Minutes Exchange of Metered Data Project, February 15th and 16th 2016

Date: Thursday December 15th Friday December 16th
Time: 09:00 AM – 17.00 PM 09:00 AM – 15:00 PM
Place: Innogy (RWE), (meeting room has number: 1D12 and is called "Idar Oberstein")
Kruppstrasse 5,
Essen.

Appendix: Participants and observers
Hotel accommodation
Directions meeting location

Documents: Time-of-Use presentation provided by Thibaut
Draft skeleton for Supplier Centric Billing

1. **Opening**
   Eva opened the meeting

2. **Approval of agenda**
   Bertil Larsen was welcomed as the new member from Sweden (as successor to Lars Munter).

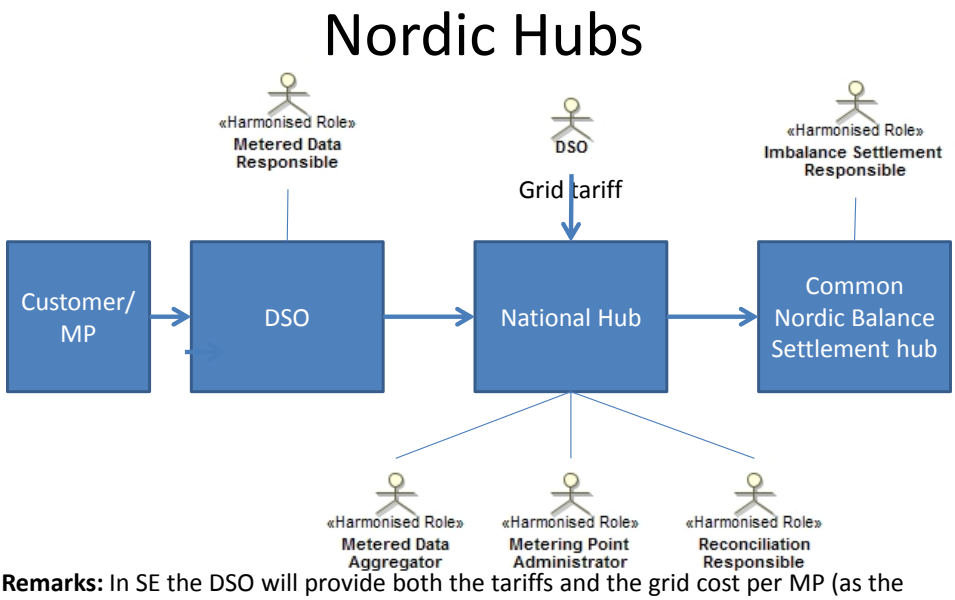
3. **Approval of the minutes meeting 42 in Hafslund, Norway**
   The minutes were approved.

4. **Action list**
   The action list was updated.

5. **Report**
   - 5.1. ebIX®
     - 5.1.1. ebIX® CuS
       Thibaut and Kees reported the present status of the CuS work.
     - 5.1.2. ebIX® ETC
       Thibaut and Kees reported the present status of the CuS work.
     - 5.1.3. ebIX® Forum (work plan EMD)
       Eva and Kees reported from the ebIX® Forum meeting in November 2016.
   - 5.2. status standardization:
     - 5.2.1. UN/CEFACT
       Kees reported the present status of the activities in UN/CEFACT.
     - 5.2.2. ebIX®-IEC trial project
       Kees reported the present status of the ebIX®-IEC trial project (mapping ebIX® BRS's to IEC CIM).
   - 5.3. National developments
     FI: supplier centric billing is being discussed and is a hot topic. No open metering market. A Finnish datahub has been planned for 2019.
     DE: open metering market consequences are being discussed and have to be implemented. Smart meter is required for those who want to switch to a third party metering responsible instead of the default metering responsible (linked to the grid company). At this stage, the metering responsible is also the responsible for the meter (asset). At the moment data security for smart meters is an issue. But privacy also remains a topic. The roll-out for smart meters has been planned, but no smart meter is available that fulfils all security requirements. Especially the possibility of switching off the connection by using this feature in the smart meter is worrisome for the whole grid infrastructure. Smart meter has to be changed every 8 years.

SE: With regard to data security a yearly review process is in place. Security focuses more on privacy aspects and not so much on system consequences. Direct meter (without transformer directly connected to the current) has to be checked every 6 years. There is no such rule for the smart meter. Although at the moment all meters are already smart. The smart meter has the capability of sending hourly values, but the regulation is still based on monthly volumes (for smaller MP's up to 63 Amp). Discussions have started regarding new requirements, but no decision has been reached on this.

