ENTSO-E experience from 2 years of operation

ENTSO-E team

Workshop on Implementing Transparency Regulation 543/2013 in the Energy Community Contracting Parties – 22th of March

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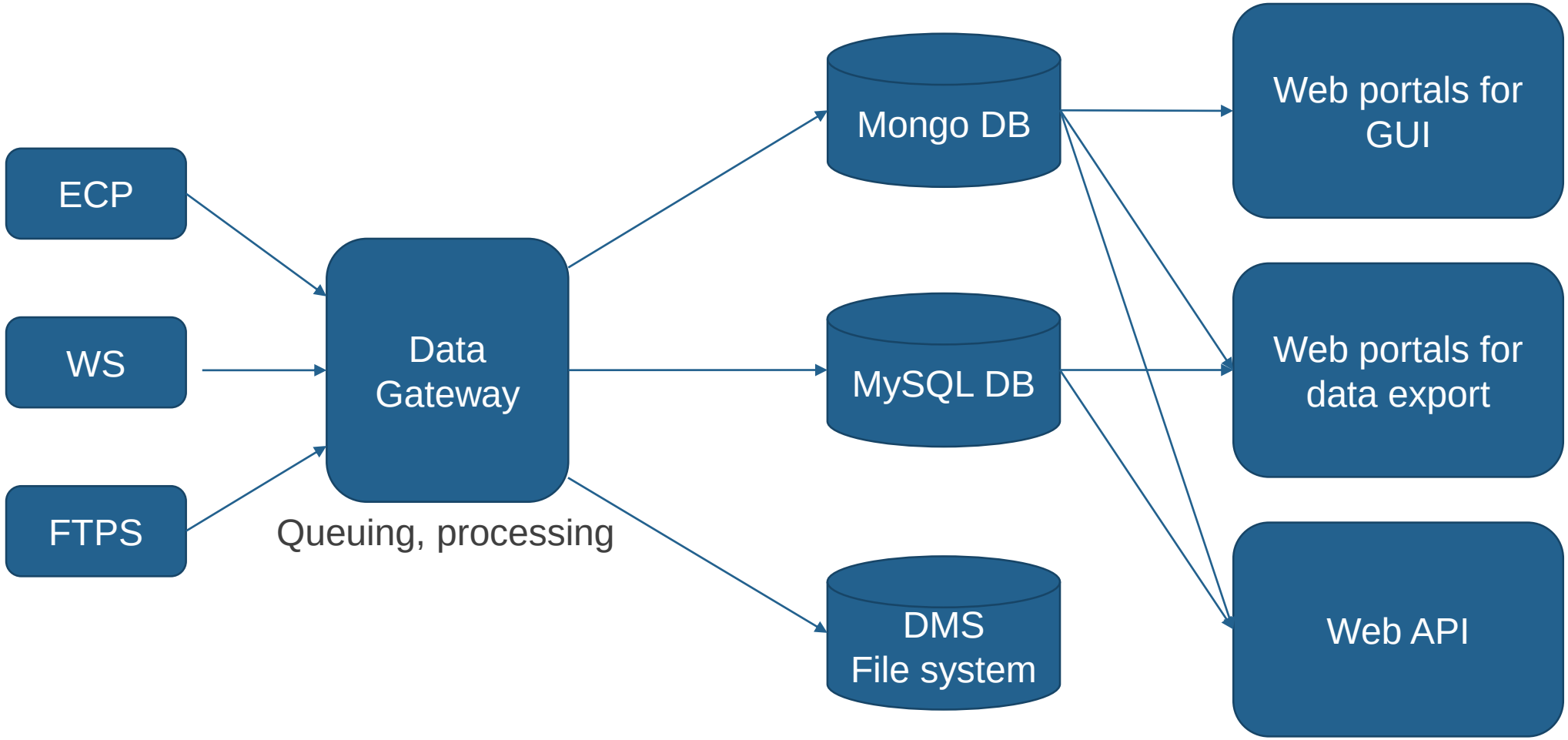
First steps for data providers

