


<b>Agenda - Project for Nordic (TSO) Energy Market Model for data exchange (NEMM)</b> <b>Date:</b> Tuesday and Wednesday December 18 <sup>th</sup> and 19 <sup>th</sup> , 2012 <b>Time:</b> 10:00-17:00 and 9:00 – 15:30 <b>Place:</b> Oslo	 <b>NEG</b> Nordic Ediel Group
January 18 <sup>th</sup> , 2013	

**Participants:**

Jan Owe, SvK  
 Jari Hirvonen, Fingrid (first day)  
 Jon-Egil Nordvik, Statnett (Convenor)  
 Ole Fredsø Weigelt, Energinet.dk  
 Ove Nesvik, EdiSys (Secretary)

**To:** Antti Niemi, Nord Pool Spot  
 Christian Hoang Huy Le, Statnett  
 Christian Odgaard, Energinet.dk  
 Eveliina Ishii, Nord Pool Spot  
 Hanna Blomfelt, Nord Pool Spot  
 Jan Owe, SvK  
 Jari Hirvonen, Fingrid  
 Jon-Egil Nordvik (Convenor)  
 Ole Fredsø Weigelt, Energinet.dk  
 Ove Nesvik, EdiSys (Secretary)  
 Roar Grindstrand, Statnett

**Invited guests:** NBS:

Morten Torgalsbøen, Statnett (NBS)  
 Mats Elmér, SvK, (NBS)  
 Timo Kiiveri, Fingrid (NBS)  
 Pasi Lintunen, Fingrid (NBS)

**CC:**

Jan-Olov Lundberg, SvK  
 Oscar Ludwigs, SvK  
 Tor Bjarne Heiberg, Statnett  
 Tor Åge Halvorsen, NordPool

**Attachment:** None

**1 Approval of agenda**

The agenda was approved with the following additions:

- In- and Out-feed ATC, see 15.1 under AOB
- NORCON recommendation paper, see 15.2 under AOB

**2 Approval of previous meeting minutes**

The minutes from previous meeting was approved after correction of two spelling errors.

**3 BRS for Trade and Schedules**

The homework from previous meeting was gone through:

- A) The following naming convention will be used in BRS for Schedules and Trade:

**FNR** will be renamed **FCR-N** = Frequency Containment Reserves, Normal  
**FDR** will be renamed **FCR-D** = Frequency Containment Reserves, Disturbance

With the following definition:

Frequency Containment Reserves (FCR): Operating reserves activated for stabilizing System Frequency after an imbalance.

B) “Figure7: Continental Europe and Nordic operational schedules differences” in the BRS for schedules was updated.

C) **LFC** will be renamed to **FRR-A** in the BRS for trading system, with the following definition:

Frequency Restoration Reserves (FRR): Reserves activated to restore System Frequency to the Nominal Frequency and, where applicable, power balance to the scheduled value.

**FRR-A**=Automatic

**FRR-M**=Manual

In today’s BRS we will not use the term **FRR-M**.

#### **Homework:**

- Ove will update the BRSs with the new terms
- Ove will update the dictionary in the Common rules and recommendations with the new terms
- Ove will send the BRSs and the Common rules and recommendations on Circulation for comments to NEG (for two weeks) before publishing.

#### **4 NBS and BRS for Nordic settlement system**

There were no news received from NBS and the update of the BRS for settlement was postponed.

Jan and Ove had as homework from previous meeting to bring the change request for Aggregated Data documents and a question on how to solve new requirements for LPS and the reconciliation process, when these are ready from NBS, to the ebIX® Forum and ETC meetings the week after the previous meeting. After the presentation Vlatka (charwoman of ebIX®) promised that the two ebIX® projects EMD and CuS will get resources to give support for the ongoing (coming) Nordic processes, i.e. NBS and the Common Nordic End User Market. It was noted that the Nordic countries have nominated the following participants for EMD:

