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Winter Outlook Report



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Winter Outlook Report 2015/16

- Published on the 15th of October
- Security of supply for winter
- Product of Winter Consultation process
- Market facilitator role
- Section:
  - Winter view
  - Operational view
  - Operational toolbox
  - Interconnected markets

Improving the Winter Outlook Report

Explanation of complex concepts could be clearer.	Key concepts and terms are explained at the start of each chapter and there is now a link to the glossary on every page.
The new layout and format of the Winter Review is easier to read and helps you to find the information you need.	We have kept the new structure from the Winter Review. You will find the big picture and key messages at the start of each chapter, before the detailed analysis.
The electricity analysis could be presented more clearly.	We have simplified how we present our electricity analysis. You can find more details at the start of the electricity section.

2015/16 Changes

- Introduction of winter view and operational view
  - Easier to understand
- Removal of arduous view and clean forecast
  - Previous level of detail provides a false sense of accuracy, not reflecting layers of assumptions that are applied
  - Clean forecast not useful
- 4 different views of demand reduced to 2

Winter view

Key messages

- Electricity margins remain manageable
- We have procured additional contingency balancing reserve (SBR/DSBR) compared to 2014/15
- Loss of load expectation is 1.1 hours/year, equivalent to a de-rated margin of 5.1%
- There is an increased likelihood that we will use the contingency balancing reserve procured for this winter to assist in system balancing.

Winter view

- Security of supply for the whole winter period
- Uses LOLE and de-rated margin
- Based on our Future Energy Scenarios 2015, range of credible scenarios
- Informs the procurement of additional contingency balancing reserve

Winter view

No change to the margin and LOLE figures from those published in our Winter Review & Consultation in July 2015

De-rated capacity margin	5.1 %
Loss of load expectation	1.1 hours/year

Generation	Demand*	Interconnectors
70 GW total	55.1 GW	1.1 GW net imports
56.5 GW de-rated		
2.4 GW SBR/DSBR		

* ACS peak transmission system demand

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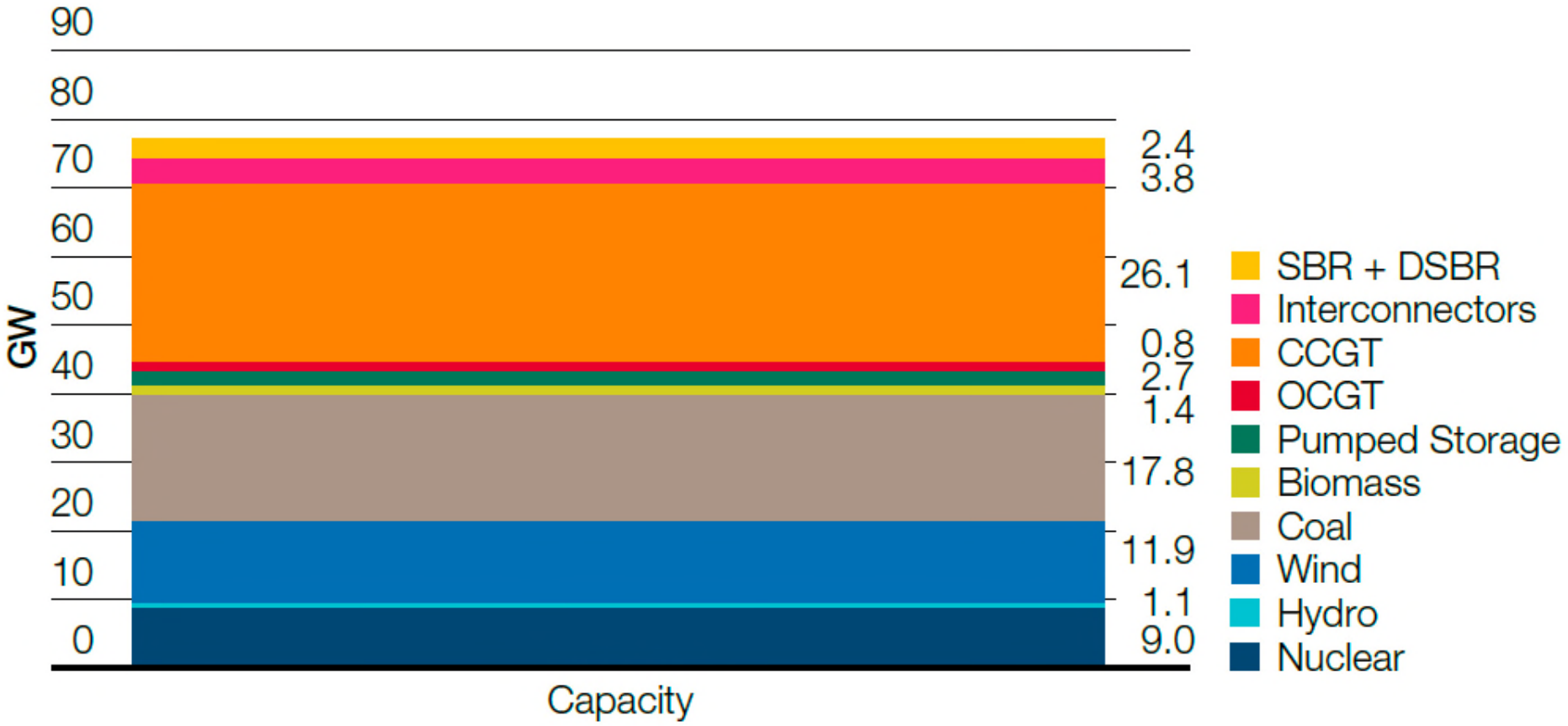
Generation Capacity



