Expert Workshop

"Challenges Ahead in European Electricity Market Design"

Location:
Martin's Brussels EU
Boulevard Charlemagne 80
1000 Brussels

FINAL MINUTES

16th October 2014

Dissemination level: Consortium

Agreement n.:	IEE/13/593/SI2.674874
Duration	April 2014 – September 2016
Co-ordinator:	SINTEF Energi AS
Supported by:	

Co-funded by the Intelligent Energy Europe Programme of the European Union

PARTICIPANTS

Name	Organisation
Ahcin Peter	SINTEF Energi AS
Auer Hans	TU Wien
Burgholzer Bettina	TU Wien
Dourlens Sophie	TECHNOFI SA
Flament Aurore	3E NV
Guarrata Angela	Becker-Büttner-Held Rechtsanwälte-Wirtschaftsprüfer-Steuerberater
Hoeksema Joël	APX Group
Huertas Hernando Daniel	Entso-e
Joseph Pieter	3E NV
Kreusel Jochen	ABB AG
Kunze Christian	Swissgrid AG
Langer Yves	APX Power B.V.
Lantrain Aurore	EPEX SPOT SE
Lorenz Gunnar	Eurelectric
Loureiro Ricardo	REN/FOSG
Morch Andrei	SINTEF Energi AS
Olmos Luis	Universidad Pontificia Comillas
Papakonstantinou Athanasios	DTU Electrical Engineering
Pineda Iván	European Wind Energy Association-EWEA
Rekinger Manoël	European Photovoltaic Industry Association- EPIA
Rodilla Pablo	Universidad Pontificia Comillas
Thies Frauke	European Photovoltaic Industry Association- EPIA
van Wanrooij Esther	TenneT TSO B.V.
Wilczek Paul	European Wind Energy Association-EWEA

EXCUSED

Name	Organisation
Howard Richard	The Crown Estate
Graeber Dietmar	EnBW
Balke Joachim	DG ENER, Unit C.1 RES and CCS Policy

FINAL AGENDA

10:00-10:15	*Welcome coffee*
10:15-11:30	Introduction: Challenges in the European Electricity Market Welcome from the Project Coordinator Andrei Morch, Sintef Keynote: ACER's Contribution toward a Single European Energy Market N.N. (ACER Representative to be nominated) Background of the Energy-Only Market Problem Hans Auer, EEG TU-Wien Brief Introduction to the Diagnosis of the European Target Model Luis Olmos, IIT-Comillas Introduction to the Group Work (Outline of major questions (see introduction) to be addressed in the next session) Hans Auer, EEG TU-Wien & Luis Olmos, IIT-Comillas
11:30-11:45	*Coffee break*
11:45-13:00	Parallel Working Groups Work in the Parallel Working Groups All Participants
13:00-13:45	*Lunch*
13:45-15:15	Presentation of Working Group Results, General Discussion Presentation of Working Group Results Representative of Each Working Group General Discussion All Participants Summary, Concluding Remarks Hans Auer, EEG TU-Wien
15:15	*End of Expert Workshop*

Introduction: Challenges in the European Electricity Market

Agenda point	*Conclusions and actions*
1. Introduction Andrei Morch, Sintef	Andrei Morch welcomed several of the participants and gave a brief introduction into the Market4RES project.
2. Keynote from ACER	Unfortunately, the foreseen speaker from ACER, Mr. Martin Povh, could not attend the workshop due to another short-term obligation at the same time. Therefore, ACER's keynote address was cancelled.
3. Background of the Energy-Only Market Problem Hans Auer, EEG	After the presentation of Hans Auer on the energy-only market background, the following major question was raised: How far did you consider the scarcity pricing? Price caps? Hans: Do customers need 100% supply in every hour? The implementation of scarcity pricing would trigger demand response! Ivan: It is very important to respect demand response in the project. Interconnection capacities are also important concerning countries with high generation capacities and neighbouring ones with less. Pablo: Price caps and the missing money problems are very important issues. The lowest price cap in Spain appears three times a year. One of the reasons could be that demand has not grown as expected. Only 5% are used of thermal capacity. At the moment there is the problem of too much capacity in Spain and each of them can't earn enough money to work profitable. Hans: In Spain there are many problems with existing gas fired power plants. At the moment it is not possible for the power plant operators to operate profitable without changing the system.
4. Brief Introduction to the Diagnosis of the European Target Model Luis Olmos, IIT Comillas	Question from Tennet: Network Code Hypothese. Do you give some directions for the implementation of the TM? Luis: In work package 2 the diagnosis of the European Target Model only comprises the search of lacks. Appropriate directions will be delivered by other work packages like in WP 3, 4 and 5. Question from Eurelectric: Are there Interviews with Stakeholders concerning TM Implementation planned? EUPHEMIA Luis: Yes, e.g. at the WP 3 expert workshop, which will be in April 2015. Question from Eurelectric: How do you come to the Network Codes? Do you look at the process? Luis: Only focusing on regulation itself.
5. Introduction Group Work: Hans Auer, EEG	Question from Tennet: Generation adequacy is not only a long-term problem it's also a short-term problem, do you consider both? Hans: Yes, we will consider both and also the interdependencies.

