4th User Group Meeting

Brussels, 29.06.2016
<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA ITEM</th>
<th>PRESENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 – 10:05</td>
<td>1. Welcome, Agenda</td>
<td>Mark Pickles</td>
</tr>
<tr>
<td>10:05 – 11:15</td>
<td>2. Project Status Overview and follow-ups from last UG</td>
<td>Mark Pickles</td>
</tr>
<tr>
<td>11:15 – 12:00</td>
<td>3. Implementation of the XBID Solution</td>
<td>Martin Vančura</td>
</tr>
<tr>
<td></td>
<td>a) Overview of NEMOs per BZ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Timeline to define XBID products</td>
<td></td>
</tr>
<tr>
<td>12:00 – 12:30</td>
<td>4. Go-live scenarios</td>
<td>Katja Birr-Pedersen</td>
</tr>
<tr>
<td></td>
<td>a) Proposal by XBID parties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Feedback from UG</td>
<td></td>
</tr>
<tr>
<td>12:30 – 13:15</td>
<td>Lunch Break</td>
<td></td>
</tr>
<tr>
<td>13:15 – 13:45</td>
<td>5. LIPs – general status overview</td>
<td>Katja Birr-Pedersen</td>
</tr>
<tr>
<td>13:45 – 15:45</td>
<td>6. LIPs individual status and progress reports</td>
<td>Igor Honhoff</td>
</tr>
<tr>
<td></td>
<td>a) LIP Baltic</td>
<td>Julius Schwachheim</td>
</tr>
<tr>
<td></td>
<td>b) LIP at Italian Northern Borders</td>
<td>Several</td>
</tr>
<tr>
<td></td>
<td>c) LIP 7 and LIP 10</td>
<td>Igor Honhoff</td>
</tr>
<tr>
<td></td>
<td>d) LIP 1</td>
<td>Katja Birr-Pedersen</td>
</tr>
<tr>
<td></td>
<td>e) LIP 2</td>
<td>Katja Birr-Pedersen</td>
</tr>
<tr>
<td></td>
<td>f) LIP 3</td>
<td>Roelof de Vries</td>
</tr>
<tr>
<td></td>
<td>g) LIP 4</td>
<td>Jens Axmann</td>
</tr>
<tr>
<td></td>
<td>h) LIP 5&amp;11</td>
<td>Tjitske Kramer</td>
</tr>
<tr>
<td></td>
<td>i) LIP 6</td>
<td>Viviane Illegems</td>
</tr>
<tr>
<td></td>
<td>j) LIP 8</td>
<td></td>
</tr>
<tr>
<td>15:45 – 16:00</td>
<td>7. Closing remarks, reflections on the day</td>
<td>Mark Pickles</td>
</tr>
</tbody>
</table>
Agenda

2. Project Status Overview and follow ups from last UG meeting
3. Implementation of the XBID Solution
4. Go-live scenarios
5. LIPs – general status overview
6. LIPs individual status and progress reports
7. Closing remarks, reflections on the day
Project Status Overview and follow ups from last UG Meeting

Mark Pickles
TSO Project Manager,
Convenor Communications Task Force, BMTF, IPT
Content
1. Project Timeline
2. Project Progress
   • Achievements
   • Context
3. Accession Stream Update
4. Emerging risks
5. Summary
1. Project Timeline – Updated High Level Delivery Plan until Go-Live

**Current position**

- **Dec 14**: Project start date.
- **Apr 15**: XBID Core Development.
- **Dec 15**: XBID DBAG Functional Specification.
- **Mar 16**: XBID ID DBAG Functional Specification.
- **Jun 17**: XBID Test (FAT-IAT).
- **Aug 17**: SM Test.
- **Oct 16**: Test (UAT).
- **3M**: Go-Live Preparation.

**New dates**

- **Current position**
- **Delayed commencement of IAT by 9 weeks due to late start of 3rd party support. Time used efficiently to progress important Gaps & Change Requests**

**First LIPs Go-Live Within Q3 2017**

- **27,25M + 2,25M delay**
- **2,25M delay**

**Pre – UAT Perf.**

- **TSO IAT**
- **PX IAT**

**UAT**

- **FAT SM**
- **IAT SM**
- **5,25M**
- **13,25M**

**Planned**

- **On-going**
- **Completed**

***SM – Shipping Module**
2. Project Progress – **Key achievements**

- **SOB and CMM Development** has been completed
- **The first and second phase of testing has been successfully completed** (Factory Acceptance Testing I and II). The completion report for FAT II should be agreed shortly. FAT II has given some positive indications on system performance.
- **The Shipping Module (SM) development is due to be completed soon** and this will enable project integration with SOB/CMM. This mitigates the risk of the SM specification having been developed later than SOB-CMM.
- **Hosting contract negotiations on 14th and 15th closed the open business points based on the agreements reached at the Exec meeting with Dr Borchardt on 23rd May.** Legal review meeting held on 23rd - all open points except 1 have been agreed
- Positive progress achieved with the drafting of **operational procedures**
- Implementation of the **MPLSs** (secure communications channels) is **well advanced with COLT and Orange**.
- Independent financial audits of the PXs 2015 costs completed with positive results. The audits have been shared with the NRAs.
- Preparations for **TSO IAT are well advanced** with connectivity information having been provided by TSOs to DBAG
- The EC have confirmed **XBID as the basis for the pan-European solution**
- The **Accession Stream has been mobilised** with regular meetings and commencement of Knowledge Transfer
2. Project Progress – Context (1/6)

XBID continues to be a complex project to deliver

• There has been pressure in the plan due to the delayed start of 3rd party support. This has now been quantified and it is delaying XBID go-live by 9 weeks.
  - Go-Live is still within the previously planned Q3 ‘window’, 2017, but will now take place towards the end of Q3
  - The 9 week period, which is delaying commencement of Integration Acceptance Testing (IAT) and User Acceptance Testing (UAT), is being used to bring forward activity on important Gaps and Change Requests (CR) areas such as:
    • Implementation of instant alarm messages (SMS/emails) to all PXs in the event of XBID incidents and implementation of logging of PMI (Public Message Interface)
    • Analysis of the TSO Data Vendor Concept (enabling an agreed third party to send/receive information on behalf of TSOs) and Losses on DC Cables
  - Further analysis will take place in the future on the CACM requirements not possible to deliver for go-live
2. Project Progress – Context (2/6)
Additional investment in Shipping Module (SM)

- During the Hosting negotiations discussions have taken place with regards to the performance and liabilities associated with files delivered to TSOs, PXs and Shippers which are either incorrect or late.
- In view of the importance of ensuring that liabilities are minimised DBAG have proposed that two additional investments are made to the SM:
  - Acceleration of the Failover Process
  - Real Time Data Flow Concept
- DBAG have provided an estimated DBAG cost of up to 1m€ to deliver this and in consequence would be prepared to offer 100% SLA on delivery of the correct files as well as taking responsibility for the liabilities.
- Project Parties have decided to proceed with this investment and have asked DBAG to raise the Change Requests/undertake the detailed analysis. This is pending confirmation from the NRAs and pending confirmation that any liabilities will be recoverable in the interim period until this investment is in place.
2. Project Progress – Context (3/6)  
Performance – History

- PXs and DBAG agreed XBID performance by the means of Realistic Test Scenario (RTS) which represents **realistic situation of a busy hour of a busy day** for predefined topology
- RTS is an inseparable part of the **XBID Quality Plan** and as such a subject of the **successful completion** of FAT, Performance Pre-UAT and UAT
  - RTS was executed during FAT I and FAT II tests. The results clearly gave us positive indications of performance.
  - In FAT II 99.50% of the orders entered into the systems were processed within 120ms and for these public order book deltas were distributed within 359ms.
  - The processing duration of these response times indicators was 15 times, resp. 7 times faster than required by the limits set in the Quality Plan.
- Daily XBID load parameters are contractually framed by the **System Boundaries** (e.g. no of orders per day)
- RTS also represents a basis for the XBID operational phase; key RTS parameters are incorporated into **Key Performance Indicators** (KPIs)
- System Boundaries(E20)/RTS lead into **different interpretation of the KPIs/SLAs time basis** by the PXs (hourly) and DBAG (daily)
  - Daily SLAs means that one hour exceeding SLAs would invalidate SLAs for the whole day
- PXs and DBAG, with support of EC, agreed to develop a new RTS2 which will **reasonably reflect expected market dynamics**, order volumes and include Block Orders. The hourly KPIs will be included in this RTS2.
2. Project Progress – Context (4/6)
Performance – Status

