Implementation of Common Data Exchange Solutions: GB Experience

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Background

• The EU Interoperability Network Code (Commission Regulation (EU) 2015/703) became EU law on 30th April 2015

• TSOs across Europe were required to comply with its requirements by 1st May 2016

• The purpose of this Code is to remove barriers to cross-border gas flows in Europe

• One of these barriers was determined to be a lack of harmonisation in the way that data is exchanged between TSOs and between TSOs and shippers

• TSOs were therefore required to implement ‘Common Data Exchange Solutions’ in their nominations and capacity trading arrangements with adjacent TSOs and shippers at Interconnection Points (IPs)
  • IUK and BBL at Bacton (ICs to Belgium & Netherlands)
  • Moffat in Scotland (IC to RoI and NI)
Common Data Exchange Solutions (CDES)

The CDES as per Article 21 of the Interoperability Code are shown below:

| ‘Toolbox’ item  | Network  | Structure Format | Content Format | Data exchange protocol
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</thead>
<tbody>
<tr>
<td>Document based</td>
<td>Internet</td>
<td>XML</td>
<td>Edig@s</td>
<td>AS4</td>
</tr>
<tr>
<td>Integrated</td>
<td>Internet</td>
<td>XML</td>
<td>Edig@s</td>
<td>SOAP</td>
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<tr>
<td>Interactive</td>
<td>Internet</td>
<td>None</td>
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Context

• GB had market-based arrangements for capacity allocation and system balancing prior to the Third Energy Package
  
  • No fundamental changes required to accommodate CAM and BAL Codes

• INT Code largely based on voluntary EASEE-gas Common Business Practices, which NW Member States had adopted but not GB, NI or RoI

• The EASEE-gas CBP for data exchange set out use of Edig@s over the internet

• Since the commencement of the GB national network code in 1996, the means of data exchange for capacity and nominations with shippers has been a private data network (the Information Exchange or IX)
GB Approach

- To meet compliance timescales, we had to start implementation activities for CAM, BAL and INT before those Regulations were finalised.
- At that time, it was not clear which CDES would be required for each business process.
- Our IT assessment concluded that ‘integrated’ data exchange (web services) would be the preferred fit with National Grid systems.
- Some of our counterparties preferred the ‘document based’ solution.

PROBLEM!

SOLUTION?  \[\Rightarrow\]  B2B layer / cloud
B2B Layer / Cloud

Shippers System

B2B Cloud

Adjacent TSO System

Gemini System

TSO to TSO: EU Phase 2

Shipper to TSO: EU Phase 3
‘TSO to Shipper’ Data Exchange

- National Grid consulted GB shippers about whether they would want to use the CDES for their commercial operations at IPs
- All preferred to carry on using the IX (private data network)
- We therefore sought and received approval from our NRA (Ofgem) under Article 23(2) to enable shippers to continue using IX, whilst having the capability to offer the CDES in the future
- TSO-TSO CDES implemented in October 2015
  - to facilitate nominations matching
- TSO-Shipper CDES implemented in May 2016
  - to meet the compliance date in the INT Code
The Future?

- **FUNC issue on data exchange** is likely to require TSOs to extend the application of CDES from IPs only to include ‘virtual trading points’
  - ‘Trade nominations’ at the NBP in our case
- Some (but not all?) GB shippers would like us to adopt Edigas for all entry and exit points
- ‘Piecemeal evolution’ or ‘revolution’?
- We intend to open a debate the future of IX in GB shortly