ElecLink

June 2020

Settlement of TERRE, MARI and other ancillary services over interconnectors

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Overview

In GB the settlement arrangements for interconnectors are set out in the BSC.

BSC Section R paragraph 7 sets out how BM Unit Metered Volumes are determined for each Interconnector BM Unit.

Wholesale market

- Each user of the interconnector has two Interconnector BM Units (production and consumption) assigned. Used for explicit (nominations by physical rights holders) and implicit (market coupling, and in the future XBID)
- The Interconnector Administrator ("IA") determines the total Active Energy for each Interconnector BM Unit for each Settlement Period, and informs Elexon.

Balancing market

- For the purposes of allocating and accounting for the energy between NGESO and the connecting European TSO, two notional BM Units assigned to NGESO for each interconnector.
- NGESO determines the MWh volumes for any system-to-system flows (as documented in a NGESO methodology approved by Ofgem).
  https://www.nationalgrideso.com/industry-information/codes/balancing-framework-and-balancing-and-settlement-code-bsc

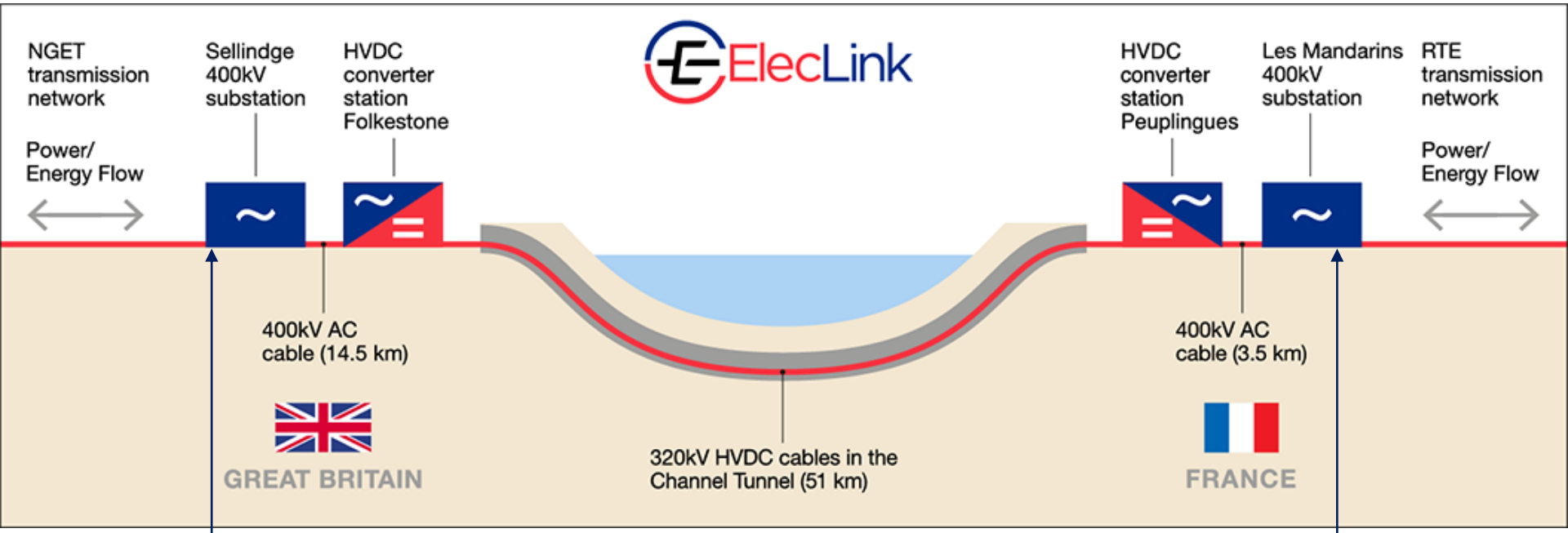
  NOTE: These methodology statements have still not been updated to account for TERRE MWh volumes, despite this being highlighted in the Ofgem TERRE derogation decision in November 2019[1].
- Volumes are allocated to the NGESO account as part of DMV submission (values for all Interconnector BM Units sent by IA).

Interconnector Error Administrator ("IEA")

- Each interconnector has two BM Units for the Interconnector Error Administrator. Note that each interconnector will have it's own IEA (even in the case of multiple interconnectors on the same border).
- Note, that the IEA does not necessary have to be the interconnector owner.
- Any difference between the total MWh volumes for both the wholesale and balancing market (DMV or deemed meter volumes), and the actual metered MWh volume is assigned to the Interconnector Error Administrator account. The Interconnector Error Administrator is liable to pay imbalance charges for these volumes like any other BM Unit.
  Further details in this Elexon guide: https://www.elexon.co.uk/documents/training-guidance/bsc-guidance-notes/interconnector-trading/
- The imbalance charges for the IEA account are calculated by Elexon.