ENTSO-E Transparency platform

- Official launch - January 5, 2015
- Interoperability preparation submissions started in September 2014
- 6 Data domains: Load, Generation, Transmission, Balancing, Outages, Congestion management
- 50 Data providers: TSOs, Auction offices, Power exchanges, 3rd parties
- 40 – 80 000 files per day, ~10 million files per year
- 5134 registered generation units
- 24816 registered transmission assets
- ~2500 daily active users, ~7000 registered users
- 212 configured areas
- Data is reported to ACER ARIS (REMIT regulation)

ENTSO-E Transparency Platform architecture



First steps for new data providers

- Appoint Single Person of Contact (SPoC)
- Clarify Area concept
  - Country, Bidding zone, Control Area, Market balance area
- Make sure there is already a Local Issuing Office in the country, responsible for issuing EIC codes for areas/objects/assets
- Preparation of Reference data (currencies, borders, MTUs, BTUs, maps, time zones, …)
- Processes
  - First – InterOperability Platform (IOP)
  - Changes on Production only after success on IOP
  - Good understanding of MoP incl. DDD, BRS, IG, xml schemas, ECP or WS
- What data items will be reported?
- Info about the scope of master data
- Training for data providers users (very powerful users)

Area types

CTY – country

CTA – control area

- ‘control area’ means a coherent part of the interconnected system, operated by a single system operator and shall include connected physical loads and/or generation units if any;
- BZN – bidding zone
- ‘bidding zone’ means the largest geographical area within which market participants are able to exchange energy without capacity allocation;