- Morten Torgalsbøen, Statnett, [morten.torgalsboen@statnett.no](mailto:morten.torgalsboen@statnett.no)
- Preben Høj Larsen, Energinet.dk, [phq@energinet.dk](mailto:phq@energinet.dk)
- Lars Munter, SvK, [Lars.Munter@svk.se](mailto:Lars.Munter@svk.se)

At the ebIX Forum meeting, Jan and Ove got as homework to send a change request to EMD (Vlatka and Kees) with the proposed changes needed from NBS:

Addition of a Balance Supplier ID in:

- ebIX® Aggregated Data per MGA for Settlement Responsible (E31, E44) for consumption and production
- ebIX® Aggregated RE/BRP reconciled energy per MGA on consumption (E31, E44)

It was however agreed to postpone the change request to EMD until the BRS for settlement has been reviewed and agreed by NBS.

**Conclusion:**

- The homework for Jan and Ove (change request to EMD) will be postponed until the BRS for settlement has been reviewed and agreed by NBS.

**5 Maintenance requests to ENTSO-E**

*Homework from previous meetings:*

- Jon-Egil will present the “NEMM Currency Exchange Rate Document” at the next ENTSO-E meeting, asking if ENTSO-E will make an “ENTSO-E Currency Exchange Rate Document”. Jon-Egil will also ask how to handle Nordic codes if ENTSO-E not will make an “ENTSO-E Currency Exchange Rate Document”.

**Status:**

- Will be continued
- Jon-Egil will inform ENTSO-E/WG-EDI about the NEMM work with a “NEMM Area Specification Document”, asking for interest for making an “ENTSO-E NEMM Area Specification Document”.

**Status:**

- For the time being we will use the NEMM document

MRs not yet sent to ENTSO-E and MRs that not are closed was reviewed, among others with the following conclusions and comments:

- MRs related to the *NEMM Currency Exchange Rate Document* was postponed until ENTSO-E eventually agrees making the document
- *NEMM Spot Bid Document* will be a Nordic document, using Nordic codes, such as:
  - Bid Type:
    - Z01** Hourly bids
    - Z02** Block bids
    - Z03** Flexible hourly bids
  - Role Code:
    - Z05** Trader
- MRs related to the *NEMM Area Specification Document* was postponed until the need is clarified with NPS. This includes MRs for:
  - Document Type:
    - Z05** Area specification document
    - Z06** Market connection points document
- The following Process type codes will be used:
  - A11** Primary reserves process (instead of **Z01**)
  - A12** Secondary reserves process (instead of **Z02**)
  - A13** Tertiary control process (instead of **Z03**)
  - Z04** Reserve option market (will be a Nordic code (**Z04**))
- NEMM 2011/58 will be sent and requesting a new *NEMM (NEG) Auction Specification Document*
  - The following Business Types must be followed up:
    - Z02** Frequency bias (Dealt with in **NEMM 2011/46**)
    - Z03** FCR-N Frequency activated normal reserve (FNR) (Dealt with in **NEMM 2010/33**)

