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Regulatory and Energy Assistance

CASE STUDY WORKSHOP

ENTSO-E Market Role Model in UK

Vlašić, BiH, December 5-6, 2012

USAID/BiH REAP

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CASE STUDY

ENTSO-E Market Role Model in UK

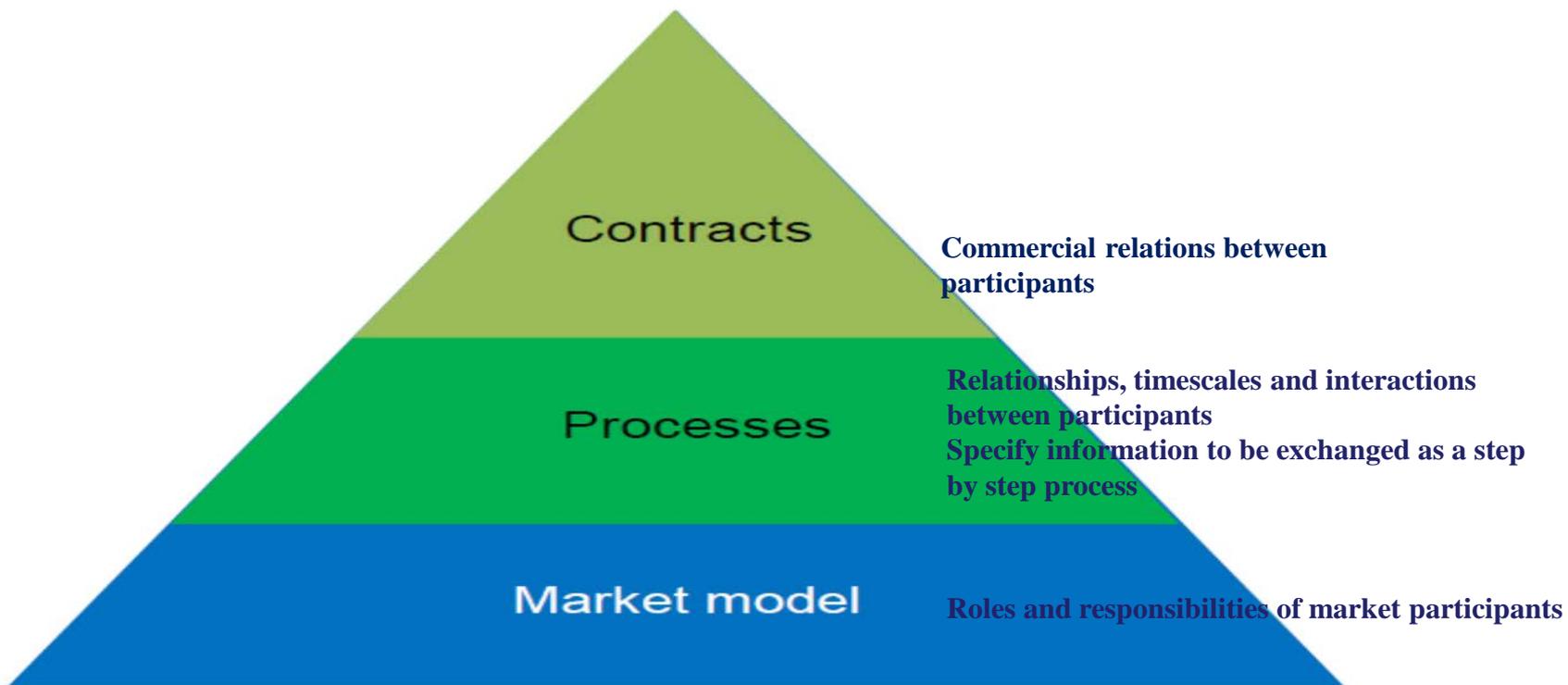
-structure and hierarchy of documents-

REAP

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Pyramid illustrates market design