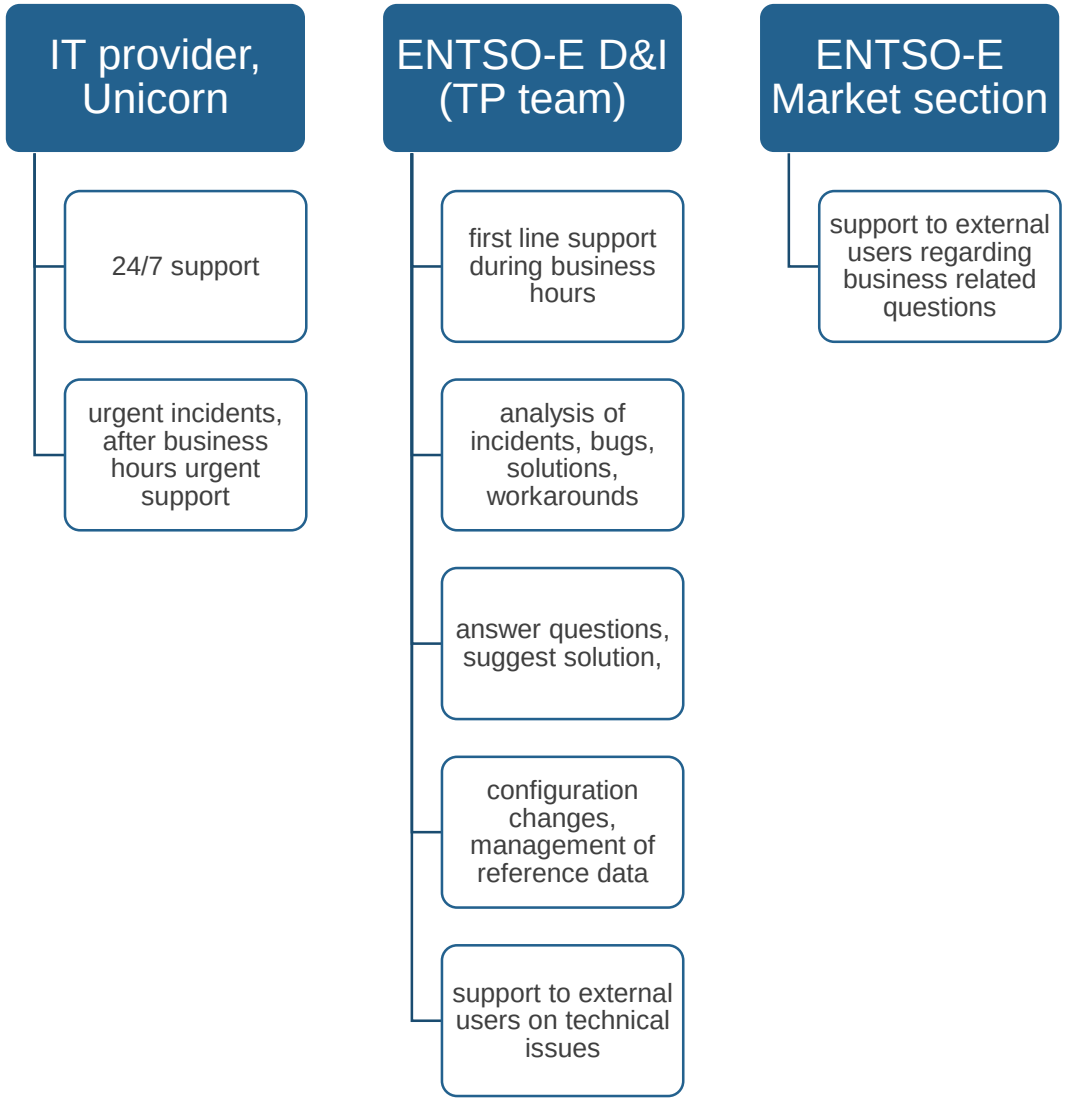
MBA – market balance area

Data submission

- Main communication channels: MADES/ECP, web services
- Back-up communication channel: ftps
- Data providers human users: Manual file upload, manual correction of values via GUI
- Data submission – xml files
- Implementation Guides – describes structure, requirements, possibilities for xml files
- PDF – 4 data items, manual upload via GUI
- ACKs – on communication channel level and after file processing
- Problem statement documents – optional for missing data submissions
- Data Flow Monitoring – detail information about file processing

Operational challenges

Service providers



Operational challenges

- Sufficient resources (FTE, budget)
- Monitoring of all processes on TP
- Analysis of incidents is complex and time consuming
- Difficult to monitor publication queue
- Monitoring and reporting tools
- Different configuration of IOP and Production for allocation data
- Different master data on IOP and Production
- Performance issues for some data items
- Operation above specified limits
- Screen scrapers and robots