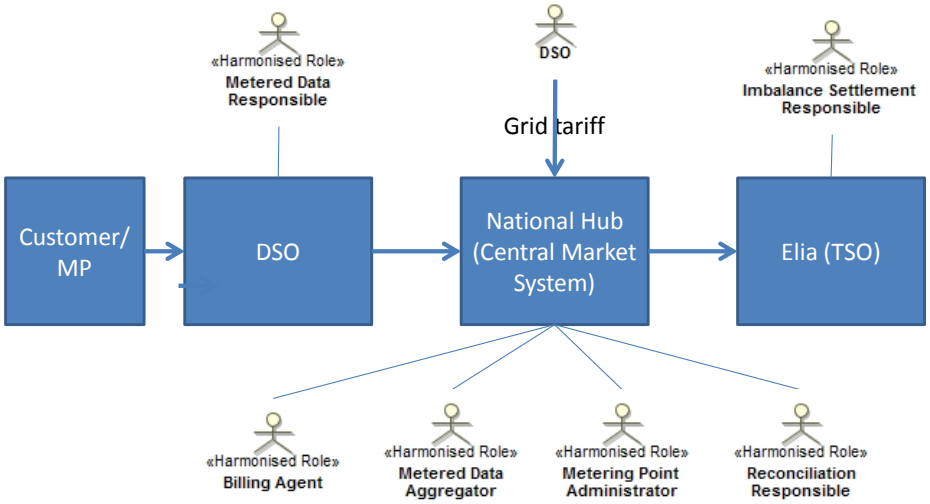
SvK would like to have hourly volumes when starting the Swedish hub. Also for flexibility hourly volumes are supposed to be necessary. Nordic balance settlement system (agreed by NO, SE, FI) is scheduled to start at 2017.



Remarks: In SE the DSO will provide both the tariffs and the grid cost per MP (as the result of its own calculation) to the Hub. The hub then assembles the data for the Supplier. The Supplier sends the invoice per MP to the Customer..The Hub also sends aggregated billing data per Supplier to the DSO. The DSO sends an invoice to each Supplier.

BE: There are pilot projects for the roll out of smart meters. Full roll out is not foreseen at the moment. The present focus is more on prepayments and smart meters. Data security is being discussed on the privacy aspects of the datahub, but not really yet on the overall electricity system consequences. Smart meters are linked to new market developments such as the metering process for smart metering, settlement process, flexibility and decentralized production, new services (for example partial selling of own decentralized production, ..), ESCO-processes (request data, receive data, registration of the relation with customer, ...). The ATRIAS hub is planned to be live in January 2018. (Integration testing starting with DSO in March 2017, in July with suppliers).

Belgian Hub



PL: pilots with smart meter roll out (overall just a few percents, but only DSO Energa may have by now about 50% of the meters as smart). Privacy aspects are relevant to the regulator. Supplier centric model is adopted by the regulator (one contract and one integrated bill). Meter is owned and operated by the grid company. Smart meter has to be changed every 8 years.
NL: The liberalization of the Dutch metering market has gone through several stages. Starting with opening the possibility for free choice of metered data collection. In the next phase free choice of collection and validation and meter replaced the free choice of collection only. And finally the present stage where the market is split into a segment of large customers and a segment of small (household) customers. For the large customers the previous stage (open market incl. free choice of meter) is continued, for the household customers the supplier has been assigned the metering responsibility (collection and validation) where the responsibility for the meter has been assigned to the grid company.
As in other countries also in The Netherlands options to have more than one responsible BS/BRP at a Metering Point are being discussed. The discussion focuses on how to link these Balance Suppliers and Balance responsible Parties to elements in the installation at the Metering Point.
At the moment a feasibility study is being done regarding the possibility of combining the supporting software for the use of MADES/EDX and AS4 for data communication in the market. This study has been triggered by the requirement of ENTSO-E for the use of MADES and the requirement of ENTSOG (followed by some national regulators) for the use of AS4. As in the downstream market in several countries electricity and gas are often combined within one company and supported by one system, these conflicting requirements may lead to problems. A first report is expected before the end of this year.

5.4. European initiatives

Lucy and Vlatka are actively trying to involve ebIX® in ongoing European initiatives and projects regarding TSO-DSO cooperation (ENTSO-E), flexibility market design (European Commission) and modelling information exchange (with a focus on measured data) for new processes for Demand Side Flexibility and Consumer Consent for data collection and transfer (ESMIG).

