

Public

# Harmonisation of Imbalance Settlement proposals

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Industry Workshop

22 August 2018

nationalgrid  
**ELEXON**



# Welcome

Steve Wilkin, ELEXON

# Health & Safety

## In case of an emergency

An alarm will sound to alert you. The alarm is tested for fifteen seconds every Wednesday at 9.20am

## Evacuating 350 Euston Road

- If you discover a fire, operate one of the fire alarms next to the four emergency exits.
- Please do not tackle a fire yourself.
- If you hear the alarm, please leave the building immediately.
- Evacuate by the nearest signposted fire exit and walk to the assembly point.
- Please remain with a member of ELEXON staff and await further instructions from a Fire Warden.
- For visitors unable to use stairs, a Fire Warden will guide you to a refuge point and let the fire brigade know where you are.

## When evacuating please remember

- Do not use the lifts.
- Do not re-enter the building until the all clear has been given by the Fire Warden or ground floor security.

**Our team on reception is here to help you, if you have any questions, please do ask them.**



# Who we are



Steve Wilkin  
ELEXON



George Daniel  
National Grid



Peter Frampton  
ELEXON

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# Objectives of today's workshop

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- To summarise and discuss the European TSOs' proposals
  - Issued for consultation on 16 July 2018
- To discuss potential impacts on you and on the GB imbalance settlement arrangements
- To encourage and help develop responses to the public consultation
  - Consultation closes on 28 September 2018
- To provide contact details for further information/discussion after this Workshop

# What we will cover

## Agenda

- 1. Welcome (& domestic arrangements)**
- 2. Legal context to the TSOs' draft proposal**
- 3. The TSOs' proposals and explanations in detail:**
  - Imbalance Adjustment
  - Position, Imbalance, Allocated Volume
  - Imbalance Price components
  - Value of Avoided Activation
  - Single and Dual pricing
- 4. Key potential impacts on GB arrangements**
- 5. Final Q&A**
- 6. Conclusion**

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## Some European terminology for reference

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- Allocated volume – metered or profiled generation or demand in each Settlement Period
- BRP – ‘Balance Responsible Party’, someone who pays or is paid imbalance charges – in GB, a ‘BSC Party’
- EB GL – the European ‘Electricity Balancing Guideline’ – a European law, that drives this harmonisation
- Imbalance adjustment – volume of energy associated (in GB terms) with a National Grid dispatch instruction, e.g. a BOA volume or an ABSVD volume
- ISP – ‘Imbalance Settlement Period’, in GB simply ‘Settlement Period’
- NRA – ‘National Regulatory Authority’, e.g. Ofgem in GB
- Position – energy contract volume
- TSO – ‘Transmission System Operator’ – in GB, this is National Grid ESO
- 3<sup>rd</sup> Party – a body like ELEXON that is not a TSO but which undertakes imbalance settlement; OR depending on the context, another supplier or aggregator who takes a proportion of the metered volume




# Legal context

George Daniel, National Grid



# Legal Context

- Article 52 of EBGL requires each TSO/3<sup>rd</sup> party to settle, when appropriate, each BRP for each ISP all imbalances against the appropriate imbalance price
- Also requires **all TSOs** to further specify and harmonise:
  - Calculation of an imbalance adjustment, position, an imbalance and an allocated volume
  - Main components used for calculation of imbalance price, and definition of value of avoided activation
  - Use of single imbalance pricing, which defines a single price for +ve and –ve imbalances
  - Definition of conditions and methodology for applying dual imbalance pricing
- Final proposal is required by 18 Dec 2018
- Implementation date must be no later than 18 months after approval, **likely by end 2020**



# Article 4: Position, Imbalance and Allocated Volume

Peter Frampton, ELEXON

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# Position, Imbalance and Allocated Volume – TSO Proposal

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- Balance Responsible Parties should have a single final position, summing commercial trade schedules.
- The imbalance for a Party across a Settlement Period is calculated by applying the definition of imbalance from EBGL, using data delivered in accordance with EBGL
  - Definition of imbalance: The difference between allocated volume and final position, including imbalance adjustments
- Calculated imbalance should be reported without delay, in accordance with T&Cs
- Allocated volume is calculated as netted metered volume, as well as all corrections related to volume assigned to third parties
  - Third parties clause allows for MVRNs as well as Aggregators
- Allocated volume should be reported without delay in accordance with T&Cs

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# Rationale

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- Use of a single position is simpler and easier for parties to understand and to administer
  - NB. ELEXON currently retain production and consumptions accounts which can continue – the proposal only addresses position for calculation rather than notification, and the effect is anyway the same with single price
- Arrangements for adjustments allow for e.g. aggregators to operate in the market.
- The arrangements specifically separate Settlement Period level metering (e.g. smart meters) and non-smart metering, but both are included.
- Ensures obligations of TSO to inform Parties of allocated volumes and imbalance, and the rights of Parties to be informed.
  