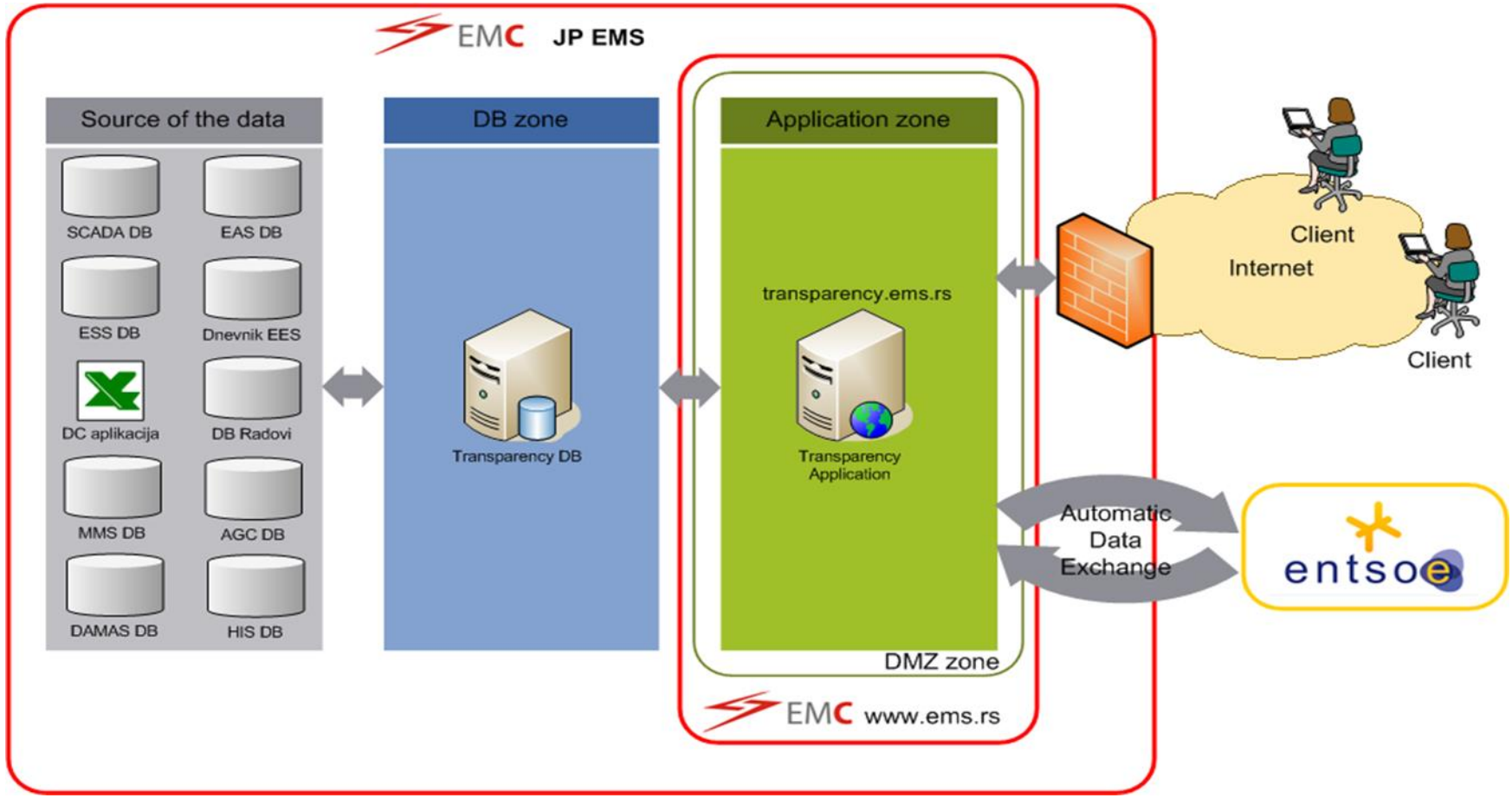
Lessons learned

- Not all data providers are managing correctly documents IDs (xml)
  - Result – cancelled data, duplicated publications,
- Structure of xml files is sometimes very inefficient with thousands of rows, when the same can be submitted with only few hundred lines.
- update or cancellation is send in the same batch with the first file
- flooding submissions from data providers
- submission of huge number of files should be coordinated in advance
- Cancellation of balancing data could be very challenging
- Different values from different data providers
- Quality of delivered data
- Tests of new submissions or modified files directly on production