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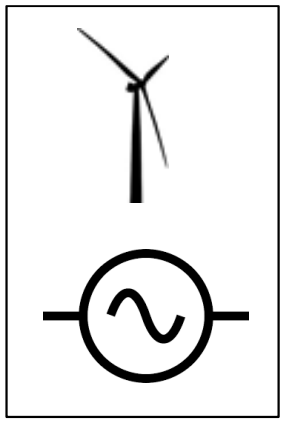
Generation

- De-rating factor, breakdowns, outages and shortfalls
- Historic availability over peak demand, past 7 years
- Equivalent Firm Capacity (EFC) for wind

Power station type	Assumed availability
Nuclear	82%
Hydro	85%
Wind EFC	22%
Coal and biomass	88%
Pumped storage	97%
OCGT	95%
CCGT	87%

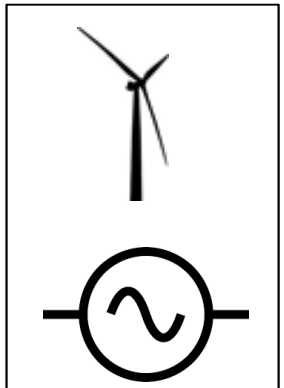
Effective Firm Capacity



= 10GW (capacity)

= 54GW (de-rated)

LOLE = 1.1hrs



= 0GW (capacity)

= 54GW (de-rated)

LOLE = 1.1hrs

EFC Wind

= 2GW (perfectly reliable generation)