1. https://www.ofgem.gov.uk/publications-and-updates/decision-grant-eso-derogation-use-terre-platform

Current approach – ancillary services



Half hourly metered import MWh

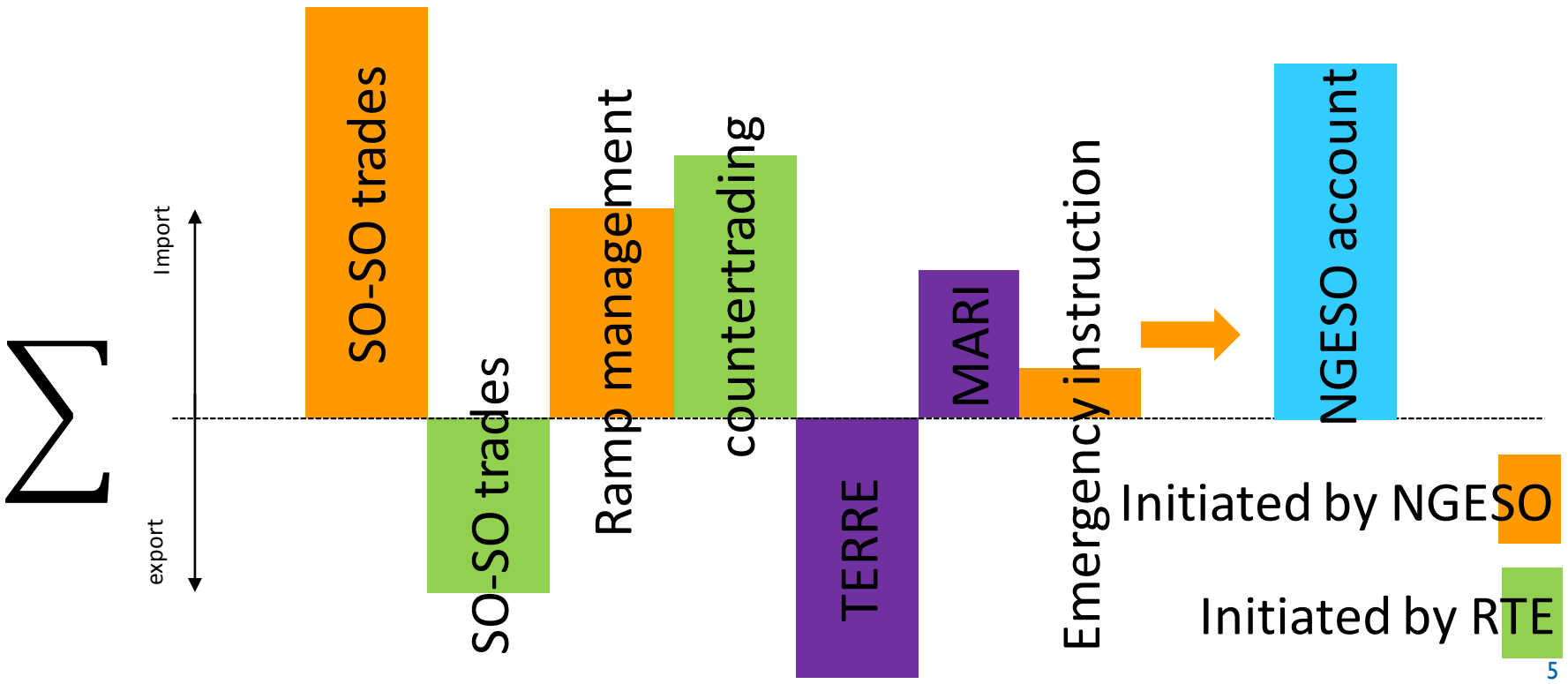
NGESO account
Market coupling (EMCO) account
ElecLink customer 1
ElecLink customer 2
...

ElecLink error account

Balancing and ancillary service MWh volumes (inc. TERRE) are assigned to the NGESO account in GB. These volumes are subject to financial settlement between NGESO/RTE and ElecLink

Ancillary and balancing service settlement

- The volume assigned to the NGESO account are in reality a net sum of all ancillary and balancing service MWh volumes in that settlement period.
- Numerous, different ancillary services are supported, and both NGESO (and RTE) can request different, individual services.
- Note that all volumes (NGESO and RTE initiated) are assigned to NGESO account.