• PXs propose three adaptations which should be reflected in RTS 2 and/or E20:
  – **To add a peak for block orders**
    • There’s no peak load for block orders in the current RTS which is not realistic situation.
    • Proposed change will have minimum impact on design complexity of the RTS 2.
    • Discussed with DBAG - no objections.
  – **To increase the percentage of order events in peak**
    • In some markets, PXs observe that 30-35% of the order events occur during peaks. This means that PXs observe several peaks consisting of significantly more order events occurring within a single second.
    • Both the RTS and Exhibit 20 do not cover these cluster patterns.
    • Discussed with DBAG – this could be reflected in RTS 2 by moving current orders out of baseload and plateau into new peaks.
  – **To adapt the maximum number of order events per day**
    • RTS 2 does not need to be modified in order to incorporate this Exhibit 20 update.
    • We see the need to adapt the maximum number of order events per day in Exhibit 20, as we observe a significant increase of orders in our markets.
    • Discussed with DBAG – Exhibit 20 needs to be updated according to RTS 2.
2. Project Progress – Context (5/6)
Factory Acceptance Tests (FAT II) outcome summary

• The FAT II was concluded on time with agreed scope
• The exit criteria were met

<table>
<thead>
<tr>
<th>Severity 1 – Critical</th>
<th>Severity 2 – Major</th>
<th>Severity 3 – Minor</th>
<th>Severity 4 – Trivial</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>Actual 0</td>
<td>Actual 2</td>
<td>Actual 8</td>
<td>Actual 19</td>
</tr>
</tbody>
</table>

• In scope for FAT II
  – Test models agreed together with PXs/TSOs and DBAG
  – Covers the SOB /CMM functionalities
  – Covers the RTS (performance)

• Out of scope for FAT II
  – Shipping Module
  – Failover

• Finalization of documentation ongoing in order to accept and close the test phase
2. Project Progress – Context (6/6)

RTS performance results

- Results of RTS performance test performed on production like Performance environment (without failover side)

<table>
<thead>
<tr>
<th>(XX % of the measures should be below the mentioned value)</th>
<th>Percentile values from the test run (SLA values)</th>
<th>Percentile values from the test run (SLA values)</th>
<th>Percentile values from the test run (SLA values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response Time Indicators (1)</td>
<td>FAT phase</td>
<td>95% (3)</td>
<td>99,50% (3)</td>
</tr>
<tr>
<td>Order execution and trade capture response (3-4a/4b) – Indicator 1a and 1b</td>
<td>FAT II</td>
<td>48</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>FAT I</td>
<td>96</td>
<td>239</td>
</tr>
<tr>
<td></td>
<td>Quality Plan</td>
<td>(895)</td>
<td>(1790)</td>
</tr>
<tr>
<td>Response time of the API</td>
<td>FAT II</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>FAT I</td>
<td>29</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Quality Plan</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Public Order Books Reports response (3-6)</td>
<td>FAT II</td>
<td>138</td>
<td>359</td>
</tr>
<tr>
<td></td>
<td>FAT I</td>
<td>250</td>
<td>603</td>
</tr>
<tr>
<td></td>
<td>Quality Plan</td>
<td>(1265)</td>
<td>(2530)</td>
</tr>
</tbody>
</table>

- 99.50% of the orders entered into the systems are processed within 120ms and for these is public order book delta distributed within 359ms.
3. Accession Stream Update

- The Accession Stream has been mobilised
- Regular Management Meetings are being held with the Accession Parties
- Knowledge Transfer has commenced with a high level workshop held on 19\textsuperscript{th} April and a further Induction Session held on 25\textsuperscript{th} May
  - The first of the in-depth Knowledge Transfer workshops was held on 22\textsuperscript{nd} June. This focused on PX technical documents
  - There continues to be a challenge in mobilising sufficient TSO resources to support Knowledge Transfer as resources are already stretched and TSOs are facing particular challenges with implementation of multiple network codes
- IDSC have agreed that all Project Bodies and Governance Meetings should be open to Accession Stream observers (1 TSO and 1 PX).
  - Accession Parties have accordingly nominated their resources and attendance has commenced – including for IDSC
- Accession Parties have sent a Letter of Cost Comfort to the NRAs on 23\textsuperscript{rd} June
### 3. Accession Stream members

<table>
<thead>
<tr>
<th>Logo</th>
<th>Company</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="logo_EXAA.png" alt="EXAA" /></td>
<td>EXAA</td>
<td>Austria</td>
</tr>
<tr>
<td><img src="logo_IBEX.png" alt="IBEX" /></td>
<td>IBEX</td>
<td>Bulgaria</td>
</tr>
<tr>
<td><img src="logo_Cropex.png" alt="Cropex" /></td>
<td>Cropex</td>
<td>Croatia</td>
</tr>
<tr>
<td><img src="logo_HOPS.png" alt="HOPS" /></td>
<td>HOPS</td>
<td>Croatia</td>
</tr>
<tr>
<td><img src="logo_OTE.png" alt="OTE" /></td>
<td>OTE</td>
<td>Czech Rep.</td>
</tr>
<tr>
<td>![Elering AS](logo_Elering AS.png)</td>
<td>Elering AS</td>
<td>Estonia</td>
</tr>
<tr>
<td><img src="logo_IPTO.png" alt="IPTO" /></td>
<td>IPTO</td>
<td>Greece</td>
</tr>
<tr>
<td><img src="logo_Lagie.png" alt="Lagie" /></td>
<td>Lagie</td>
<td>Greece</td>
</tr>
<tr>
<td><img src="logo_HUPX.png" alt="HUPX" /></td>
<td>HUPX</td>
<td>Hungary</td>
</tr>
<tr>
<td><img src="logo_MAVIR.png" alt="MAVIR" /></td>
<td>MAVIR</td>
<td>Hungary</td>
</tr>
<tr>
<td><img src="logo_Eirgrid.png" alt="Eirgrid" /></td>
<td>Eirgrid</td>
<td>Ireland</td>
</tr>
<tr>
<td><img src="logo_AST.png" alt="AST" /></td>
<td>AST</td>
<td>Latvia</td>
</tr>
<tr>
<td><img src="logo_Litgrid.png" alt="Litgrid" /></td>
<td>Litgrid</td>
<td>Lithuania</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Logo</th>
<th>Company</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="logo_TGE.png" alt="TGE" /></td>
<td>TGE</td>
<td>Poland</td>
</tr>
<tr>
<td><img src="logo_PSE.png" alt="PSE" /></td>
<td>PSE</td>
<td>Poland</td>
</tr>
<tr>
<td><img src="logo_REN.png" alt="REN" /></td>
<td>REN</td>
<td>Portugal</td>
</tr>
<tr>
<td><img src="logo.OPCOM.png" alt="OPCOM" /></td>
<td>OPCOM</td>
<td>Romania</td>
</tr>
<tr>
<td><img src="logo.Transelectrica.png" alt="Transelectrica" /></td>
<td>Transelectrica</td>
<td>Romania</td>
</tr>
<tr>
<td><img src="logo_OKTE.png" alt="OKTE" /></td>
<td>OKTE</td>
<td>Slovakia</td>
</tr>
<tr>
<td><img src="logo.BSP.png" alt="BSP" /></td>
<td>BSP</td>
<td>Slovenia</td>
</tr>
<tr>
<td><img src="logo.ELES.png" alt="ELES" /></td>
<td>ELES</td>
<td>Slovenia</td>
</tr>
<tr>
<td><img src="logo.EMS.png" alt="EMS" /></td>
<td>EMS</td>
<td>Serbia</td>
</tr>
<tr>
<td><img src="logo.Seepex.png" alt="Seepex" /></td>
<td>Seepex</td>
<td>Serbia</td>
</tr>
<tr>
<td><img src="logo.CEPS.png" alt="CEPS" /></td>
<td>CEPS</td>
<td>Czech Rep.</td>
</tr>
<tr>
<td><img src="logo.Sepsas.png" alt="Sepsas" /></td>
<td>Sepsas</td>
<td>Slovakia</td>
</tr>
</tbody>
</table>

*Not actively involved*
4. Emerging risks

There are a number of emerging risks with potentially significant impacts:

- **The multi-NEMO situation in LIPs**: this is bringing additional complexity from a technical (shipping arrangements) perspective as shipping arrangements need to be decided upon asap in order to meet the go-live target. Depending on the shipping arrangement decided for this may impact the development to be made by shippers and TSOs and this may potentially impact the timeline.