Operational View

Key messages

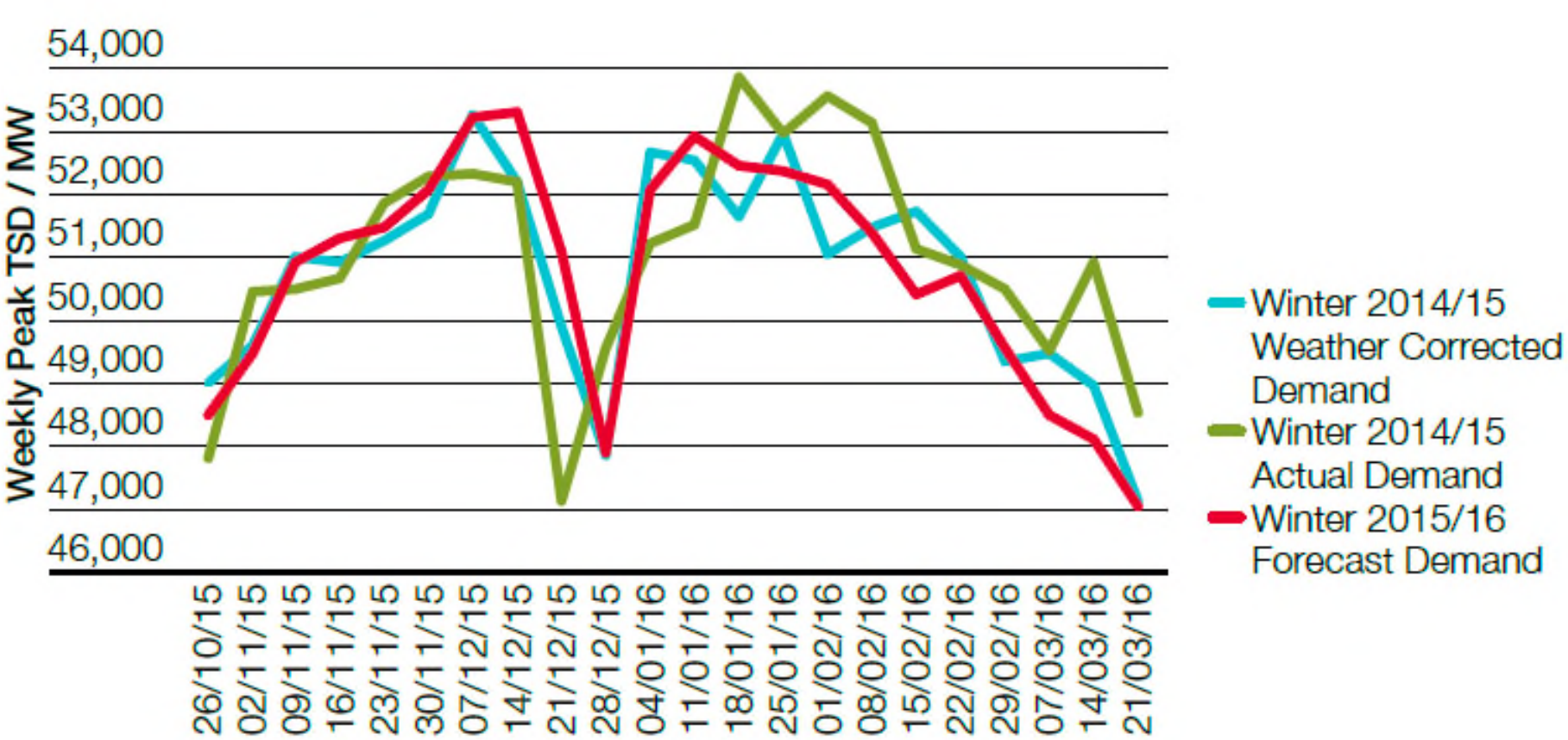
- Based on current data, demand is expected to peak in mid-December
- Current information indicates that the week commencing the 26th October has the lowest operational surplus
- The week with the next lowest level of operational surplus is expected to be the 11th of January
- We are able to meet normalized demand in all weeks across the winter under three different interconnector scenarios; the only exception is the week commencing 26th October when demand is met by medium and full interconnector imports.

Operational View

- Based on current generation availability data (OC2 as of 8th Oct 2015, current data available on BM Reports)
- Expected breakdown rate per fuel type
- Modelled against normalised demand and range of interconnector flows
- Does not take account of any market response by generators to high demand or tighter conditions