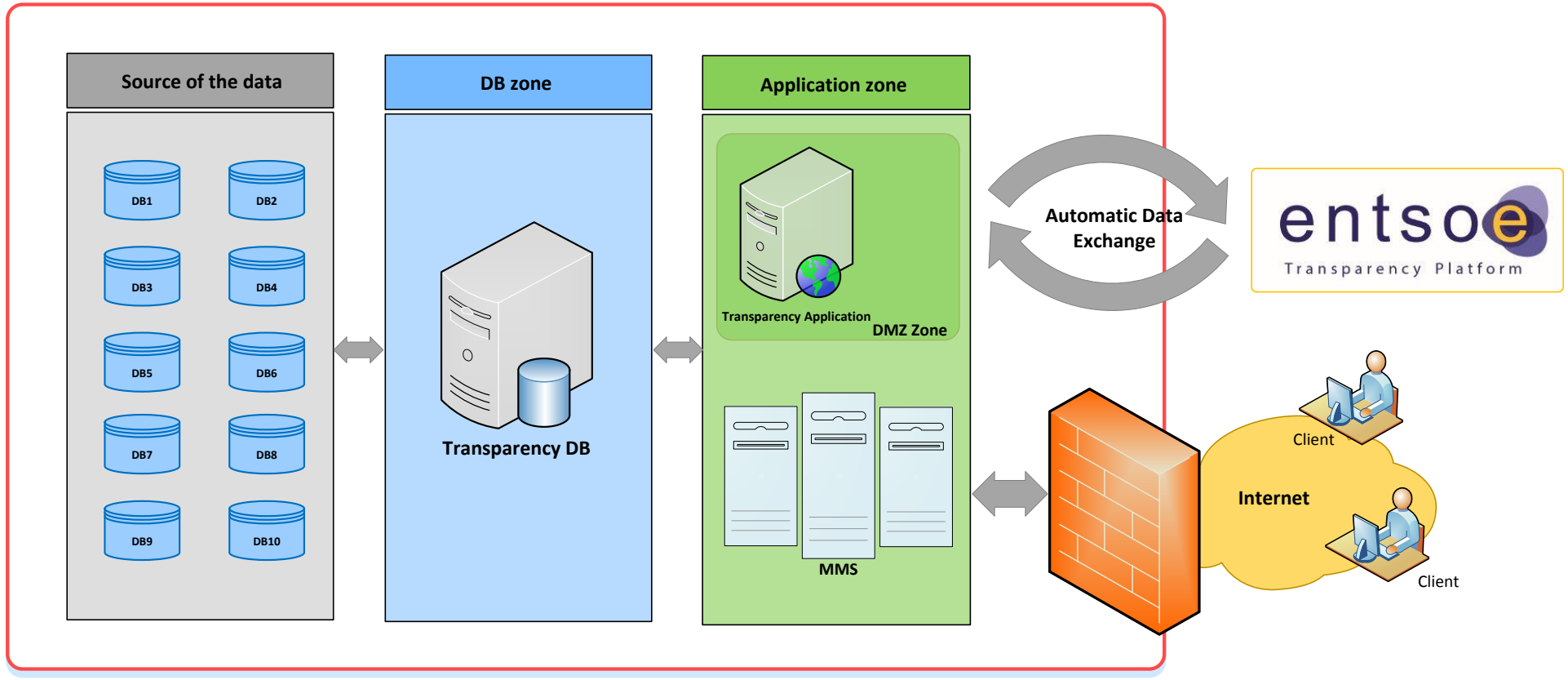
Operational challenges – EMS local project

• Transparency obligations (Regulation (EC) No. 543/2013, MoP, Energy Law, Rules on the publication of Electricity Market Fundamental data)
•Identification of work (Data, Primary owner of the data, Publication deadline, Updates)
•Establishment of team (in 2015 – 4 in 2016 - 6)
•Data location
•Database design (MySQL)
•Development of applications for collecting, preparing and sending data (PHP)
•Communication channels: FTPS, web services
•Update of applications
•Implementation of new applications
•Internal and external Interface
•EMFIP configuration - test and production (Master data, Allocation Definitions, Allocation Instance, Agreement with neighboring TSO on publication resolution, Priorities on cross-border data submission)
•Testing during the implementation phase
•Security
•Operation and maintenance (Monitoring, Status of files sent to EMFIP, Analysis)
•Documentation (Procedures, Instructions)