- **Cost sharing and cost recovery perspectives of LIPs and LTS development costs**: To be agreed based on CACM

- **The changing organisation of the NRAs**: risk for not providing timely answers to the project on cost recovery for additional costs (see previous slides).
5. Summary

- The project has moved from the Development Phase to Testing
- The results from the first testing phases are positive
- **Hosting contract negotiations closed the points foreseen to be closed during the Negotiations on 14\textsuperscript{th} & 15\textsuperscript{th} June.** Legal review on 23\textsuperscript{rd} June closed all points except one.
- Go-live is still planned to be within Q3 2017 although the first LIP ‘go-live’ will be 9 weeks later than originally planned due to the late start of 3\textsuperscript{rd} party support
- All LIPs are mobilised and go-live scenarios are under investigation. The EC have confirmed that XBID is considered the basis for the pan-European solution
- There remains a lot of work and activity to be completed in an environment complexified by the implementation of CACM provisions (multiple NEMOs, cost sharing /recovery principles)
- **We all continue to invest extensively to deliver a successful XBID Go-Live in Q3 2017 and are depending on the support of our stakeholders to achieve this**
Follow Ups from 3rd User Group meeting (26/01/16) – 1/2

• Topics we promised to come back on:
  – Technical explanation why the current XBID solution cannot handle PTDFs
    *Status: Completed – message sent to User Group 19/02/2016*
  – Have at the next meeting (next UG or ESC) information what does it mean that REE, REN and Terna (and role of NG) are not members of XBID and how will this impact the XBID project.
    *Status: Updates provided by Italian Borders LIP today. National Grid representative also present: John Twomey, Commercial, System Operator*

• Topics for next User Group (June 2016)
  – Performance figures – *On agenda*
  – Review progress on LIPs plan – confirm that LIPs are on track – *On agenda*
  – Proposal on LIP’s go-live roadmap – *On agenda*
  – XBID project/LIPs to ask Market Parties questions – *Throughout day*
  – Products, order types, etc. supported by XBID/implemented by the LIPs – *Initial overview presentation on agenda*
Follow Ups from 3rd User Group meeting (26/01/16) – 2/2

Feedback from User Group that was communicated to the relevant parties:

• Users requested that NL/DE parties look into implementing implicit allocation (M7/DBAG24) at this border, as this will be available as of September 2016 for borders FR/BE and BE/NL (quick win) and is in place at DE/FR already.
  
  Status: Given the fact that XBID is expected in 2017-Q3 and that the requested implicit allocation will be available from that moment, it is not efficient to set-up another parallel project which will only deliver shortly before the final solution. Such DE-NL quick-win has to be done with same set of involved experts, who then need to spend their precious time, attention and budget on something only in place for a limited period. This also creates extra delivery risks for the primary goal of XBID delivery 2017-Q3. This is overall considered as non-desired for a solution that will only be there temporarily, for limited time period.

• Quick wins: Implement something that is ready before XBID go-live immediately and not wait for XBID go-live (i.e. change of gate closure)
  
  Status: This message was circulated to TSOs and PXs

• All LIPs: Provide a so called “Communication package”:
  – To communicate as soon as possible IT-system changes to the MP to allow them to adapt their IT
  – Info on member’s testing, planned user information meetings, products that will change, etc.

  Status: Point noted by all NEMOs and TSOs and being included in NEMO planning

• Request that REE, REN and Terna join the next UG meeting

  Status: Opportunity provided to join the meeting, but parties have declined
Agenda

2. Project Status Overview and follow ups from last UG meeting

3. Implementation of the XBID Solution

4. Go-live scenarios

5. LIPs – general status overview

6. LIPs individual status and progress reports

7. Closing remarks, reflections on the day
Overview of NEMOs per Bidding Zone
Timeline to define XBID products

Brussels, 29/06/2016
Martin Vančura
1. Process of product definition

- **BBP:** Development
  - (Functional and user acceptance test)
  - Go-Live preparation

- **XBID Project:** Initiation of the XBID internal discussion on the Products to be adopted for the Go-live
  - All NEMO definition of the Products as requested in CACM
  - Implications on XBID Products
  - Analysis of implications

- CACM
  - Draft of the list of the Products to be reflected by LIPs
  - Implications on XBID Products

- Product attributes finalized and reflected in the Project documentation
  - Definition of the Product limitations due to LTSs

- CACM Analysis of implications
  - Implications on XBID Products
  - Draft of the list of the Products to be reflected by LIPs

- Definition of the Product limitations due to LTSs
1. Process of product definition

Definition of all relevant product attributes framed in the Business Blueprint – DFS700

- DFS700 Reference Data Module covers the behaviour of the Reference Data System including Products, e.g.
- Hourly products, 30 min products, 15 min products
  - These 3 products are expected to be set up to generate predefined contracts throughout the entire day as a continuous market
- Technically other products can be setup (e.g.: 1, 8, 16 minutes), as well as the generation of the contracts also do not follow a full 24 hour period or full week.

For details see back-up slides
1. Process of product definition

XBID System supports a wide range of product attributes combinations. Not all combinations are feasible for Local Trading Solutions. Final selection of the products needs to reflect restrictions specified by LTSs.
1. Process of product definition

Pre-selected Products need to be reflected in the LIPs, including relevant tests in order to validate all processes related to the Products and Contracts.

**Product** – The basic framework used to generate *Instruments* within the *Trading Module*.

**Contract** - The delivery unit of a commodity with a specific *Delivery Period*. A *Contract* is an instance of a *Product*. 
1. Process of product definition

XBID does not cover all NEMOs and therefore there is a parallel process with all NEMOs, reflecting CACM. This process may result into definition of the future requirements which would be further analysed in XBID Project.
2. Current status and ongoing activities

Start of activity:

- Summary report with regard to product set-up and potential impact on LTSs and proposal for next steps on technical options (and limitations) which need to be assessed.
- The approach of the report to be consulted with DBAG.
- As a result of the elaboration, examples of the messages for the Trading Solutions as well as business description of the messages.

Preliminary agreement:

- 30.5. 2016 - Preliminary summary report of tested products
- 13.6. 2016 - Final summary report of tested products
- PXs to propose default values for products attributes in agreed structure.

Delayed by couple of weeks due to finalization of hosting negotiation
3. Restrictions for product definition

• Validation of products that have been set up in the system is essential. This validation of products is required in order to conclude if the products set up in the SOB GUI functions are in accordance with anticipated products and if it is technically feasible to receive them in the LTS via the SOB PMI interface.
  ➢ Only successfully validated products will be incorporated into a summary report to PB.
  ➢ No successfully validated products will be excluded.