Demand

- **Normalised demand peak of 53.3GW, week commencing 7th and 14th Dec**



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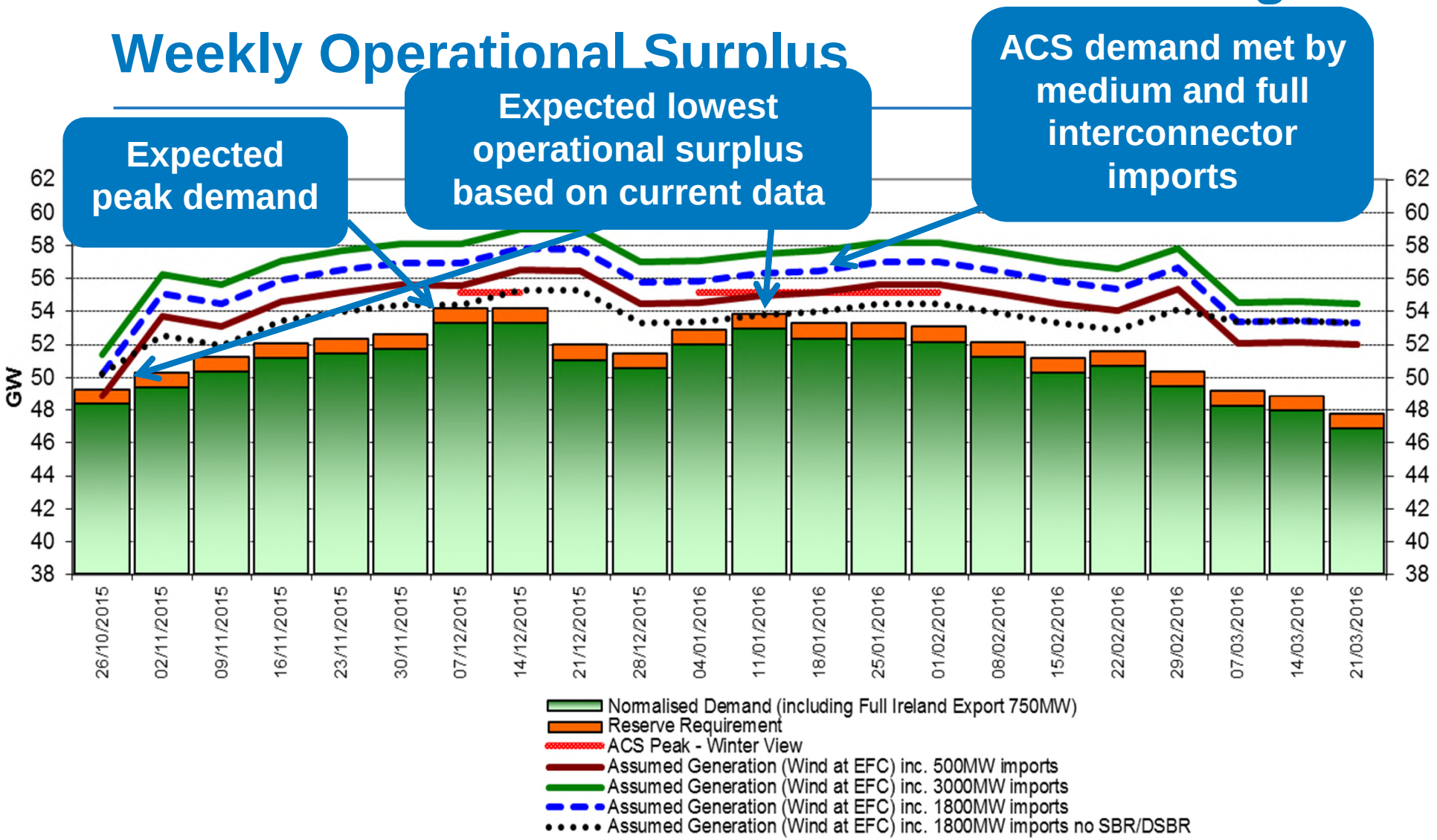
Generation

- OC2 submissions de-rated by a breakdown rate per fuel type

Generation Type	Breakdown Rate when Available
Nuclear	12%
Hydro generation	10%
Coal and biomass	12%
Pumped storage	2%
OCGT	2%
CCGT	12%

Weekly Operational Surplus



OC2 data 8th October 2015

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System Notifications

- Notifications may be issued to inform the market of potential shortfalls to allow the market to respond
- Notice of Inadequate System Margin (NISM) issued to inform the market of a reserve shortfall – required before SBR and DSBR services can be called

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Interconnectors

Key messages

- Forward power prices for this winter and analysis of price spreads from last winter suggest that European interconnectors will be flowing into GB
- Based on current high power prices in Ireland, we expect there to be a net flow of electricity from GB to Ireland
- Weather, plant unavailability and increased penetration of renewable generation, mean significant volatility of power prices close to real-time.
- This results in significant uncertainty for any long-term flow forecast