- **Z06** Frequency activated disturbances reserve (FDR) (Dealt with in **NEMM 2010/33**)
    - For the time being **Z03** and **Z06** above will be Nordic codes
    - **NEMM 2011/63**, requesting the Message Type Code **Z03**, *Auction Specification Document* will be sent.
  - ERRP Reserve Bid Document:
    - **NEMM 2011/65** will be sent requesting removal of the term *capacity* from the definitions of the *Contract type*
    - **NEMM 2011/66** will be sent requesting removal of the term *capacity* from the *Contract type list*, similar to **NEMM 2011/65**. Alternatively add new codes for Daily, Weekly, Monthly and Intraday contract
    - Process Types:
      - Z03** FCR-N Frequency activated normal reserve (FNR) (Nordic code)
      - Z06** Frequency activated disturbances reserve (FDR) (Nordic code)
      - Z35** Commercial Bid (In process in ENTSO-E **NEMM 2011/94**)
      - Z36** Reserve bid (In process in ENTSO-E **NEMM 2011/94**)
    - Business type detail (In process in ENTSO-E **NEMM 2011/95**):
      - Z01** Hydro
      - Z02** Nuclear
      - Z03** Thermal
      - Z04** Wind
      - Z05** Decentralised
      - Z06** Gas turbine and diesel
      - Z07** Other thermal
      - Z08** Consumption
    - Business type detail **Z09**, *Solar* will be sent as a new MR **NEMM 2013/112**
    - **NEMM 2011/100** will be sent requesting addition of the following elements to the *Reserve bid time series class*:
      - *Gradient up* (Dealt with in **NEMM 2012/100**) Ok
      - *Gradient down* (Dealt with in **NEMM 2012/100**) Ok
  - ECAN Allocation Result Document:
    - **NEMM 2011/102** will be sent requesting addition of a *Process Type* to be used for specifying the relevant market
    - **NEMM 2011/103** will be sent requesting changed cardinality for the following elements to [0..1]:
      - *Bid Document Identification* - Will not be used in the Nordic countries
      - *Bid Document Version* - Will not be used in the Nordic countries
      - *AuctionIdentification* - Will not be used for all markets in the Nordic countries
      - *OutArea* - Will only be used for bilateral trade in the Nordic countries
      - *ContractType* - Will not be used for all markets in the Nordic countries
      - *ContractIdentification* - Will not be used for all markets in the Nordic countries
      - *MeasureUnitQuantity* - Will not be used when only sending prices in the Nordic countries
      - Change the cardinality of the *Qty* element to [0..1] – Will not be used when only sending prices in the Nordic countries
    - **NEMM 2011/105** will be sent requesting addition of a new Reason Code **Z18**, *Price based on preliminary exchange rate*
  - EPD Publication Document:
    - **NEMM 2011/106** will be sent requesting addition of a *Process Type* to be used for reporting the trade balance of a party at a given time

- **NEMM 2011/107** will be sent requesting addition of a new *Process Type Code Z06, Total trade (The trade balance of a party at a given time)*
- **NEMM 2011/108** will be sent requesting change of the cardinality of the *OutArea* to [0..1]
- **NEMM 2011/110** will be sent requesting addition of the Price Types *Maximum Price, Minimum Price* and *Average Price*
- ERRP Activation Document:
  - **Error! Reference source not found.**, requesting addition of the elements *Senders Bid document Identification* and *Senders Bid document Version* for referencing the Bid document that contains the bid that is basis for the activation was postponed until next meeting.

#### **Homework:**

- Ove will inform Antti that his homework for submission of a request for an EIC code for the Nord Pool spot market area has been removed from the NEMM agenda.
- Jon-Egil will clarify the need for a NEMM Area Specification Document with NPS
- Ove will update the MRs, send on circulation for comments to NEMM participants (Ole, Jari, Jan and Jon-Egil) before end of week 1, who should reply before end of week 2.
- Jon-Egil will send the MRs to ENTSO-E in due time before the next meeting, January 29<sup>th</sup>.

## **6 Status for implementation verification**

Jan had as continued homework from previous meetings to see if the documents specified by NEMM will fit the information exchanged as EDIFACT document in Sweden today. The homework is related to new principles for time series identification in Sweden, after the introduction of UTILTS.

Jan showed an Excel sheet where he had compared some of the current exchanges in Sweden with the ENTSO-E documents. The related discussion implied the following changes to the Confirmation Report in the BRS for schedules:

- Addition of Business Type *A02 Internal trade*
- Addition of the definition of Business Type *A08 Net internal trade*
- Addition of Reason Codes at the header level:

*Used in Denmark:*

- A01** Message fully accepted
- A02** Message fully rejected

*Advised for new implementations:*

- A06** Schedule accepted
- A07** Schedule partially accepted
- A08** Schedule rejected

#### **Homework:**

- Jan will continue his homework to see if the documents specified by NEMM will fit the information exchanged as EDIFACT document in Sweden today (related to new principles for time series identification in Sweden, after the introduction of UTILTS).
- Denmark will verify the usage of the Reason codes for the Confirmation Report.