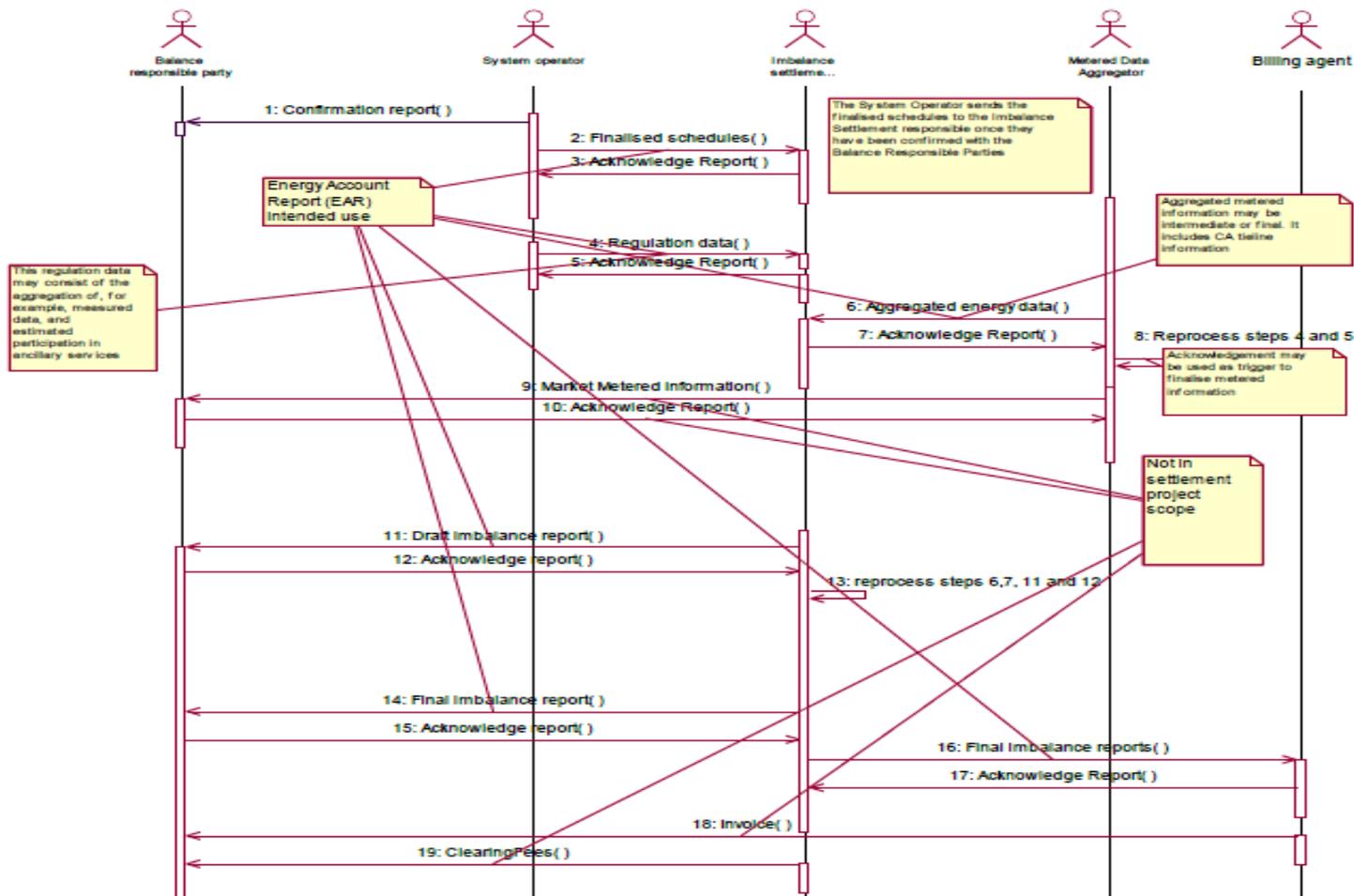


ENTSO-E Roles and responsibilities

ROLES		
TYPE	ROLE NAME	DESCRIPTION
Actor	Market Information Aggregator	<p>A party that provides market related information that has been compiled from the figures supplied by different actors in the market. This information may also be published or distributed for general use.</p> <p>Note: The Market Information Aggregator may receive information from any market participant that is relevant for publication or distribution.</p>
Actor	Market Operator	<p>The unique power exchange of trades for the actual delivery of energy that receives the bids from the Balance Responsible Parties that have a contract to bid. The Market Operator determines the market energy price for the Market Balance Area after applying technical constraints from the System Operator. It may also establish the price for the reconciliation within a Metering Grid Area.</p>
Actor	Meter Administrator	<p>A party responsible for keeping a database of meters.</p>