Gunnar Lorenz from Eurelectric briefly summarized the official position of Eurelectric in this context and handed over the corresponding public document from his association: “Renewable energy and security of supply: Finding Market Solutions” Reference link: http://www.eurelectric.org/media/154655/res_report_140919_lr-2014-030-0569-01-e.pdf

Finally, Sophie Dourlens mentioned to be modest concerning the interpretation of results of the work groups.

Major Outcomes from the Group Work

Long-term electricity market

		Justification	Example
Target Model (TM): enough incentives for generation adequacy?	Yes? Why?	Let's talk about System Adequacy (SA); including both Generation Adequacy (GA) and Transmission Adequacy (TA); TM does not address this question; TM assumes that given infrastructure is sufficient; Scope of TM is narrow (existing assets); Overcapacity in some regions (no need to think about additional capacities); No risk (price) signals towards customers	Some European Countries Spain (but profitability problem)
	No? Why not?	It relies on the energy—only market; Priority dispatch of RES-E; Negative prices	Some European countries
Capacity Remuneration Mechanisms (CRM)	Types: o Capacity payments o Long-term contracts •for Conv. generation •for RES generation o Decentralized approach o Others	Reluctance in terms of centralised planning approach; Rather decentralised: Balancing responsible party has to take care and the risk (correct price signals); DSM very important (see below); See also Forward-Market dicussion	
	CRM implementation details for the different (preferable) types above: • Involved actors/market participants • Who shall do what? • …	No centralised planning in a country of a few national experts only	
Participation of demand response in CRMs reasonable?	Yes? Why? How? Barriers?	Yes, definitely! Long-term contracts could impose it (but market intervention).	
	No? Why not? Barriers?	-	
Regulation/Coordination of national CRMs at …	…regional, national or international level? What are the dependent factors?	At least national	
Can „neighbours" provide long-term security of supply?	Neighbouring generation adequacy? How? Cross-border transmission adequacy? How?	Yes, although it is expected that each country wants to maintain a certain share of self-generation; Cross-Border Transmission Capacity shall be a scarce good	
	Others? How?	-	
Alternative solutions: Forward market	How to design it? Contract for Differences (long-term contracts; financial products)? You can offer what you want!	Generators and Demand to participate!	

Security of Supply	100% security of supply?	Also national issue. Degree of freedom that customers decide security of supply. How to announce this (no mainstream political/policy opinion).	

Day-ahead electricity market

		Justification	Example
Price Coupling of Regions (PCR)	Product design of bids flexible enough for market participants to reflect in their bids their real cost and constraint? Yes? Why? No? Why not?	There is a trade-off between the inclusion of constraints of all types (flexibility) and liquidity. A limited set of products should probably be defined in order to achieve a high enough level of flexibility.	
How many cross-border transmission capacity should be allocated by PCR?	100% or <100% or 0%? Why? Please explain....	In general, it shall be 0% to foster the forces of the free market.	
	Physical rights possible? Yes or No? Why? Please explain... In case yes, do you see any concerns/ implications with the existing policy documents of ACER? In case of no, how can long-term cross-border supply contracts be implemented?	Physical products may result in an exacerbation of the level of market power exercised. Financial products could solve problems in the long term, included the cross-border provision of term.	
	What are the implications for cross-border balancing market opening in case of 0-100% transmission capacity allocation by PCR?	Balancing markets could be celebrated after the outcome of the energy market has been computed.	
	(When) is flow-based capacity allocation supposed to be ready for implementation? Experience so far in the CWE-region test sites?	Not foreseeable	
Timing of electricity markets	Appropriate sequence of markets (with versus without physical rights)?	Some argue that providing as many markets in as many time frames as possible would allow agents more freely to choose where to trade their energy. Others are worried about liquidity problems in some close to real time markets if markets in all time-frames are open. One option would be to get day-ahead closer to real time. The TSO should provide information on their best forecast of system conditions (RES output, demand).	