## **7 tWG**

tWG expects to discuss the NEMM note explaining the topic of “missing values” in their January meeting. A status will be put on the next agenda.

## 8 Status for ENTSO-E ERRP WG

Jon-Egil reported that all MRs sent to ERRP had been dealt with, some rejected, some approved and some where other solutions was proposed. However the Minutes and updated ERRP documents were not available yet. The Maintenance Requests were gone through and the BRSs where updated where possible, as far as Jon-Egil could remember the ENTSO- decisions. A final update is needed after the minutes from previous ENTSO-E and ERRP documents are available.

Jon-Egil reported also that ENTSO-E is going to base all IGs and XML documents on the CIM model, which will result in changes according to the CIM standard in many class names and attribute names.

### *Homework:*

- Ove (with the help of Jon-Egil) will update the BRSs for Trade and Schedules when the minutes from previous ENTSO-E and the ERRP documents are available.

## 9 Status and information from "EMFIP"

Jon-Egil reported:

- The implementation is postponed, at least, until autumn 2013.
- A document "ENTSO-E generation and load transparency process" is out on a circulation for comments until December 19<sup>th</sup>. The document specifies among others the xml schemas to be used for EMFIP.
- It seems that MADES will be used as communication platform, i.e. it seems that the Nordic TSOs will have to implement MADES anyway.
- It is under discussion which identification scheme to use, such as GS1 or EIC. The discussion concerns all relevant objects, such as parties, resource objects, areas etc.

## 10 Status CIM XML

No news. The item will in the future be taken under the information item (see below)

## 11 Meteorological information

Jon-Egil had distributed a document; "CIM for Environmental Data". In this IEC document weather data standards, such as TMY3 and WXXM are used for creation of two IEC profiles to cover CIM for Environmental Data representations.

The last paragraph in the IEC document says:

Endorsement of WXXM for B2G vs CIM for Environmental Data for Utility Internal Exchanges  
CIM for Environmental Data is aimed at the exchange of environmental data between systems within a utility. The advantages of using the CIM for Environmental Data: the ability to cover all environmental data requirements for utility systems; integration with existing enterprise semantic models, including asset and location models; and support for existing CIM tooling and processes are not as applicable when the data is exchanged outside the utility.

In this situation an existing standard, WXXM, is better suited for exchanging the weather data with external parties. While a utility and its associated vendors may use CIM for Environmental Data if it is unlikely that other industries and external parties will use this. In this situation converting CIM for

Environmental Data into WXXM would allow the data to be shared with external parties who are not users of CIM.

**Conclusion:**

- Based on the text above it seems as the best solution is to propose WXXM as the format when receiving weather data from national meteorological service providers, probably with addition of a SOAP header, e.g. for routing purposes).

**12 Swedish <-> Polish data exchange**

Jan informed that Sweden have started to work with their Polish neighbours in order to establish EDI exchange with them. We will use ECAN, ESS, maybe ERRP and some other document types. Regarding settlement data we are suggesting to use an (almost) ebIX<sup>®</sup>-version for the metered values. But what shall we use for the daily (and monthly) settlement information?

The intention is to send:

- Unintentional Power SvK and PSO (quantities, prices, amounts)
- Agreed Supportive Power, SvK and PSO (amounts – prices can have been sent before)
- Losses (Polish/Swedish) (quantities, prices, amounts)

ENTSO-E, EAR, may only contain “Settlement amount” and quantities. Not prices. But also before the settlement phase we will send prices (area price, imbalance price) and amounts. Maybe ENTSO-E EPD can be used for that, however amounts can’t be sent in EPD (nor in ERRP).

Either we will invent a new document having both prices and amounts, and quantities. Or we will extend an existing document. Creating a new document will give us the possibility to send something without the version problem. That will be helpful for us; however our Polish friends will perhaps not like that. Extending an existing document give us the question: extending which document?

Before I later this week continue with that issue, I therefore wanted to check with you – is anyone sending both prices, amounts and quantities in the same document?