Operational challenges – EMS local project-Plan



Operational challenges – EMS local project-Realization



Operational challenges – EMS local project

- In generating, collecting and submitting data related to Balancing
  - Current system is not up to date (can not deliver data according to publication deadline stated in Regulation 543/2013) – new MMS is in implementation
  - MMS implementation is prolonged for Q4 2017
    - Congestion Management
    - Generation (Changes in Actual Availability of Generation Units, Changes in Actual Availability of Production Units)
    - Balancing (Accepted Aggregated Offers, Activated Balancing Energy, Prices of Activated Balancing Energy, Cross-border Balancing - Volumes of Exchanged Bids and Offers, Prices and Energy Activated)
- Providing data related to Load Forecast
  - New system is planned - forecast improvement (data quality)
    - In 2016 current system was upgraded with new modules for load forecast
- Providing data according to MoP changes
  - Changes in MMS (Congestion management – redispatching (13.1.a))

Users feedback

Helpdesk provided by ENTSO-E – ticketing system both for users and data providers

Support line for external users: transparency@entsoe.eu Support line for data providers: TPCsupport@entsoe.eu

3 people: 2 technical and 1 market

Queries from data completeness & quality to really technical topics

ticket received per month on average:

- 105 ticket from users from which 70 data related and 35 IT related
- 61 tickets from data providers

Data providers are involved in solving issues as in many cases data completness & quality issues are to be dealt by them

User Group (ETUG)

ENTSO-E Transparency User Group

Established after the go-live of the TP

Core (physical participation) and remote (online survey, remote testing) members

Covers different type of users: generators, traders, EC, ACER, researchers, It providers, TSOs etc.

3-4 meetings per year

Task is to propose

- Identify and analyse issues that impact data users including: data gaps, data inconsistencies, user interface problems, error messages, platform functionalities, general data questions and queries ,improvement and change suggestions.
- Organise and participate in the analysis and prioritisation of data-related issues to produce coherent, reasonable and useful user interface change and improvement proposals and recommendations for further assessment and eventual implementation by ENTSO-E
- Organise and participate in testing on the current Transparency Platform, and on any future user interface versions in the pre-development and user acceptance phases.

New features since go live (download functions)

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EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY

Directorate A - Energy policy
Directorate B - Internal Energy market
The Directors

Brussels,
ENER/A/B/

NOTE TO THE ATTENTION OF KONSTANTIN STASCHUS,
SECRETARY-GENERAL, ENTSO-E

Measures to increase the usability of the ENTSO-E Transparency Platform

Dear Mr. Staschus,

The Transparency Regulation sets out in Article 3 the establishment of a central information transparency platform. It further specifies that data shall be up to date, easily accessible, downloadable and made available to the public free of charge through the internet. Recitals (3) and (4) explain the critical importance of the provision of complete, timely, high quality and easily digestible information relating to supply and demand fundamentals.

Since the adoption of the above-mentioned Regulation, ENTSO-E has successfully implemented, in a short period of time, substantial improvements of the old version of the Transparency Platform (TP) to enable the delivery of reliable information from a very large dataset and a big number of primary owners of data.

As of January 2015 the new TP is online. One particular problem we are facing is that we are no longer able to automatically connect our internal data system, EMOS, to the new TP. We are grateful for the very good cooperation between our teams and that we are able to receive manual updates that are being fed into our system. This short term fix has ensured continuity but has not resolved the main issue of automated data transfer.

The European Commission relies on ENTSO-E data to adequately analyse developments on the European electricity market. This is critical information not just for us but for all market participants. It is very important to ensure that all market participants have seamless access to the data – either directly through the new TP or through the services of data/information aggregators such as Bloomberg, Thomson Reuters etc.

We believe that with a few relatively simple technical measures, the usability of new TP can be substantially improved without compromising the security of data exchange. We understand that the stakeholders at large and the business community have expressed similar concerns.