• Agreement on a set of “default” values to be used when setting up products is important. These “default” values should be applied for two reasons:
  1. To avoid setup of products that will not work in practice.
     - an example - users are allowed to set up products in the system that are not activated before contract delivery has started, which of course makes no sense at all. Reference data admin should perform it with utmost care.
  2. To keep to approved standard values. As an example MW as quantity, EURO as units, etc.
Back-up
## Product attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>Product name is used in the Public Messaging Interface for importing orders via ComTrader. This value must be unique.</td>
</tr>
<tr>
<td>Product Display Name</td>
<td>Used to display the product in various front end applications (ComTrader, Admin WebGUI).</td>
</tr>
<tr>
<td>Product Activation Date and Time</td>
<td>Defines a point of time, at which the product will be automatically activated. At this time the contracts will be generated. (UTC)</td>
</tr>
<tr>
<td>Trading Unit</td>
<td>The trading unit of the quantity (e.g. MWh, kWh).</td>
</tr>
<tr>
<td>Trading Currency</td>
<td>Trading Currency for the product.</td>
</tr>
<tr>
<td>Minimum Quantity</td>
<td>Minimum Quantity allowed for contracts of the product.</td>
</tr>
<tr>
<td>Maximum Quantity</td>
<td>Maximum Quantity allowed for contracts of the product.</td>
</tr>
<tr>
<td>Minimum Price</td>
<td>Minimum Price allowed for contracts of the product.</td>
</tr>
<tr>
<td>Maximum Price</td>
<td>Maximum Price allowed for contracts of the product.</td>
</tr>
<tr>
<td>Decimal Shift (Quantity)</td>
<td>Decimal Shift (Quantity) for the product. This will be used to specify the number of decimal places that will be taken into consideration for this product’s quantity field. E.g. A value of 4 will allow quantity with up to 4 places of decimal precision.</td>
</tr>
<tr>
<td>Decimal Shift (Price)</td>
<td>Decimal Shift (Price) for the new product. This will be used to specify the number of decimal places that will be taken into consideration for this product’s price field. E.g. A value of 4 will allow prices with up to 4 places of decimal precision.</td>
</tr>
</tbody>
</table>
### Product attributes – cont.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceberg Orders</td>
<td>If Iceberg Orders are allowed for the product</td>
</tr>
<tr>
<td>Minimum Peak Size of Iceberg Orders</td>
<td>Minimum peak size of Iceberg orders which are allowed to be entered for contracts of this product (If Iceberg orders are to be allowed).</td>
</tr>
<tr>
<td>Peak Price Delta Range of Iceberg Orders</td>
<td>Peak Price Delta Range of Iceberg Orders which are allowed to be entered for contracts of this product (If Iceberg Orders are to be allowed).</td>
</tr>
<tr>
<td>Block Orders</td>
<td>If Block Orders are allowed for the product.</td>
</tr>
<tr>
<td>DST block products</td>
<td>Whether DST block products are enabled; if this is enabled, the extra hour (Extended hour: 02A-02B &amp; 02B-03 as against 02-03) will be coupled with the preceding hour and treated as block hour with the same volume and quantity as contained in one hour. If the value is applied for the product it is automatically applied for all DAs where this product is registered.</td>
</tr>
<tr>
<td>Contract Name Template</td>
<td>Defines the long name and the short name pattern for contracts generated</td>
</tr>
<tr>
<td>Total number of contracts to be generated for the product before the trading commences</td>
<td>Number of contracts generated by the system. Tradability is defined by the schedule.</td>
</tr>
<tr>
<td>Gap between Contracts</td>
<td>Time period specifying the Gap between Contracts.</td>
</tr>
<tr>
<td>Reference Start of Delivery</td>
<td>The reference date for the contract calculation</td>
</tr>
<tr>
<td>Delivery Period</td>
<td>Delivery period of the product</td>
</tr>
<tr>
<td>Contract Activation Point</td>
<td>Rule to be followed to determine the contract activation point for the product</td>
</tr>
<tr>
<td>Activation Day</td>
<td>The days the user needs the contracts to be generated for</td>
</tr>
<tr>
<td>Contract Expiry Point</td>
<td>Rule to be followed to determine the contract expiry for the product</td>
</tr>
<tr>
<td>Delivery Area</td>
<td>Delivery Areas assigned to the product</td>
</tr>
</tbody>
</table>
Agenda

2. Project Status Overview and follow ups from last UG meeting
3. Implementation of the XBID Solution
4. Go-live scenarios
5. LIPs – general status overview
6. LIPs individual status and progress reports
7. Closing remarks, reflections on the day
Go-live options

<table>
<thead>
<tr>
<th>#</th>
<th>Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All willing and ready parties simultaneously</td>
<td>The parties willing to join a first simultaneous go-live would sign up for this and need to pass agreed go-live criteria and milestones.</td>
</tr>
<tr>
<td>2</td>
<td>Cluster-wise</td>
<td>Clusters of borders and parties that go-live together would be identified. These clusters would be given a slot in the go-live sequence.</td>
</tr>
<tr>
<td>3</td>
<td>LIP-by-LIP</td>
<td>As LIPs are identified only a order of go-live needs to be determined.</td>
</tr>
<tr>
<td>4</td>
<td>Border-by-border</td>
<td>In this scenario each border goes live separately over a longer period of time. One border per day or week or similar.</td>
</tr>
</tbody>
</table>

Aim at simultaneous go-live:
- Capacity for borders between TSOs that go-live would be given to XBID instead of to existing mechanisms
- NEMOs participating would enter their intra-day orders to the "Shared Order Book"
- XBID performs implicit (and explicit – in case of NRA approval) allocation for these borders and matches the orders in the "Shared Order Book"

Readiness of LIP’s to be monitored
Requirements to be fulfilled by LIP’s to be part of XBID go-live

• LIP responsibility to ensure to be ready for go-live – XBID project will only monitor
• Readiness for go-live means to fulfil certain criteria
• Official confirmation (at SC level) shortly before go-live to be ready for go-live on:
  – **Operational team readiness in accordance with the regional/local and XBID procedures** → this means for example that the local teams had operational trainings etc.; this is a formal statement on operational readiness but it is the responsibility of the LIPs to take care of this and confirm readiness
  – **All regulatory requirements fulfilled and regulatory approval(s) received** → this may include stakeholder involvement (i.e. market parties informed)
  – **All required regional/local arrangements established, or, when and where applicable, regional/local contracts signed** → for example bilateral operational agreements, shipping contracts, PXs clearing contracts, this may also include stakeholder involvement
  – **All relevant market participants were informed about the foreseen changes** → for example via user forums, user groups, this includes that market participants were given sufficient time to make necessary changes to IT systems, procedures at their side
  – **System readiness:**
    • All LIP tests as defined in the approved LIP test list have been successfully tested → to be defined what exactly is meant when LIP testing is further specified
    • Outstanding defects in LIP’s systems detected and delivery dates for fixing them agreed (to be defined further once go-live strategy is clear)
  – **Local procedures between parties agreed** in line with XBID procedures
  – **Overall assessment for Go- Live** (ready/not ready - official confirmation at SC level)
Agenda

2. Project Status Overview and follow ups from last UG meeting
3. Implementation of the XBID Solution
4. Go-live scenarios
5. LIPs – general status overview
6. LIPs individual status and progress reports
7. Closing remarks, reflections on the day
## Overview LIPs

<table>
<thead>
<tr>
<th>LIP</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordic</td>
<td>Fingrid, EnDK, SvK, Statnett, Nord Pool, EPEX</td>
</tr>
<tr>
<td>DK2/DE (Kontek)</td>
<td>EnDK, 50Hz, Nord Pool, EPEX</td>
</tr>
<tr>
<td>DK1/DE, DE/NL</td>
<td>EnDK, TenneT NL&amp; DE, Amprion, EPEX, APX/Belpex, Nord Pool</td>
</tr>
<tr>
<td>NorNed</td>
<td>Statnett, TenneT NL, APX/Belpex, Nord Pool</td>
</tr>
<tr>
<td>FR/DE, CH/ DE, CH/FR, DE/AT</td>
<td>Amprion, TransnetBW, APG, RTE, Swissgrid, EPEX, Nord Pool, Tennet DE</td>
</tr>
<tr>
<td>NL/BE</td>
<td>Elia, TenneT NL, APX/Belpex</td>
</tr>
<tr>
<td>BritNed</td>
<td>BDL, NG, TenneT NL, APX</td>
</tr>
<tr>
<td>FR/BE</td>
<td>RTE, Elia, APX/Belpex, EPEX</td>
</tr>
<tr>
<td>FR/ES&amp; ES/PT</td>
<td>RTE, EPEX, OMIE, REE, REN</td>
</tr>
<tr>
<td>IFA</td>
<td>RTE, NG, Nord Pool, EPEX</td>
</tr>
<tr>
<td>AT/CH</td>
<td>APG, Swissgrid, EPEX</td>
</tr>
</tbody>
</table>
Newly established LIPs since last UG meeting

<table>
<thead>
<tr>
<th>LIP</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Baltic</td>
</tr>
<tr>
<td></td>
<td>Elering, Litgrid, AST, Fingrid (Estlink only)</td>
</tr>
<tr>
<td></td>
<td>Svenska Kraftnät (NordBalt only), Nord Pool</td>
</tr>
<tr>
<td>B</td>
<td>INB</td>
</tr>
<tr>
<td></td>
<td>ADMIE, APG, ELES, RTE, Swisgrid, Terna, BSP, EPEX, EXAA, GME, LAGIE, Nord Pool</td>
</tr>
</tbody>
</table>
Impact Analysis – details