In the Swedish discussion with Poland it is suggested to use a Regional Group Nordic format for settlement. Today the common Nordic format for settlement is MSCONS; however XML will be used to/from Poland. We will have a future Nordic standard as a result of the NBS work, however yet far from being possible to use already next year for the exchange with Poland. And, as it looks today, the format for the NBS-exchange will not be one format, but several – based on both ENTSO-E and ebIX<sup>®</sup> formats.

Denmark has described their solution in RSM-014 where an aggregated metered data document is defined. The document is based on ebIX<sup>®</sup> methodology, but extended, among others with the possibility to use bot prices and amounts, however not used in version 1 in Denmark.

Jan raised the following questions;

- Is there any possible “Nordic XML format” to be used for settlement data (Towards Poland) while waiting for a common Nordic format?
- And, can it include prices, amounts and quantities?

However without any answer.

A sequence diagram and a related table were drafted, see **Appendix A, SwePol**.

### 13 Information (if any)

The NordREG Task Forces related to a common Nordic end user market have been delayed. The first requirements for change of supplier are earliest ready by March 2013.

The ebIX®, EFET and ENTSO-E harmonisation group has postponed the next meeting until March 2013.

### 14 Next meeting

Wednesday April 3<sup>rd</sup> and Thursday April 4<sup>th</sup> 2013 in Denmark (Copenhagen)

- BRS for Settlement, under the condition that we have a reply from NBS
- Review of result from MRs to ENTSO-E

### 15 AOB

#### 15.1 *In- and Out-feed ATC*

In the NorNed data exchange for ATC, TenneT and Statnett will start sending two time series; one for ATC in the in-feed end and one for ATC in the out-feed end, since the ATC is different in the two ends. The difference is about 4 %. Currently there is only one ENTSO-E code for ATC (**A26**).

An alternative could be to use Business Type = **A26** (ATC) for both time series and add In Area, Out Area and Metering Point to the documents, with the following rules:

- If Metering Point=In Area then the ATC excludes losses
- If Metering Point=Out Area then the ATC includes losses

However the latter proposal will probably create more implementation work and the TSOs think the first proposal is better.

The first proposal will imply addition of two new Business Type codes:

**N03** = In-feed ATC

**N04** = Out-feed ATC

#### Conclusion:

- It was agreed that NEMM will make a MR and sent to ENTSO-E for two new Business types.