Integrated European Market (IEM)	Do wholesale market price areas in Europe reflect grid congestion adequate enough (please refer also to the bidding zone review of ACER and ENTSO-E)? If yes, why? If no, why not and how to modify?	There may be some losses of efficiency related to the use of current market price areas, since they are quite big and may not reflect network congestion. However, price areas defined should not be small (nodal or similar), because this would negatively affect the liquidity of the market. The relevant market area may get very much reduced.	
Demand response	How to integrate demand response?	No answer yet	

Very-short term electricity market

		Justification	Example
Continuous short-term market?	Preferable over a series of intra-day markets? If yes, why? If no, why not?	TSO's intraday market and tertiary market can be combined in one single platform. Hydropower as very flexible asset flexible. Why yes: Continuous short term market gives an opportunity to correct their imbalances it can be relevant in some countries. (This is a trade-off) It is preferable option in sense of encouraging the trade. Gate closure 30 minutes. Why not: considering liquidity as an important issue on a market.	Switzerland Spain
Integration of balancing markets until 2020 possible?	Which obstacles exist to achieve this?	Potential conflict of interests, conflict of different products among countries and transmission capacity allocation.	One integrated platform in DE, CH and AT.
	How to settle responsibilities for power imbalances?	Two views: • TSO cannot guarantee the system stability along and prefer to delegate balancing of parts of the system, which might be a suboptimal system solution. • One actor balancing the system may have an advantage.	
	Can demand participate? Are currently existing prequalification criteria discriminatory? If yes, why?	Yes, provided that the participants meet the prerequisites: for example activation time and min capacity, allowing aggregation and design of products should be adapted. Not discriminatory	Predictability of the reserves, depending on the type of consumers.

			Necessary to have mechanisms for resolution of potential conflicts between transmission and distribution.
Integration of balancing markets until 2020 possible?	What about barriers for RES participation? Are currently existing prequalification criteria discriminatory? If yes, why?	• The whole costs for introduction of RES and imbalances are distributed in the system. • "Must run" power plants (Wind and PV); difficult to have customers, increasing demand. • Symmetry of the balancing up- and downward regulation is required: asymmetry should be allowed. • Reliability demands for participation: decreasing with few percent (confidence interval) would increase the availability of bids significantly. • Pricing of imbalance: if the service is not delivered, what price to be used? • Potential possibility for gambling on the balancing market.	Switzerland
	How can cross-border balancing markets work and how can „neighbours“ provide real-time operation services? • How to allocate necessary cross-border transmission capacity? • How to handle the different merit-order list and guarantee redundancy in case of cross-border transmission congestion? • Imbalance netting implementation between control zones: voluntary or mandatory?	Understanding that this is related to primary regulation. How to allocate interconnectors' capacity? - Fixed share according to season - Use it or lose it principle (UIOLI) Understanding preparation to possible technical downfalls in the transmission capacity. Having a safety margin is a solution, but how big should it be? Enough but not blocking the transmission. Monitoring and probability-based calculations (historical perspective/temperature and empirical data). Voluntary	

Annex

Signed participation list

Market RES

First and Last Name	Organization/Company	Signature
Ahcin Peter	SINTEF Energi AS	
Auer Hans	Technische Universitaet Wien (AT)	
Balke Joachim	DG ENER, Unit C.1 RES and CCS Policy	
Burgholzer Bettina	Technische Universitaet Wien (AT)	
Dourlens Sophie	TECHNOFI SA (FR)	
Flament Aurore	3E NV (BE)	
Graeber Dietmar	EnBW Energie Baden-Württemberg AG	
Guarrata Angela	Becker-Büttner-Held Rechtsanwälte-Wirtschaftsprüfer-Steuerberater	
Hoeksema Joël	APX Group	✓
Howard Richard	The Crown Estate	
Huertas Hernando Daniel	Entso-e	
Joseph Pieter	3E NV (BE)	
Kreusel Jochen	ABB AG	
Kunze Christian	Swissgrid AG	
Langer Yves	APX Power B.V. (NL)	✓
Lantrain Aurore	EPEX SPOT SE	
Lorenz Gunnar	Eurelectric	

Market RES

Morch Andrei	SINTEF Energi AS	
Olmos Luis	Universidad Pontificia Comillas (ES)	
Papakonstantinou Athanasios	DTU Electrical Engineering	
Pineda Iván	European Wind Energy Association- EWEA (BE)	
Rekinger Manoël	European Photovoltaic Industry Association – EPIA (BE)	
Rodilla Pablo	Universidad Pontificia Comillas (ES)	
Thies Frauke	European Photovoltaic Industry Association – EPIA (BE)	
Van Wanrooij Esther	TenneT TSO B.V.	
Wilczek Paul	European Wind Energy Association- EWEA (BE)	
Ricardo Loureiro	REN / FOS G	