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June 2016:
Letter from EC requesting implementation of download facilities

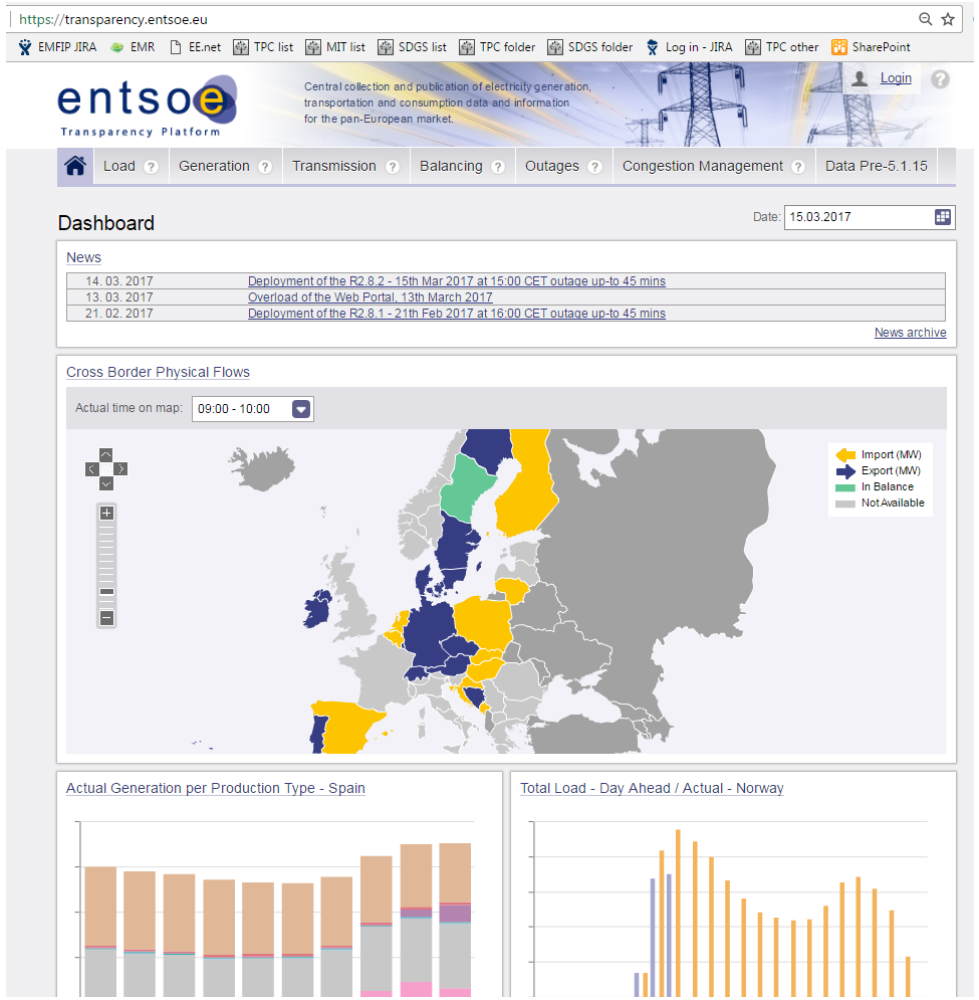
ENTSO-E develops such facilities and tests them with stakeholders/users

Stakeholders/users express their satisfaction in terms of improved usability of the data on the platform