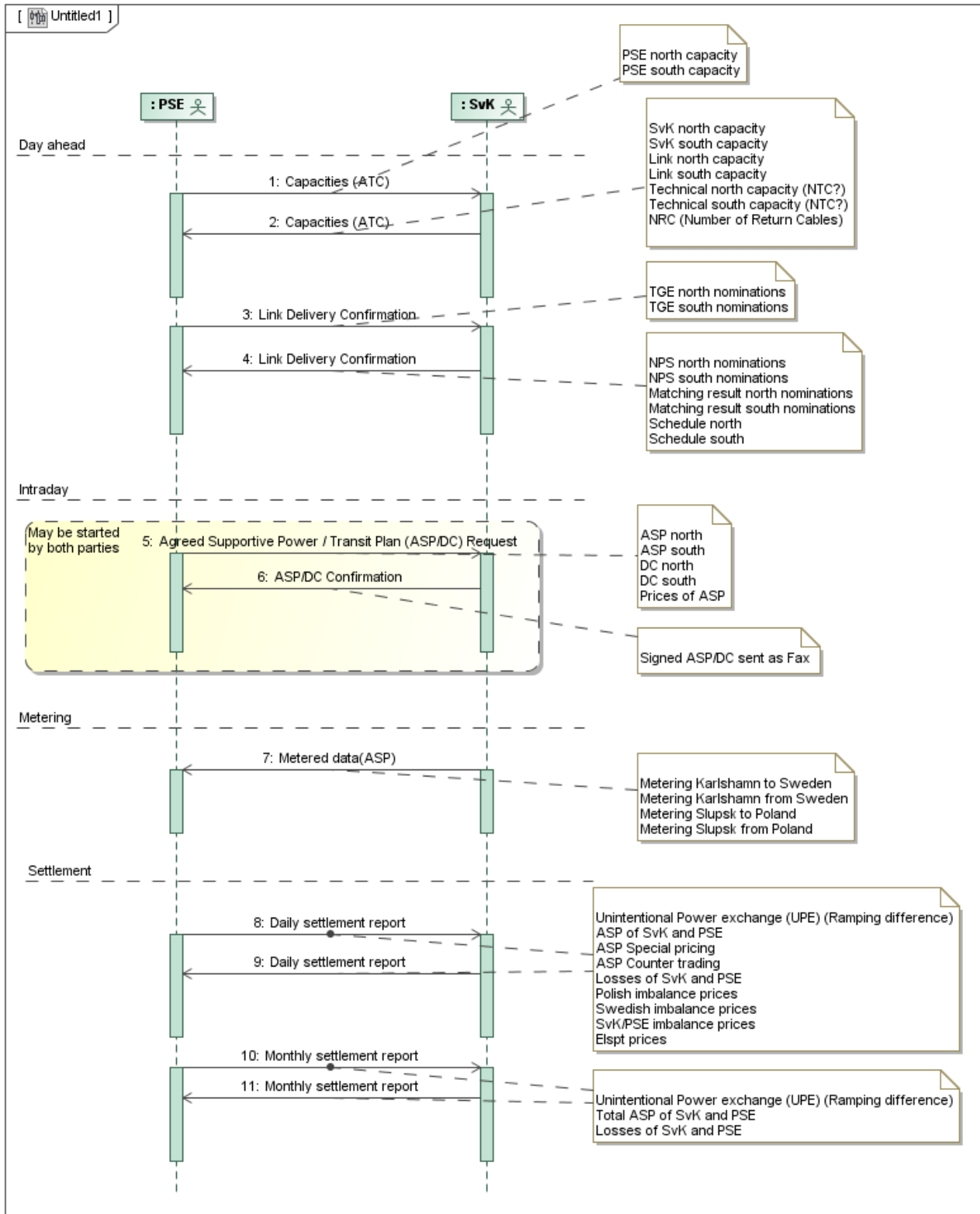
#### 15.2 *NORCON recommendation paper*

Jari informed that it is stated in a NORCON recommendation paper that Ediel documents should be used for market data and time series, while ETSO (ENTSO-E) XML schemas should be used for NOIS projects. However the ETSO (ENTSO-E) schedule needs to be development further to meet the needs of NOIS.

NEG made in September 2011 the document “Standards for Electronic Data Interchange (EDI) in a common Nordic retail market. A Position Paper from the Nordic TSOs.”, which Jari will forward to NORCON as input from NEG.



# Appendix A SWEPOL



Document	Direction	Time Series	ebIX® / ENTSO-E	Doc type	Proc. type	Business type
Capacities (ATC)	PSE -> SvK	PSE north capacity PSE south capacity	ECAN Capacity Document			
Capacities (ATC)	SvK -> PSE	SvK north capacity SvK south capacity	ECAN Capacity Document			
		Link north capacity Link south capacity				
		Technical north capacity (NTC?) Technical south capacity (NTC?)				
		NRC (Number of Return Cables)	EOD?			
Link Delivery Confirmation	PSE -> SvK	TGE north nominations TGE south nominations	ESS Schedule document			
Link Delivery Confirmation	SvK -> PSE	NPS north nominations NPS south nominations				
		Schedule north Schedule south	ESS Confirmation Document			
		Matching result north nominations Matching result south nominations				
Agreed Supportive Power / Transit Plan (ASP/DC) Request	SvK <-> PSE	ASP north ASP south	ERRP Planned Resource Schedule EPD			A46
		DC north (Transit Plan) DC south (Transit Plan)			A17	A16 Transit
		Prices of ASP				
Agreed Supportive Power / Transit Plan (ASP/DC) Confirmation (today: Fax)	SvK <-> PSE	ASP north ASP south	ERRP Resource Schedule Confirmation Report EPD			
		DC north (Transit Plan) DC south (Transit Plan)		A04	A17	A16 Transit
		Prices of ASP				
Metered data(ASP)	SvK -> PSE	Metering Karlshamn to Sweden Metering Karlshamn from Sweden Metering Slupsk to Poland Metering Slupsk from Poland	ebIX® EMD model measure for billing, Validated Data for Aggregator (E66, E44 (Settlement))			
Daily settlement report	SvK <-> PSE	Unintentional Power exchange (UPE) (Ramping difference) incl. price	ESP Energy Account Report			
		ASP of SvK and PSE <b>incl. price</b>				
		ASP Special pricing <b>incl. price</b>				
		ASP Counter trading <b>incl. price</b>				
		Losses of SvK and PSE <b>incl. price</b>				
		Polish imbalance prices	EPD			
		Swedish imbalance prices				
SvK/PSE imbalance prices						