All LIPs expect changes

• **Technical changes:**
  – all LIPs expect major or medium technical changes to diverse TSO and PXs systems: TSO IT systems, PX’s LTS and shipper systems need to be adapted

• **Operational changes:**
  – Except for LIP 7 (major) all LIPs expect medium to minor changes.
  – Some LIPs (LIP 5, 9&12, 11) still need to analyse what operational changes will be required

• **Contractual changes:** Except for LIP 11 (major) all LIPs expect medium to minor changes

• **Regulatory approval** required in all of the LIPs (except for LIP 5 where this is still unknown). For the regulatory approval process an average lead time of 6-9 month can be expected.
## Status organisational set-up of LIP projects

Progress: answers marked with * have changed their status from “No” to “Yes” compared to first inquiry made for IG meeting on 25/11/2015

<table>
<thead>
<tr>
<th>LIP No</th>
<th>Countries involved</th>
<th>The project…</th>
<th>has already started?</th>
<th>has a governance structure?</th>
<th>has a finalized top-level planning?</th>
<th>has agreed milestones?</th>
<th>has agreed on deliverables?</th>
<th>has agreed responsibilities amongst all parties?</th>
<th>has a budget?</th>
<th>has approved cost sharing and cost recovery principles according to CACM?</th>
<th>is in line with the budget?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DK-FI-NO-SE</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes*</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>DE-DK (Kontek)</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes*</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>DE-DK-NL</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>NL-NO</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes*</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>AT-CH-DE-FR</td>
<td></td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>BE-NL</td>
<td></td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes*</td>
<td>Yes*</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>NL-UK (BritNed)</td>
<td></td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes*</td>
<td>Yes*</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>BE-FR</td>
<td></td>
<td>Yes</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>9&amp;12</td>
<td>ES-FR-PT</td>
<td></td>
<td>Yes</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>FR-UK (IFA)</td>
<td></td>
<td>Yes</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>AT-CH</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

1 Question was split in two questions to distinguish
• that a budget for the project has been provided by the PX(s) and any other relevant parties and agreed within the LIP. This does NOT necessarily mean that final decision on cost-sharing and cost recovery according to CACM has been taken.
• The cost sharing principles and cost recovery principles have been agreed within the project and are approved by NRAs where relevant.
Indication of borders planning to offer explicit access to capacity

Legend

X  No explicit access will be offered
X  Consultation of NRAs is ongoing
✓  Explicit access planned to be offered by TSO (subject to NRA approval)
?  No decision taken yet
LIP Testing

• XBID projects test the XBID solution (CMM, SOB, SM) whereas it is the responsibility of LIPs to organise for the end-to-end testing (i.e. pre-coupling and post-coupling)

• Progress since last UG meeting:
  – High-level LIP testing requirement collected and high level testing framework agreed (i.e. LIP testing time slots, environment, type of support, etc.)
  – High-level principles for cost sharing and reimbursement for LIP testing agreed between XBID parties
  – LIP Testing Coordinator under contracting and started to on-board

• Next steps:
  – Agreement with DBAG on LIP testing support and infrastructure
  – Elaboration of detailed test plan:
    • LIPs to test in a coordinated approach in parallel to XBID testing
    • Involvement of market participants to be decided upon and arranged for
Agenda
2. Project Status Overview and follow ups from last UG meeting
3. Implementation of the XBID Solution
4. Go-live scenarios
5. LIPs – general status overview
6. LIPs individual status and progress reports
7. Closing remarks, reflections on the day
7. LIPs individual status and progress reports
   a) LIP Baltic
   b) LIP at Northern Italian Borders
   c) LIP 7 and LIP 10
   d) LIP 1
   e) LIP 2
   f) LIP 3
   g) LIP 4
   h) LIP 5&11
   i) LIP 6
   j) LIP 8
Baltic LIP

User Group Meeting

Brussels: 29th of June 2016
Igor Honhoff
Content

1. Introduction to the XBID Baltic LIP
2. Project set-up and plan
3. Impact for the market parties
4. Questions/Answers
1. Introduction to the XBID Baltic LIP

Participants

- Elering
- Litgrid
- AST
- Fingrid (Level of involvement TBD)
- Svenska Kraftnät (Level of involvement TBD)
- Nord Pool
  Spoc Marja Eronen

Scope and goals

Implement XBID for the Baltic areas and internal & external interconnectors:

- 3 areas
- 4 interconnectors
2. Project set-up and plan

Deliverables:

- **Shipping agreements**
  Shipping agreements to be put in place for each interconnector in scope

- **Procedures**
  Adaptations of XBID procedures and local procedures to be compatible with XBID

- **High Level architecture**
  Including all the solutions from all parties involved in the intraday procedures and the sequence diagrams between these systems

- **Integrated XBID compliant Intraday solution**
  Validated through the successful execution of end-to-end test cases

- **Intraday Operational Agreement**
  A single agreement between all involved parties to go in to effect on go-live
3. Impact for the market parties

Market parties will through the shared orderbook gain access to all intraday liquidity at the PXs implementing the XBID solution.

Market party facing changes are expected to be minor and will be communicated in due time.

Market parties  Nord Pool  Baltic TSOs
4. Questions/Answers
7. LIPs individual status and progress reports
a) LIP Baltic
b) LIP at Northern Italian Borders
c) LIP 7 and LIP 10
d) LIP 1
e) LIP 2
f) LIP 3
g) LIP 4
h) LIP 5&11
i) LIP 6
j) LIP 8
LIP on Italian Northern Borders (INB)

- Borders covered
  - FR-IT, CH-IT, AT-IT, SI-IT; and additionally AT-SI

- TSOs
  - ADMIE, APG, ELES, RTE, SWISSGRID, Terna

- NEMOs
  - BSP, EPEXSPOT, EXAA, GME, LAGIE, NORD POOL
INB: Background and outlook

- At Florence Forum in March 2016 project parties announced willingness to launch LIP on Italian Northern Borders

- Parties are currently setting up the project organisational and contractual arrangements to start the design phase

- Project scope
  - To prepare and execute a LIP to implement the European target solution Continuous Trading via XBID
  - To design complimentary implicit intraday auctions to be implemented on regional basis

- Initial high level timeline
  - 2016-2017 aims at developing the allocation solution and consultation
  - 2017+ will deal with the regional implementation
7. LIPs individual status and progress reports

a) LIP Baltic

b) LIP at Northern Italian Borders

c) LIP 7 and LIP 10

d) LIP 1

e) LIP 2

f) LIP 3

g) LIP 4

h) LIP 5 & 11

i) LIP 6

j) LIP 8
LIP 7 & LIP 10
BritNed Interconnector & IFA Interconnector

➢ XBID Market User Group Meeting
  29th June 2016

Yvonne Visser, Commercial Director, BritNed
Jakub Pilecky, Commercial Analyst, BritNed
Andy Paton, Commercial Manager, National Grid Interconnectors
Agenda

- Development & Implementation Strategy for Channel Interconnectors
- Introduction new Regional (Nomination) Platform
Development & Implementation Strategy

- Channel Interconnectors IFA, BritNed (and Nemo Link) have jointly:
  - Revisited the Compliance Strategy for CACM / FCA Guidelines,
  - Also given current challenges in XBID Market Project (Losses / capacity pricing mechanism)

- Developed a joint proposal for efficient implementation for Channel Interconnectors.

- The proposal suggests a Joint Development of new Regional (Nomination) Platform for Channel Interconnectors with strong focus on:
  - Scalability (BritNed and IFA, but also all other IC’s like Nemo Link)
  - Cost Efficient Implementation and Production
  - Benefits to Market Parties, harmonisation, one point of contact
Development & Implementation Strategy

- The proposal has been presented to the NRA’s (UK, FR, NL) and was well received.

