



SEESGEN-ICT

4° GENERAL WORKSHOP

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J. S. Zieliński; University of Lodz:
European Countries Lookout - Poland



Paris 14-15/04/2011



Agenda

- Power market general review in Europe
 - Market liberalization
 - Role of regulators
- Poland lookout- regulations
 - Recommendations for Polish energy regulation
 - Polish CHP broker project- current status
- U. Lodz Dissemination of the Smart Grid Idea



SEESGEN-ICT- market liberalization

- In Europe the energy market liberalization process has reached high level of advancement. The main steps needed to complete the liberalization are :
 - Finished restructuring of the market with generation, transmission, distribution, and supply activities vertical unbundling;
 - Stimulation the competition on wholesale and retail market, so allowing new entry into generation and supply (DER aggregators);



SEESGEN-ICT- market liberalization

- Establishment of independent regulator and encouragement of regulations for transmission and distribution networks;
- Privatization of existing publicly owned businesses and opening the new private actors market;
- The wholesale and retail are liberalized, in some countries the transmission networks have been privatized, but being of national interest they are still under government control;



SEESGEN-ICT- market liberalization

- The VPP idea is applied as a legal way to stimulate the presence of real competition in the energy market;
- The idea of microgrid, standardization works, AMI introduction (2000-2008), cyber- security, privacy, data ownership issues are in advanced progress in the most of countries. New services (reserve services, storages, EVs) are starting from 2008 in many countries;
- **Important:** carrying out the transformation and the method of financing the investment is not a formal obstacle.



Role of Regulator

- The important question still is: **what kind of support the energy market (EM) expects from Regulator for the new business models, appropriate ICT systems and the Aggregator to function?**

Proper regulations must be the basis of all of changes and clarity on the market.



Poland lookout- regulations

- The energy market in Poland follows the evolution of the European market taking into account the EU directives and regulations.
- However, polish regulator continues to protect small end users – households, before the full release of the energy price.
- At the same time electric power sector requires significant investments in restoration, modernization and innovation. especially in ICT supporting market development as well as smart grids.
- The domestic system supporting RES and DER based on economic and legal instruments, are now undergoing too frequent changes and mainly supports large producers, who use the RES to meet the EU requirements 20x20x20.



Poland lookout- regulations

- Operating Certificate of Power Origin Market generates too weak finance impulses so potential investors evaluate investment risk still as high;
- Long period of investment return in the electricity sector in Poland is taken upon consideration.
- Nowadays, the Independent Operator of Measurement and the AMI in several local projects like: Intelligent Peninsula (Energa Company, PSE Company) is established and other is tested.
- Also same changes in polish market regulations are being developed. (Smart Grid Ready and Smart Metering for DER-document) prepared by Energy Regulator (URE).



Recomendations for Polish energy regulation

- To detail the document regulating the activities of the OSD, OSP and the electricity Sellers in order to open the remote measurement of electricity deployment in Poland within the "Smart Grid Ready", dedicated primarily to customers and distributed prosumers preparation.
- Specification of reasons for the proposed market model of measurement data development.
- Preparation of the detailed requirements for the IOM layer.
- To determine the architecture of the system, the division of tasks and responsibilities, and therefore determine the benefits for individual market participants.



And next...

- Detailed requirements for the HAN (Home Area Network) layer .
- Rules stimulating and monitoring the investment implementation.
- Particular requirements for safety measurement data, including the Law on Personal Data.
- Generic regulating rules for gas and heating industries.
- Other detailed legislative proposals, necessary for changes requiring the use of "fast track".
- Private protection and data security regulation.



Results:

Poland is at the beginning of the road leading to the shift towards a Smart Grid. The biggest problem is starting in the direction of investment and pro energy efficient funding and development of specific legal underpinnings for the functioning of all participants in competitive EM in the new market conditions. Parallel action for the implementation of AMI is the rapid development of ICT, supporting the operation of DER in all areas of management information and data on the market.



Polish CHP broker project – current status

- Because of the large shale gas deposits in Poland new opportunities for the development of cogeneration power or gas in Poland are opening.
- Therefore, new business models related to CHP broker are likely to occur on a wider scale.
- We can see the need of a wide range of incentives for investors to undertake measures to diversify sources of gas for power development.
- The real CHP broker project is still under construction.



U. Lodz Dissemination of the Smart Grid Idea

- Anna, Bozena and Jerzy published 14 papers devoted to Energy Market, Microgrids, RES and Smart Grids (in English and Polish) most of them presented on domestic and international conferences.
- Each of the paper has annotation that Authors are participant of the SEESGEN – ICT project.
- Two PhD dissertations on RES development in domestic rural- and suburb regions management (supervisor Jerzy).



**Thank You
for Your attention**



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