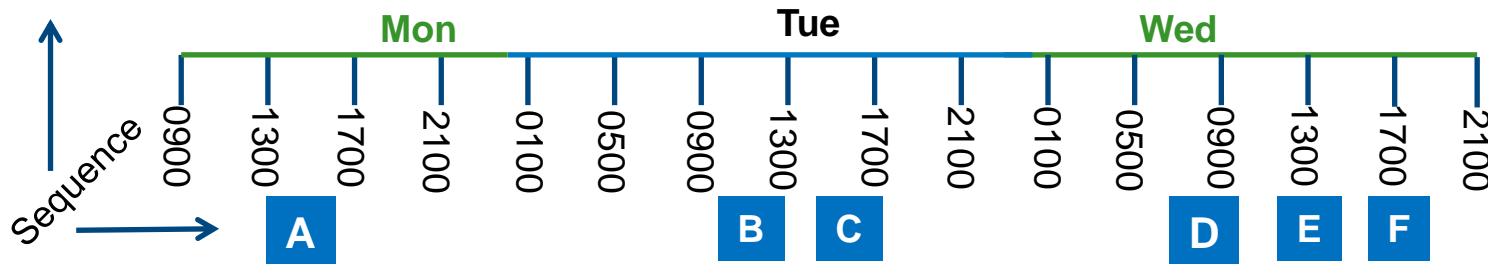
- System Warning to be issued prior to dispatching CBR
- Proposing to modify notices to System Warnings Page (BMRS)
  - SBR Warming Notice
  - SBR/DSBR Dispatch Notices





# Contingency balancing reserve example scenario

- F** Demand peak met by combination of BM plant + DSBR + SBR → ● Plant runs to meet peak
- E** DSBR plant despatch commences → ● **DSBR Despatch Notice** issued on BMRS/SONAR
- D** SBR plant despatch commences for slow run up rate plant → ● **NISM** updated on BMRS/fax, **SBR Despatch Notice** issued on BMRS/SONAR
- C** Margins remain tight for Wed peak. NISM calculation performed - shows Margin requires CBR so NISM issued → ● **NISM** issued on BMRS/fax
- B** Margins remain tight for Wed peak. 2<sup>nd</sup> Tranche of long notice SBR plant warmed → ● Updated **SBR Warming Notice** issued on BMRS/SONAR
- A** Analysis shows Wed peak margins tight. Threshold met for long notice SBR plant to be warmed. 1<sup>st</sup> Tranche of long notice SBR plant warmed → ● **SBR Warming Notice** issued on BMRS/SONAR



## CBR / Grid code communications

### CBR Messages – BMRS & SONAR

#### Message

- SBR Warming Notice
- SBR Dispatch Notice
- DSBR Dispatch Notice

#### Information given

Time Applicable, BM shortfall  
Time period required for  
Time despatched for

### Grid Code Warnings – BMRS & fax

#### Message

- NISM
- HRDR
- DCI

#### Information given

Time Applicable, MEL shortfall  
Time Applicable, MEL shortfall, Level of demand  
reduction, DNOs affected  
DNOs affected

## Key messages

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- A number of areas of change for 2016/17 Winter
- CMN not an operational tool, continue to observe BMRS
- 2016/17 is effectively a pilot year for the CM
- Long notice SBR included to manage tighter margins
- New CBR messages on BMRS / SONAR
- System Warning issued prior to CBR dispatch
- Grid Code consultation on NISM name change

## Next steps

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- CM Systems development ongoing within System Operator
- Website architecture and content in development
- SBR Operational Methodology to be updated and issued
- Grid Code Panel review of NISM name change
- CBR messaging templates updated for BMRS / SONAR
- CM Go live on 01/10/16, CBR active from 01/11/16

# Q&A

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