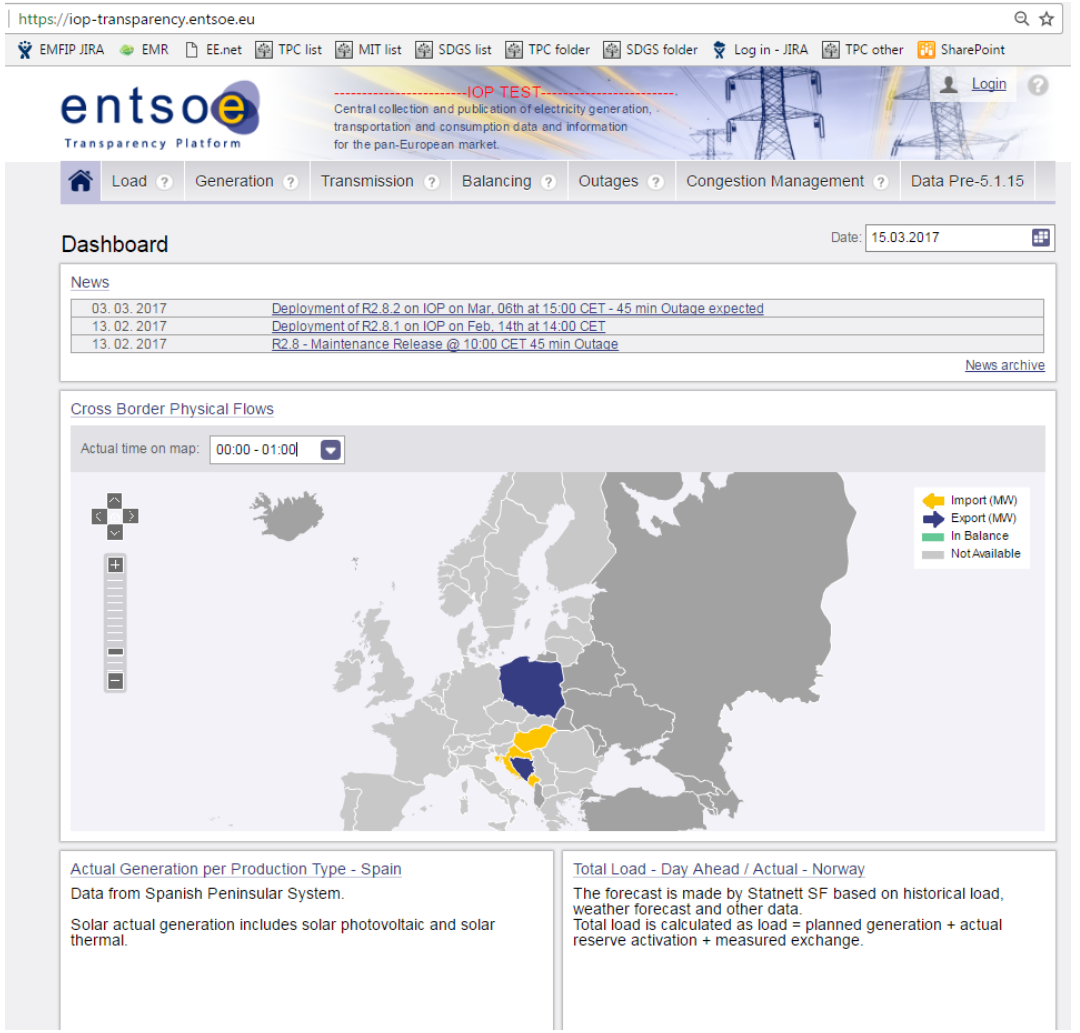
The Transparency Regulation sets out in Article 3 the establishment of a central information transparency platform. It further specifies that **data shall be up to date, easily accessible, downloadable and made available to the public free of charge through the internet**.

"DG ENER, along with other stakeholders and data/information aggregators, participates in the **ENTSO-E Transparency User Group** that was set out to improve the usability of the TP. In the first meeting of the User Group IT experts have already discussed technical issues. **Three possible solutions** to tackle the actual problems of automatization **(FTP, REST API or data repository**) have been put forward. We expect that ENTSO-E will select the best option and will deliver, as soon as possible, the new **dissemination method** that will be compatible with the proposed solutions".

ENTSO-E Transparency platform



Production platform:
https:\\transparency.entsoe.eu



IOP Test platform:
https:\\iop-transparency.entsoe.eu

Transparency Platform demo

https://transparency.entsoe.eu

Actual load and day-ahead load forecast [articles 6.1.A&B] in Poland

Actual generation per production type [article 16.1.B&C] in Slovakia

Month-ahead NTC forecast [article 11.1] on border between Greece and Albania

Imbalance prices and total imbalance volumes [articles 17.1.G&H] in Serbia

Outages of production and generation units [articles 15.1.A-D] in Bulgaria

Download of countertrading costs (article 13.1.c) in Poland 2016 via restful API