- Implications of New Development Strategy for XBID:
  - BritNed and IFA will integrate XBID Market System in the RNP system and therefore not make necessary changes in current systems (Kingdom and CMS) which are approaching end of life.
  - RNP and XBID Market system will be integrated in 2018. BritNed and IFA will as a consequence not join XBID at expected Go-Live in Q3 2017;
  - BritNed and IFA will remain active in XBID Market Project
    - to guarantee a smooth transition
    - to actively support (temporary or permanent) solutions for Losses and Capacity Pricing
    - to Channel Region members to resolve challenges of Coordinated Capacity Calculator requirement.
Regional (Nomination) Platform

The RNP will lead to:

- Economies of scale: one platform across the region for nomination and interfacing requirements;
- Market benefits: providing one point of contact for interconnector participants; encouraging wider market participation and harmonisation;
- Collaboration: regional collaboration encourages further collective working in the future.

Indicative phasing of the RNP project:
Questions?

Thank you for your attention.
7. LIPs individual status and progress reports
   a) LIP Baltic
   b) LIP at Northern Italian Borders
   c) LIP 7 and LIP 10
   d) LIP 1
   e) LIP 2
   f) LIP 3
   g) LIP 4
   h) LIP 5&11
   i) LIP 6
   j) LIP 8
LIP 1: Nordic LIP

User Group Meeting

Brussels: 29th of June 2016
Igor Honhoff
Content

1. Introduction to the XBID Nordic LIP
2. Current Status of the Project with Timeline
3. Impact for the market parties
4. Questions/Answers
1. Introduction to the XBID Nordic LIP

**Participants**
- Statnett
- Energinet.DK
- Fingrid
- Svenska Kraftnät
- Nord Pool
- Epex Spot
- Spoc Marja Eronen

**Scope and goals**

*Implement* XBID for all Nordic interconnectors and areas:
- 4 countries
- 12 scheduling areas
- 23 interconnectors

*Go-Live* at the same time as XBID
2. Current Status of the Project with Timeline

Status of local development and testing:

<table>
<thead>
<tr>
<th>Party</th>
<th>Development</th>
<th>Testing</th>
<th>Readiness for IAT (08/2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statnett</td>
<td>Done</td>
<td>Done</td>
<td>Ready</td>
</tr>
<tr>
<td>Energinet.DK</td>
<td>On Schedule</td>
<td>On Schedule</td>
<td>Will be ready</td>
</tr>
<tr>
<td>Svenska Kraftnät</td>
<td>On Schedule</td>
<td>On Schedule</td>
<td>Will be ready</td>
</tr>
<tr>
<td>Fingrid</td>
<td>On Schedule</td>
<td>On Schedule</td>
<td>On Schedule</td>
</tr>
<tr>
<td>TSO’s NOIS</td>
<td>On Schedule</td>
<td>On Schedule</td>
<td>Will be ready</td>
</tr>
<tr>
<td>Nord Pool</td>
<td>On Schedule</td>
<td>On Schedule</td>
<td>Will be ready</td>
</tr>
<tr>
<td>Epex Spot</td>
<td>On Schedule</td>
<td>On Schedule</td>
<td>On Schedule</td>
</tr>
</tbody>
</table>

Pre connectivity
- Pre connectivity tests against Xbid by TSO systems are planned to start on middle of July 2016.

The test plan has been created and the writing of scenarios are ongoing:
- Expected to be ready by end of August 2016.

Local procedures have been identified and specified with exception:
- Shipping and Nomination arrangement and procedures are pending, TSOs need to agree solution.

Nord Pool and EPEX market rules will be subject to review due to XBID implementation:
- Not Started

Intraday operational agreement to be prepared:
- Not Started
3. Impact and changes for the market parties

Market parties will through the shared orderbook gain access to all intraday liquidity at the PXs implementing the XBID solution.

Market party facing changes are expected to be minor and will be communicated in due time.

*Market parties will be invited to member testing by the Nordic LIP to ensure compatibility between all parties prior to go-live: Member tests estimated to be run in Q2/2017*
4. Questions/Answers
7. LIPs individual status and progress reports
a) LIP Baltic
b) LIP at Northern Italian Borders
c) LIP 7 and LIP 10
d) LIP 1
e) LIP 2
f) LIP 3
g) LIP 4
h) LIP 5&11
i) LIP 6
j) LIP 8
Kontek LIP

Katja Birr-Pedersen (Energinet.dk)
Overview Kontek LIP

**Geographical scope**
- HVDC cable (600 MW excl. losses) between Denmark (DK2) and Germany (DE/AT) Bidding-Zones

**Existing ID solution in the area**
- Elbas: Operated by NordPool Spot
  - Continuous market with Gate opening at 14:00 at D-1 and Gate closure at H-60min

**Involved parties (TSO/PXs) in the project**
- TSOs (50Hertz & Energinet.dk)
- CCPs (Nord Pool & ECC (EPEX Spot))
- Nord Pool as project manager

**Foreseen type of allocation**
- Implicit only (as today in day-ahead and intraday)
Foreseen changes

**Systems**
- Kontek intraday capacity is provided to XBID CMM instead of ELBAS and is thus accessible for whole NWE+ intraday market => only minor changes on TSO side
- Possibility for more then one LTS operating on both sides of the interconnector => competition between different intraday trading platforms
- LTS’s need to be adjusted to be able to connect to XBID SOB => major changes

**Rules and Contracts**
- TSO – Shipping Agent (CCP/s) Agreement
- CCPs financial clearing & settlement agreement
- Market rules will not be changed in light of XBID go-live

**Regulatory approvals**
- Regulatory approvals will only be relevant for local implementation. No market relevant changes (Elbas → XBID) foreseen (i.e. no consultation needed).
## Timeplan towards go-live

### XBID Market
- **BBP (ESA Step 2 Phase 2)**
- Development incl. IAT, FAT
- Testing (User acceptance test)
- Go-Live period

<table>
<thead>
<tr>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr</td>
<td>Apr</td>
<td>Jul</td>
</tr>
</tbody>
</table>

#### PROJECT GOVERNANCE
- Governance structure
- Top-level planning
- Agreed milestones
- Agreed deliverables
- Agreed responsibilities
- LIP cost sharing & cost recovery discussions ongoing on central XBID level

#### TSO/PX IT development & procedure adjustment
- ✔

#### Testing preparation
- **Local** ✔
- **LIP** ✔
- **XBID** ✔

#### Testing
- **Local**
- **LIP**
- **End-to-end**

#### Contract finalization: Shipping + Financial clearing

### Participation in 1. go-live of XBID
7. LIPs individual status and progress reports
a) LIP Baltic
b) LIP at Northern Italian Borders
c) LIP 7 and LIP 10
d) LIP 1
e) LIP 2
f) LIP 3
g) LIP 4
h) LIP 5&11
i) LIP 6
j) LIP 8
XBID LIP 3 – NL-DE-DK1

User Group Presentation

Brussels: 29th of June 2016
Katja Birr-Pedersen (Energinet.dk)
Agenda

1. Project governance
2. Local XBID Design
3. Planning
4. Takeaways
1. Project Governance – Vision, Objectives, Scope, Organization and deliverables are defined

✓ LIP3 Project Vision

- Facilitate the readiness of all involved parties to go-live in the XBID project in a transparent, efficient and non-discriminatory manner
- Project participants to NL-DE and DE-DK1 borders, will connect their systems in due time to the central modules developed by XBID project

✓ LIP3 Project Scope

- Intraday coupling of the electricity markets on two (2017), then 3 borders:
  - NL-DE Border
  - DE-DK1 Border
  - NL-DK Border (COBRA cable that should be commercially available per 2019-Q1)

✓ LIP3 Project Organization

- PM/PMO selected and onboard
- Internal working bodies up and running (WG / TEM /PEM)
- Project Parties:
  - TSOs: Tennet BV (NL), Tennet GmbH (DE), Amprion GmbH (DE ), Energinet.dk (DK)
  - PXs: EPEX SPOT (EU – EPEX), Nord Pool (EU – NP)

✓ LIP3 Project targeted Deliverables

- LIP3 deliverables defined in a Project Initiation Document and initiated throughout Expert Meetings

Conclusions:

- A stronger project governance has been established, which should support LIP3 timely go-live
2. Local XBID Design – LIP3 has defined working principles that enable to progress while awaiting final decisions on key design items