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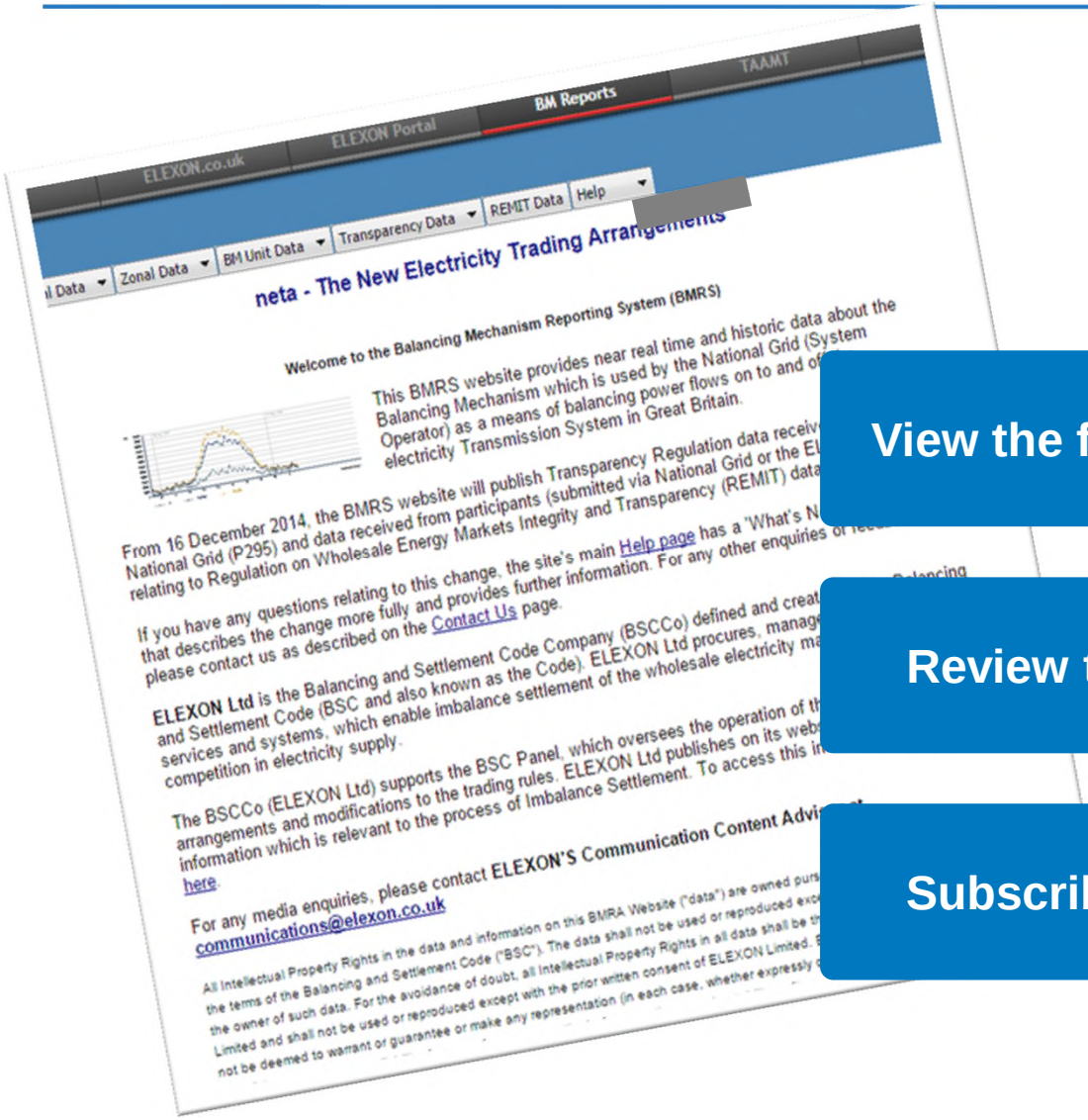
Keep up to date



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