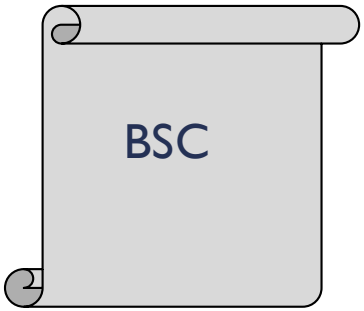


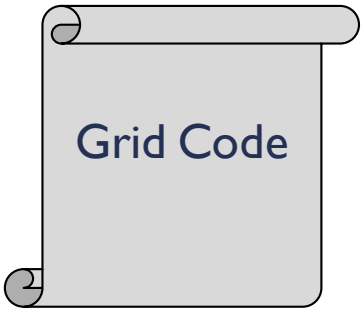
MARI considerations

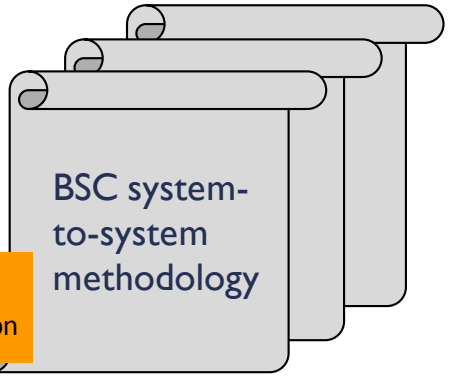
- **MWh volume determination** (block vs profiled volume determination)
  This must be aligned with connecting EU TSO, documented within the BSC system-to-system flow methodology, and approved by Ofgem.
  - To ensure consistent arrangements (and to reduce the burden for NGESO of developing multiple methodologies) the MWh volume determination could be brought into the BSC (from the system-to-system methodologies).
- **Interconnector ramp rates**. NGESO and connecting EU TSO to agree interconnector ramp rate (MW/min) and ramping period (minutes) for MARI activations. To ensure consistent arrangements this could be moved from EU methodologies and bi/tri-lateral agreements into the Grid Code. August 2019 Ofgem decision[1.] explicitly asked NGESO to describe such ramping restrictions within the Grid Code.
- **Offered interconnector capacity** to be determined by NGESO and connecting EU TSO. Article 37 of the Electricity Balancing Guideline (EBGL) requires TSOs to use remaining intraday capacity, or to develop a coordinated capacity calculation methodology. MARI should consider capacity left over after TERRE.
- **15 minute settlement** – EU TSO pricing methodology requires 15 minute settlement for TSO capacity pricing. This approach should be noted in the BSC to support the bilateral arrangements and avoid any confusion with the 30 minute GB imbalance settlement period.
- **Publications** of the offered capacity, and ramp rates to increase transparency of NGESO actions.
- **Interconnector scheduling**. The calculation to translate the block MARI interconnector schedule into the profiled point-to-point interconnector schedule is performed by the interconnector owner. This calculation is complex, and subject to many constraints (constraints mainly introduced by NGESO and RTE). Interconnectors need to understand requirements fully, with sufficient time to make system changes.
- **Consider other services.** MARI arrangements will have to sit alongside other services delivered over interconnectors, including TERRE.

1. https://www.ofgem.gov.uk/system/files/docs/2019/08/article_118_and_119_final_decision.pdf

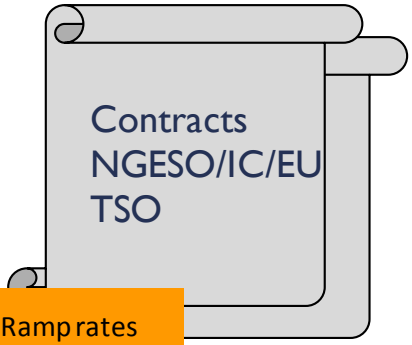
Regulatory/contractual framework





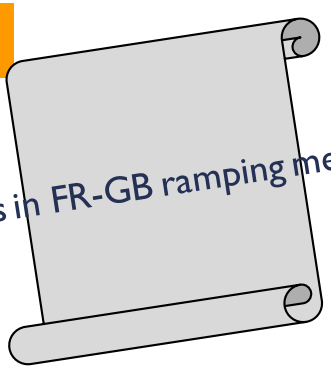


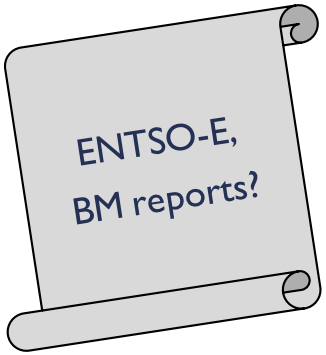
MARI MWh determination



Ramp rates

15 min





Publications