- No changes expected for GB arrangements



# Article 5: Imbalance Price Components

Peter Frampton, ELEXON

# Imbalance price components – TSO Proposal

- Lists components that 'shall only' be used i.e. exhaustive list (or is it?)
  - VoAA (explained next)
  - Prices from balancing energy for frequency restoration reserve (FRR, e.g. MARI)
  - Prices from balancing energy for replacement reserve (RR, e.g. TERRE)
  - Prices from 'intended exchange of energy' from imbalance netting
- TSOs can propose that a scarcity component is used, to be determined by the relevant National Regulatory Authority, i.e. Ofgem for GB
  - ELEXON will need to confirm with Ofgem to continue using the scarcity component (VoLL) for replacement pricing in scarcity situations
- The only volumes which can be used for calculating imbalance price are
  - Volumes from balancing energy for frequency restoration
  - Volumes from balancing energy for replacement reserve
  - Volumes from 'intended exchange of energy' from imbalance netting

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## Additional information/Rationale

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- TSOs must use at least one component of the list. The explanatory document adds that other components are left to the consideration of the NRAs (not main components)
  - For example, prices and volumes from Frequency Containment Reserve
- Article 55 of the EBGL additionally imposes boundary conditions – the weighted average price of RR/FRR actions
- Administrative costs were considered but not included as they do not relate to the cost of balancing energy



# Article 6: Value of Avoided Activation

Steve Wilkin, ELEXON



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# Value of Avoided Activation (VoAA) in GB

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- In full, VoAA is the:
  - ‘value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves’
- When is it used? In GB terms:
  - When **no** upward or downward energy balancing actions (including by netting out system balancing actions) have been taken by National Grid in a settlement period:
    - SBP must be at least VoAA
    - SSP must be at most VoAA
- So it fulfils a role equivalent to Market Index Price (MIP) in the BSC, which is used when NIV = 0
  - MIP is also used as a Replacement Price in the BSC

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# The TSOs' draft proposal for VoAA (July 2018)

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## ■ Article 6:

- (1) draws an obvious conclusion from the EB GL as to when VoAA **has** to be calculated, i.e. for settlement periods with no balancing energy
- (2) there may be two VoAAs if there is dual imbalance pricing – not currently relevant to GB of course
- (3) doesn't specify how to calculate VoAA but does specify the input data to the calculation. **Only** the following **may** be used:
  - Prices of balancing energy available to National Grid to balance the system even though not used (including prices from other TSOs)

## Why? (Explanatory document)

- These requirements also apply when the imbalance price is set to VoAA:
  - Imbalances must be settled at a price that reflects the real time value of energy
  - The settlement process must provide incentives to balance or help the system to restore its balance
- Options considered but rejected on the basis that they don't reflect the real time value of energy:
  - fixed price; price based on neighbouring settlement periods; day-ahead price; intraday price
- Only inputs are specified - to be consistent with the general imbalance pricing approach of specifying inputs to the price calculation but not the calculation itself
- VoAA must be used when there are no energy balancing activations, so no volume inputs are specified, only the energy balancing prices available to National Grid



# Article 7: Use of Single Pricing

Peter Frampton, ELEXON

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# Single Pricing– TSO Proposal

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- TSOs shall use single pricing, not later than application of 15 minute settlement periods (‘with the exemption stated in paragraph 2 *[of Article 53 of the EBGL]* and, where applicable, taking into account a derogation granted in accordance with the Article 62(2)(d) of the EBGL’)
- GB uses single pricing and will continue to do so
- Single pricing is specified in the EBGL, therefore this point is straightforward



# Key potential impacts on GB arrangements

George Daniel, National Grid

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# Potential impacts on GB arrangements

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- **VoAA to replace MIP**
- ISPs when no balancing actions taken or where  $NIV = 0$ , VoAA will set the imbalance price rather than MIP
  - Price of balancing energy available to National Grid rather than short-term market price of wholesale electricity
- BSC Mod will be required to define VoAA calculation e.g. exact volumes
  
- **Scarcity component**
- ELEXON will need to confirm with Ofgem to continue using the scarcity component (VoLL) for replacement pricing in scarcity situations



# Final Q & A

All





# Conclusion

George Daniel, National Grid

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# Conclusion

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- Essential to ensure GB views are properly represented in Europe so please respond to the consultation
- TSOs and NRAs need to be informed of GB position
- Consultation closes 28 September

[https://consultations.entsoe.eu/markets/imbalance\\_settlement\\_harmonisation\\_proposal/](https://consultations.entsoe.eu/markets/imbalance_settlement_harmonisation_proposal/)

Any questions

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