<table>
<thead>
<tr>
<th>Topic</th>
<th>Status</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit capacity</td>
<td>• Consultation of NL-DE-DK NRAs is ongoing</td>
<td>• Decisions on design items is necessary to finalize key deliverables</td>
</tr>
<tr>
<td>Shipping Arrangements</td>
<td>• No decision on LIP3 borders</td>
<td>• Yet LIP3 Members keep progressing on parts of deliverables (HLA, Sequence Diagrams, Procedures, Master Test Plan)</td>
</tr>
<tr>
<td>Rollback</td>
<td>• LIP3 alignment on Rollback concept (= AS-IS procedures)</td>
<td>• Discussion ongoing beyond LIP3 - process could impact planning</td>
</tr>
<tr>
<td></td>
<td>• HLA, &amp; procedures to be slightly adapted</td>
<td>• LIP3 key deliverables do not have to be adapted to a fallback scenario</td>
</tr>
<tr>
<td>Fallback</td>
<td>• Consultation of NRAs is ongoing to seek endorsement</td>
<td></td>
</tr>
</tbody>
</table>

Conclusions:

• Important design items are still being discussed in other forums and with NL-DE-DK NRAs
• To maintain its progress, LIP3 Steering Committee has defined working principles and resources are mobilized to move forward (WG and Expert Meetings)
3. Planning – LIP3 Parties plan to go-live in Q3 2017

**Legend**

<table>
<thead>
<tr>
<th>XBID Central Project</th>
<th>XBID LIP 3 Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>Structure Project Governance</td>
</tr>
<tr>
<td>Testing</td>
<td>Define local procedures</td>
</tr>
<tr>
<td>Go-Live</td>
<td>Develop &amp; implement XBID &amp; bilateral system adjustments</td>
</tr>
<tr>
<td></td>
<td>Prepare and Realize Local &amp; Bilateral testing</td>
</tr>
<tr>
<td></td>
<td>Realize LIP3 UAT</td>
</tr>
<tr>
<td></td>
<td>Final preparation &amp; Go Live</td>
</tr>
<tr>
<td></td>
<td>Get NRA approval where required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
</tbody>
</table>

**Conclusions:**

- LIP3 Planning definition is progressing as preparation and alignment is ongoing
- LIP3 Parties plan to go-live in Q3 2017, following the go-live approach to be defined in XBID
4. Takeaways – Key messages to User Group

1. LIP3 Parties have made strong commitments on local project governance. LIP3 Parties also actively contribute to XBID central project.

2. Important design decisions (Explicit allocation, Rollback, Fallback, etc.) are being tackled within LIP3 and in collaboration with NL-DE-DK NRAs. Delay in decision-making on design topics beyond LIP3 perimeter (e.g. shipping, cost recovery) represent a planning risk.

3. In current configuration, taking into account timely decision making on design topics, LIP3 Parties plan to go-live in Q3 2017.
7. LIPs individual status and progress reports
   a) LIP Baltic
   b) LIP at Northern Italian Borders
   c) LIP 7 and LIP 10
   d) LIP 1
   e) LIP 2
   f) LIP 3
   g) LIP 4
   h) LIP 5&11
   i) LIP 6
   j) LIP 8
LIP 4: NorNed

Usergroup Meeting

Brussels: 29th of June 2016
Content

1. Introduction of Project LIP 4: NorNed
2. High Level Project planning LIP 4
3. Current Status of the Project
4. Challenges
5. Questions/Answers
1. Introduction

• **Project name:** XBID NorNed LIP

• **Participants:**
  1. Statnett
  2. TenneT (NL)
  3. APX (EPEX)
  4. NordPool

  **SPOC:** Roelof de Vries (TenneT)

• **Objective:**
  Implementing XBID for the interconnector NorNed in line with the XBID timeline. Ready before Go-Live in Q3/2017.
2. High Level Project Planning LIP 4 V2.0

- Agreed Changes
- Project Preparations
- Requirement Development Phase
- Local activities
- Bilateral Testing
- XBID TESTING Preparation
- XBID TESTING Execution
- Go Live Prep
- Procedures (Draft)
- Modification of Procedures (Final)
- Contractual Agreements/Modifications
- UAT Start
- Start UAT (V)
- UAT Ready
- Go Live Prep Ready

△ XBID Alignment (v5.34)
3. Current Status of the Project

- High Level Architecture (HLA) for XBID NorNed agreed amongst project partners. Base line for implementation joint and local activities, excluding changes from shipping arrangements.

- On local level LIP Project is subdivided in two parts:
  A. Interfaces with XBID Platform (independent of LIP alignment). Development process in final stage at local level to be ready for IAT testing in XBID.
  B. Process related modifications (dependent of alignment between LIP parties).
     - Parties have agreed on the scope of changes.
     - Elaboration and execution of changes in progress at the local level.

- Parties have implementation and development teams active and modifying IT systems (development and testing) on the local level.

- Parties have assessed required modifications in procedures, which will be executed after summer holidays.

- Parties have assessed changes in existing operational contracts, which will be executed once the XBID project has agreed on the scope of the joint contract (IDOA).
4. Challenges

1. LIP testing
   - LIP 4 as other LIPS have to be facilitated in testing with the XBID platform. Therefore a joint LIP test environment has to be set up including coordination on the central project level.
   - Readiness of this environment is expected in January 2017 allowing the LIPS to test end-to-end until go-live.

2. Shipping arrangements
   - LIP 4 as other LIPs are facing uncertainty on the shipping arrangements, which is currently unclear and not in scope of the implementation project.
   - The shipping solution has to be compliant with CACM regulation. For LIP 4 no decisions have been taken.
5. Questions/Answers
7. LIPs individual status and progress reports
a) LIP Baltic
b) LIP at Northern Italian Borders
c) LIP 7 and LIP 10
d) LIP 1
e) LIP 2
f) LIP 3
g) LIP 4
h) LIP 5&11
i) LIP 6
j) LIP 8
XBID
Local Implementation Project
#5 (+11)
Austria-France-Germany-Switzerland
Jens Axmann
Overview

8 Participating Members

<table>
<thead>
<tr>
<th>Country</th>
<th>TSO</th>
<th>NEMO*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>APG</td>
<td>EPEX SPOT</td>
</tr>
<tr>
<td>France</td>
<td>RTE</td>
<td>Nord Pool Spot</td>
</tr>
<tr>
<td>Germany</td>
<td>Amprion TransnetBW</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>Swissgrid</td>
<td></td>
</tr>
</tbody>
</table>

* The list of NEMOs represents the participating NEMOs in the LIP and does not reflect the exact status of NEMO designation in the respective countries

Existing Intra-Day allocations:

- **LIP 5**: Implicit Continuous Allocation based on First Come First Served Principle, Obligatory usage, Implicit & Explicit, Hourly Products (all borders), 30 Min (CH-FR, FR-DE), 15 Min (CH-DE, DE-AT)

- **LIP 11 (CH-AT)**: Continuous explicit Allocation based on First Come First Served Principle

Target model:

- Implicit and explicit* Continuous allocation

* for first time of XBID in operation, NRA approval most likely
### Deliverables

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formalization</td>
<td>TORs have been agreed. Budget discussion postponed until cost structure has been agreed.</td>
<td></td>
</tr>
<tr>
<td>IT Concept</td>
<td>Technical specifications for local adaptation finalized with open issues regarding shipping processes.</td>
<td>31/03/2016</td>
</tr>
<tr>
<td>Local Adaptations</td>
<td>Adaptations of local systems is on-going. Testing with XBID is impacted by delays in XBID project.</td>
<td>= 31/12/2016</td>
</tr>
<tr>
<td>Shipping Approach</td>
<td>Shipping approach on hold due to discussions on multi NEMO arrangements outside XBID.</td>
<td>➔ 31/12/2016</td>
</tr>
<tr>
<td>Contracts</td>
<td>Need for LIP-specific operational arrangements will be assessed when XBID IDOA has been drafted.</td>
<td>31/12/2016</td>
</tr>
<tr>
<td>LIP Testing</td>
<td>Preparation of test-cases on hold, until shipping approach has been agreed. Execution of test-cases.</td>
<td>➔ 31/03/2017</td>
</tr>
<tr>
<td>LIP go live</td>
<td>Readiness for Go- Live</td>
<td>30/04/2017</td>
</tr>
</tbody>
</table>
Progress