Lucy and Vlatka have also visited several potential new member countries in an effort to arouse interest in participating in ebIX®. As a first result Austria has renewed its membership and participation in ebIX® and Croatia has announced to become a member.

6. Present BRS's:

6.1. Use of XOR in BRS Settle for Reconciliation:

6.1.1. Prices for Reconciliation (MeteringGridArea and MarketBalanceArea): Do we mean an optional choice or is it a required choice

6.1.2. PriceVolumeCombination (MeteringGridArea and MarketBalanceArea): Do we mean an optional choice or is it a required choice

We have discussed this.

Conclusion: the choices are required. Although we prefer the present specification of cardinality (optional) in combination with an indication of XOR, we decided to bring the BRS in line with the present BIM with regard to the use of cardinality in case of choice as specified in the OCL-statements (cardinality of 0..1 or 0..n for one or more of the elements leads to an optional choice, cardinality of 1 or 1..n leads to a required choice). As a consequence we update the cardinalities in the BRS's involved from 0.1 to 1. The update has been done. Check for other BRS's where this change has to be applied (**action: Kees**)

7. Business requirements to be updated for supplier time-of-use (input from Belgium)

Thibaut showed his presentation. Timeframe mainly focuses on difference in tariff for grid cost. But may also be used for difference in cost for energy supply. It is assumed that difference in grid cost will have more effect on customer behaviour than energy cost.

We discussed:

- Timeframe as master data (where do we specify the various timeframes and how will these be made available? New messages?
  Answer: normally this information is made available through a publication either by the national regulator or by the DSO (for example on a website or in a manual). We see no need at the moment for additional messages.
- ebIX® codes for new timeframes? Or just national??
  Answer: we will investigate the present national timeframes (**action: all**). And then see which codes coincide and make for the common timeframes an ebIX® code and leave the rest for national codes (**action: all at next meeting**).
- Text in BRS to explain how to use more elaborate time-of-use.
  Answer: probably the best place in the BRS to do this is to add this kind of text to the list with ebIX® timeframes and their definition. Therefore we review this next meeting (**action: all at next meeting**)
- Consequences for supplier centric billing (from where will the supplier get information about time-of-use?)
  Answer: question will be answered when we draw up the BRS for supplier centric billing (**action: all at item** 9 **of this agenda**)
- Is there a difference in definition of time-of-use and timeframe?
  Answer: yes.
  - Timeframe: periodically recurring predefined set of times-of-use.
  - Time of use: a code identifying the set of financial conditions for a defined period to be applied to the use of a connection to the grid.

  When we draw up the list of ebIX® codes for times-of-use, we also better check these definitions again and maybe add some explanation to the list and the definitions (**action: all at next meeting**).
  Remark: present use of metertimeframe in ebIX® models should be use of time-of-use instead! Therefore we have to change the term used in the ebIX® models and change the Change Request for IEC CIM (we should propose to introduce time-of-use and not propose metertimeframe). We have to align this first with ebIX® CuS and then apply the consequences to the IEC CIM change request (**action: Minna/Kees/Thibaut**).

8. Business requirements to be updated for commercial prepayment (input from Belgium and Germany)

Since there was no input available the item is postponed till our next meeting.

9. Business requirements for invoicing grid cost in a supplier centric model

See the draft skeleton for supplier centric billing. We adopted the line of thinking represented in this draft. We decided to not (yet) detail customer invoicing and procurement, but focus on detailing the information exchange between grid and supplier. And while doing this we try to investigate possible needs for master data. Kees had included in this draft some questions to be answered by ebIX® EMD and/or ebIX® CuS.

Actions:

1. Prepare investigation for questions 1-6 (**action: Eva/Kees**)

2. Send request to ebIX® CuS for question 7 (**action: Eva/Kees**).

10. Consequences of new market designs for role model elements (added during the meeting)

Bertil expressed his worries about the fact that national decisions regarding new market designs for developments such as charging poles, demand response and the flexibility market seem not be influenced by ebIX® models by lack of these models. This is also true for the Harmonized Role Model which seems to be legging behind too far to be relevant for national developments.

11. Review ebIX® models (BRS's and BIM's for measured data)

New national requirements regarding time-of-use have been discussed under agenda item 7. BRS's are to be checked for cardinalities regarding choice (see item 6.1). We saw no other need for reviewing the BRS's or BIM's.

12. Work plan for next meetings

- Supplier centric billing
- ESCO exchange of measured data on the basis of registration of the authorized ESCO in the MPA.
- Time-of-use in (next meeting only)
- Commercial prepayment (next meeting only)
- Demand-response
    - Aggregator role for flexibility
    - Storage?
- Consequences of charging poles?