		Elspot prices			
Monthly settlement report	SvK <-> PSE	Unintentional Power exchange (UPE) (Ramping difference)	ESP Energy Account Report		
		Total ASP of SvK and PSE			
		Losses of SvK and PSE			

## **Appendix B TO BE DISCUSSED AND AGREED**

1. Follow up on *Special rules related to NOIS*:
  - Reason codes have to be sent in a separate time series. The related quantities must always have a dummy value, but the value will be ignored by NOIS.
2. Follow up on question to the HG on how to handle a *Quantity quality* (metered, estimated...) and “*no-value*” or “*nil*”.

## Appendix C EXTRACT OF THE OVERALL PROJECT PLAN

The following 5 phases have been identified in the *Nordic TSO Market model project for data exchange*:

**Phase 1** *Determine transfer capacity process*

Phase 1 was finalised spring 2009 regarding documents from the project group. However Maintenance Requests (MR) to ENTSO-E/WG-EDI is still in progress.

**Phase 2** *Scheduling and Ancillary Services Process* covered by the ENTSO-E ESS and ERRP IGs

- operational and financial
- balancing and reserves
- In addition phase 2 include:
  - A document containing common rules and recommendations, *including* detailing of a communication platform
  - A document covering a common *Domain model* for the Nordic market.

Phase 2 was finalised spring 2010 regarding documents from the project group. However Maintenance Requests (MR) to ENTSO-E/WG-EDI is still in progress.

**Phase 3** *Nordic trading system*

- Bid to the Balance regulation market
- Prices from the balancing market and spot market, and other Nord Pool messages
- Activation messages
- Bid process to the Spot market (dependent on NordPool)

Phase 3 started autumn 2009 and is still in progress. It is mainly processes related to Nord Pool Spot that are left.

**Phase 4** Settlement process

Phase 4 started in spring 2010, but is currently awaiting the Nordic Balance Settlement (NBS)

**Phase 5** Preparation for implementation verification of the documents between the Nordic TSOs and Nord Pool Spot.

The Customer switching (CuS) process is a potential additional phase, dependent on political decisions, i.e. a common Nordic end user market.

For each of the phases mentioned above, a BRS will be made for the relevant business process. Change requests will be submitted for all identified differences between the Nordic processes and ENTSO-E/ebIX<sup>®</sup> standards.

Activity	Spring 2009	Autumn 2009	Spring 2010	Autumn 2010	Spring 2011	Autumn 2011	Spring 2012	Autumn 2012
Phase 1, Determine transport capacity	[Active]							
BRS	[Active]							
Change request to ENTSO-E			[Active]					
Phase 2, Scheduling process	[Active]							
BRS	[Active]							
Change request to ENTSO-E		[Active]						
Phase 3, Nordic Trading System		[Active]						
BRS		[Active]						
Change request to ENTSO-E			[Active]					
Phase 4, Settlement process	Awaiting NBS (Nordic Balancing System)							
BRS								
Change request to ENTSO-E								
Phase 5, implementation verification					[Active]			