• TORs have been agreed for Steering Committee (SC), Legal and Technical Workgroups. SC confirmed top-level planning.
• Adaptations of local systems are individually pursued by all parties based on agreed processes and assumptions regarding the shipping approach. LIP monitors the progress to ensure a coordinated approach for LIP testing.
• Multiple NEMO arrangements have been submitted to regulators. Depending on their feedback activities regarding shipper processes and shipping arrangements can be continued.
• Connectivity tests of TSOs to XBID have been postponed.
• XBID activities (except from SM FAT) are currently re-planned and timeline will be adjusted by 46 days.
• No further discussions on budget, until LIP cost structure has been agreed in XBID. NRAs communicated to the LIP 5 parties that they agree that in LIP 5 Explicit Access shall remain possible, as long as neither of the TSOs or PXs of LIP 5 raises concerns until the end of march 2016 about maintaining Explicit Access.
• XBID Project will define coordinated approach for LIP testing.
7. LIPs individual status and progress reports
a) LIP Baltic
b) LIP at Northern Italian Borders
c) LIP 7 and LIP 10
d) LIP 1
e) LIP 2
f) LIP 3
g) LIP 4
h) LIP 5&11
i) LIP 6
j) LIP 8
LIP 6 (BE-NL)

Tjitske Kramer

User Group Meeting
29 June 2016
LIP 6 BE – NL: Overview

- Parties involved in LIP6 are:
  - TSOs: TenneT NV & ELIA,
  - NEMO: APX/EPEX*

Up till now the LIP6 parties have primarily focused on the implementation of the QuickWin for this bidding zone border which Go-Live date is targeted for End September 2016.

However, when designing and developing the QuickWin, parties already take into account the target XBID Solution to assure that the work done for the QuickWin can be reused as much as possible for the implementation of the target XBID solution as such limited modification will be needed after the Go-Live of the QuickWin.

* Nord Pool is also a designated NEMO for this LIP however at the moment has not requested to become an active party in this LIP
LIP 6 BE – NL: Status update

- All design has been finalized except for the shipping solution.

- Parties have agreed on the High Level Architecture for the XBID implementation, except for the shipping solution.

- Internal development is ongoing and all parties plan to be ready by the time the LIP test environment will be ready. Currently foreseen in January 2016.

- The test scenarios and test cases established for the QuickWin can be re-used with only minor adaptations for the LIP 6 testing. Additional test cases especially with regards to the shipping module or new functionalities must still be added.

- All procedural changes (launched in the framework of the QuickWin) already take into account the common procedures for the XBID Solution.

- Regulatory and contractual work is ongoing.
LIP 6 BE – NL: Risks

• Shipping arrangements

➢ As for other bidding zone borders discussions on the shipping solution compliant with CACM regulation to be implemented for the LIP6 are ongoing but have not been finalized yet and hence no decisions have been taken.

➢ This results in an increased risk of delaying the testing of the shipping solution. Testing of the shipping module can only be completed if the entity that will perform the shipping is assigned.

➢ The reason for not having decisions taken is primarily the implementation of the CACM which has makes that the current shipping arrangements in place can not be used since they are not in line with the concept of multiple NEMOs.

• LIP testing

➢ In order to test all LIPS in combination with the XBID central modules, LIPS jointly need to set up a LIP test environment which allows LIPS to test individually and commonly the pre- and post processes.

➢ Readiness of this environment is expected in January 2017 allowing the parties to test the LIPS in this environment until go-live.
7. LIPs individual status and progress reports
   a) LIP Baltic
   b) LIP at Northern Italian Borders
   c) LIP 7 and LIP 10
   d) LIP 9&12
   e) LIP 1
   f) LIP 2
   g) LIP 3
   h) LIP 4
   i) LIP 5&11
   j) LIP 6
   k) LIP 8
Belgium – France Border

XBID Local Implementation Project 8
& « Quick Win » intermediary steps on ID market
Regional Overview & Roadmap

<table>
<thead>
<tr>
<th>Country</th>
<th>TSO</th>
<th>Designated NEMOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Elia</td>
<td>APX-Belpex-EPEX</td>
</tr>
<tr>
<td>France</td>
<td>RTE</td>
<td>Nord Pool</td>
</tr>
</tbody>
</table>

Until now, local projects are jointly managed by regional parties.
Nord Pool was designated NEMO in France in February 2016.
The designation of both NEMOs was published in Belgium 5 February 2016.
The transmission system operators, Elia in Belgium and RTE in France, launched the explicit Intraday cross-border capacity allocation through the « Intraday Capacity Service » (ICS) allocation platform on the bidding zone border Belgium-France starting from 22nd of March 2016 for first deliveries on 23th of March 2016.

Main improvements /modifications:
- First Come First Served Explicit Access using “Intraday Capacity Service” platform of DBAG
- Neutralisation time of 1 hour instead of 2 hours
- 24 gates instead of 12 gates
Quick win “step 2”: end September 2016

Main improvements:
- First Come First Served **Implicit** Allocation
- Due to the high similarity with the probable CACM target model (XBID) for Market Parties the implementation of this Quick Win will allow a more smooth implementation of XBID
- Adoption of M7/ICS, harmonisation with neighbour areas, coupling with EPEX Markets
# Scale of impact LIP

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Status</th>
<th>Content / changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical</strong></td>
<td>Ongoing (expected: medium)</td>
<td>Local Trading Solution (PXs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity Calculation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Allocation &amp; Scheduling Systems</td>
</tr>
<tr>
<td><strong>Operational</strong></td>
<td>Ongoing (minor – major modifications during QWs)</td>
<td>Implementation &amp; internal procedures</td>
</tr>
<tr>
<td><strong>Contractual</strong></td>
<td>Ongoing (expected: minor – major modifications during QWs)</td>
<td>Participation Agreements &amp; Operational Agreement</td>
</tr>
<tr>
<td><strong>Regulatory</strong></td>
<td>Ongoing (expected: minor)</td>
<td>Adaptation of IFB rules</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adaptation of Market rules</td>
</tr>
</tbody>
</table>

**Specific points:**
- Project’s scope will be modified (and eased) by the quick wins,
- Mandatory lead-time for approval will have to be anticipated.
- Market Parties will be informed as soon as possible by PXs & TSOs.
### Attention points

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed participation to LIP testing and testing with Market Parties has yet to be defined.</td>
<td>Timeline management.</td>
</tr>
<tr>
<td>Synchronisation with quick win implementation.</td>
<td>Non-selection of Shipping solution</td>
</tr>
<tr>
<td></td>
<td>Clear communication before the go-live.</td>
</tr>
</tbody>
</table>
High level Planning

- QW Step 2 will go live end September 2016
- LIP testing will start in January 2017
- GO-Live window for LIPS will start Q3 2017: LIP 8 is targeted to go live along with XBID Solution
Agenda

2. Project Status Overview and follow ups from last UG meeting
3. Implementation of the XBID Solution
4. Go-live scenarios
5. LIPs – general status overview
6. LIPs individual status and progress reports
7. Closing remarks, reflections on the day
Thank you very much for your attention!
A safe journey home......
Back-up
1. Background
Introduction

• Shipping solution to be agreed NOW in order to allow for making necessary adjustments to be ready before LIP testing starts (approx. Jan 2017)

• All existing intraday markets have a shipping solution but with CACM entry into force competition amongst NEMOs needs to be regarded and new shipping arrangements are required (there will be at least 2 NEMOs in a large number of bidding zones)

• How to solve the problem?
  – Continue with existing solutions → Competition issue
  – Tender for solution → Time issue, unique tender or regional tenders?
  – Preferred shipper → Harmonisation required? – Technical feasibility?
1. Background
Shipping solutions possible in current SM setup

Shipping arrangement = assignment of Shipping Agent (SA) to Interconnector (IC)
Each IC is linked to two Delivery Areas* (DA)
There is one IN- and one OUT-shipping agent per direction of an IC

- **Single shipper**
  - The same shipper exports and imports on one interconnector in both directions

- **Dual shipper**
  - The export and import shipper are different

- **Directional shipper**
  - The same shipper is always both exporting and importing shipper in one specific direction

- **Preferred shipper**
  - Each CCP has a preferred shipper. The preferred shipping agent of the selling PX is used when no other shipping arrangement is specified for an interconnector or a trade between two PXs in the same DA is performed.

*Delivery Area = scheduling area
Market Area (MA) = bidding zone