Scheduled next meetings

EMD 44: March 1st and 2nd 2017, The Netherlands
EMD 45: May 9th and 10th 2017, Poland (?)
EMD 46: June 20th and 21st 2017, Finland (dates are corrected, were wrong in the previous version of the minutes)

13. Any other business

None.

Appendix A PARTICIPANTS IN EBIX® METERED DATA PROJECT

Members

Name	Company	Telephone	Mobile	E-mail
Minna Arffman	Fingrid	+3583039500101	+358406483015	minna.arffman@fingrid.fi
Eva Lepperhoff, convener	Innogy	+49 20112 49835	+49 162 250 4430	eva.lepperhoff@innogy.com
Thibaut Hellin	Atrias		+32476520778	thibaut.hellin@atrias.be
Vacancy Joost de Geus	*TenneT*			*joost.de.geus@tennet.eu*
Lars Munter	SvK	+46104758185	+46705397850	lars.munter@svk.se
Bertil Larsson	SvK	+46702014921	+46702014921	bertil.larsson@svk.se
Ragnar Maalen-Johansen	Hafslund		+4790739273	ragnar.maalen-johansen@hafslund.no
Pawel Goralski	Poland	+48228213842	+48694428640	pawel.goralski@innogy.com
Mariusz Czeremcha	PGE Dystrybucja S.A., Poland		+48 665700332	mariusz.czeremcha@pgedystrybucja.pl
Janez Hauptman	Elektro Ljubljana, Slovenia	+386 1 230 45 17	+386 31 342 784	janez.hauptman@elektro-ljubljana.si
Tadej Šinkovec	Elektro Ljubljana, Slovenia	+386 1 230 40 91	+386 31 713 702	tadej.sinkovec@elektro-ljubljana.si
Kees Sparreboom, secretary	ebIX®		+31 6 22667911	kees.sparreboom@capgemini.com

Observers

vacancy	*SAP/Vendor group*			
Oscar Ludwigs	SvK	+4687397784	+46705397784	oscar.ludwigs@svk.se
Christian Odgaard	Energinet.dk	+45 76 224463	+45 23 338555	cco@energinet.dk
Preben Høj Larsen	Energinet.dk	+45 76 22 42 47	+45 23 33 88 66	phq@energinet.dk

Information to:

Name	Company	Telephone	Mobile	E-mail
Ove Nesvik	ebIX	+4722421380	+4792822908	ove.nesvik@edisys.no
Vlatka Cordes	Westnetz	+49 201 12 23958	+49 162 2944648	vlatka.cordes@westnetz.de

Appendix B OPEN ACTIONS

	Action	Name	Planned end date	End date
43.1	Check for BRS's where the cardinality update for choice has to be applied.	Kees	44	
43.2	Take stock of present national timeframes and codes used for these.	All	44	
43.3	Align the terms used for metertimeframe and time-of-use with ebIX® CuS.	Minna, Thibaut, Kees	asap	
43.4	Apply the consequences of the alignment with ebIX® CuS to the IEC CIM change request.	Kees	asap	
43.5	Prepare investigation for questions 1-6 from draft skeleton supplier centric billing	Eva, Kees	asap	
43.6	Send request to ebIX® CuS for question 7 from draft skeleton supplier centric billing	Eva, Kees	44	

43.7				
43.8				

Appendix C ACTIONS MOVED TO LIST "DONE"

	Action	Name	Planned end date	End date
40.3	update all BIM's containing ABIE Energy_TimeSeries because of the addition of MeterRead.	Kees	42	43
41.1	Complete BIM Settle Reconciliation and forward to ebIX® ETC for approval	Kees	42	43
42.1	Distribute ebIX® (EMD) questionnaire	Kees	asap	43
42.3	Send finalized EMD BRS's to ebIX® Forum for approval	Kees	43	43
42.4	Suggest an efficient way of reviewing by EMD for finalized BIM's	Eva	asap	43
42.5	Update BRS's for Measure Collected Data and for Measure for Billing with gas requirements	Kees	43	43
42.6	Inform ebIX® CuS and ebIX® ETC about the ebIX® EMD point of view regarding metering method	Kees	43	43
42.7	Draft a work plan for ebIX® EMD (to be presented at the ebIX® Forum)	Eva and Kees	asap	43

Appendix D ACTIONS MOVED TO LIST REMOVED

42.2	Fill in ebIX® (EMD) questionnaire	All	asap	removed

Appendix E ACTIONS TRANSFERRED TO OTHER GROUP