Actor	Meter Operator	<p>A party responsible for installing, maintaining, testing, certifying and decommissioning physical meters.</p>
Actor	Metered Data Collector	<p>A party responsible for meter reading and quality control of the reading.</p>



Information flow between participants





Documents which describe balancing market - UK

Balancing and Settlement Code (BSC) define roles and responsibilities of different agents in the balancing and settlement process

It is the major document that has a “Code Subsidiary Document (CSD)” which is a list of subsidiary documents that describes in detail, roles, processes, communications, etc.



“Code Subsidiary Document (CSD)”

- a) BSC Procedures;**
- b) Codes of Practice;**
- c) BSC Service Descriptions;**
- d) The Party Service Line;**
- e) Data Catalogues;**
- f) The Communication Requirements Document; and**
- g) The Reporting Catalogue.**



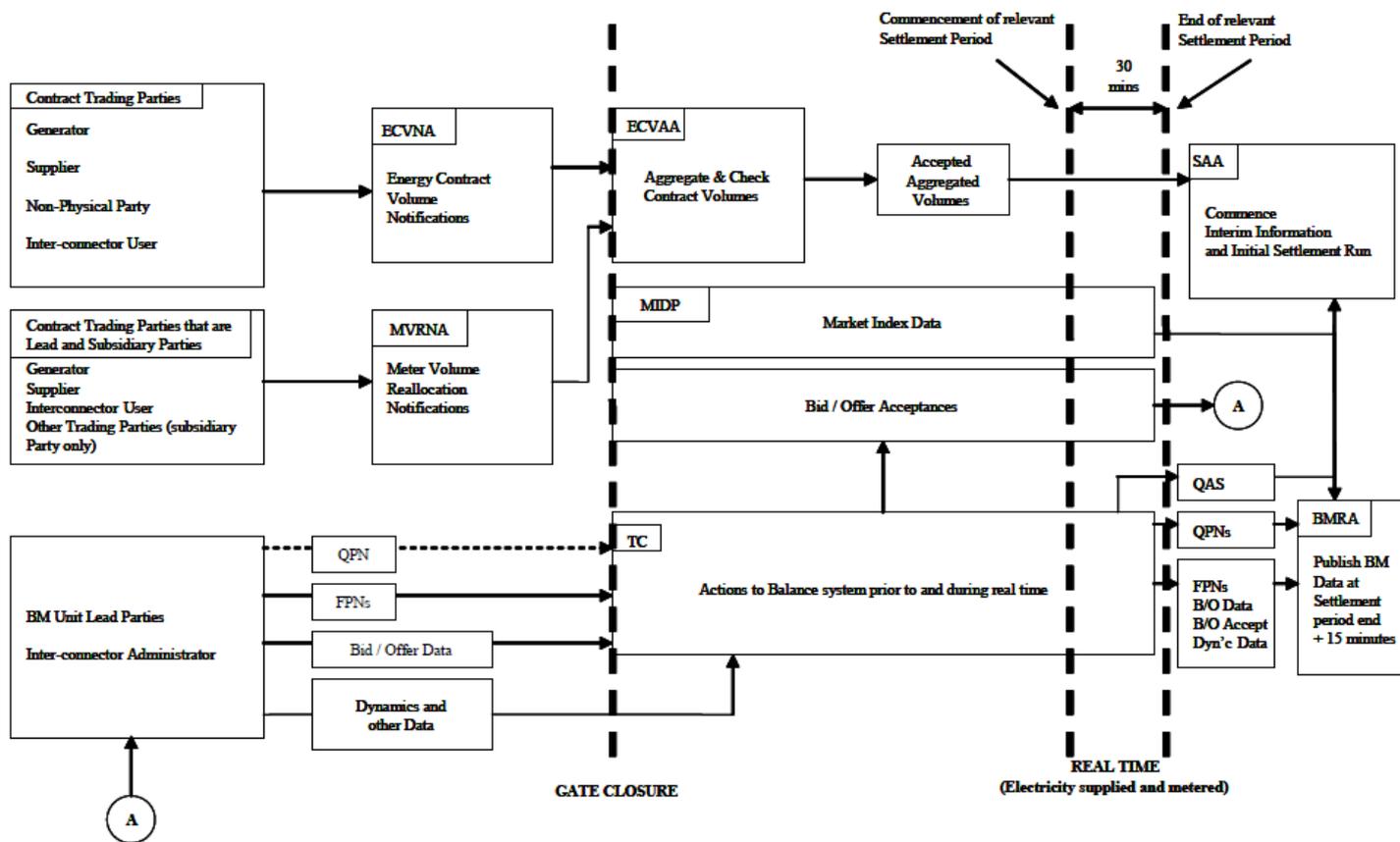
BSC Procedures:

- **Define:**
 - relationships,
 - timescales and
 - interactionsbetween participants and specify the information or other outputs to be exchanged between them as a step by step process
- **All BSCPs contain the following types of information:**
 - The appropriate rules specifying how the information is to be provided;
 - The actual information to be produced;
 - The responsibilities for each process step;
 - Timescales for the delivery of information;
 - Defined interfaces between participants;
 - The format of information (e.g. forms, flow references);
 - The Communications method;
 - The Timescales for Communication;



BSC Procedures:

3.2 Trading Processes prior to Settlement



A Please note: Bid Offer Acceptances are notified back to Physical Parties



BSC Procedures:

INTERFACE AND TIMETABLE INFORMATION

Interim Information and Initial Settlement Timetable and Settlement Reports

Ref	Task	Responsibility	Time-scale
1	Send to ECVAA: <ul style="list-style-type: none">• Energy Contract Volume Notifications	ECVNA	To be received by ECVAA before Gate Closure
2	Send to ECVAA: <ul style="list-style-type: none">• Meter Volume Reallocation Notifications	MVRNA	To be received by ECVAA before Gate Closure
3	Send the following information (for each BM Unit in respect of which the Lead Party is obliged to submit a FPN or has chosen to submit a FPN) to the TC: <ul style="list-style-type: none">• Final Physical Notification Data• Quiescent Physical Notification Data (optional)• Bid / Offer Data (Required only if trading in Balancing Mechanism)• Dynamic Data	Lead Parties	To be received by TC before Gate Closure



Codes of Practice:

The Codes of Practice detail the technical requirements for Metering Systems. Codes of Practice should contain the following information:

- (a) Details of what should be measured and the accuracy levels of the energy measurements;**

- (b) The Metering Equipment Specification and the accuracy of each piece of Metering Equipment to be included in the Metering System; and**

- (c) The details of the defined Metering Points.**



BSC Service Descriptions:

- **setting out requirements as to particular services that are to be provided centrally**
- **describe the service to be provided by the BSC Agents (there is one BSC Service Description for each BSC Agent)**
- **describe the responsibilities of the BSC Agents**

From Electric Contract Volume Aggregation Agent (ECVAA)

Service Description: “...for determining and providing the Settlement Administration Agent with the Account Bilateral Contract Volume for each Energy Account in each Settlement Period,

The ECVAA shall:

- **receive and validate Energy Contract Volume Notifications from ECVNAs**
- **aggregate Energy Contract Volume Notifications and provide Account Bilateral Contract Volumes for each Energy Account and Settlement Period to the Settlement Allocation Agent (SAA)**



BSC Service Descriptions:

ECVAA Inputs:

Input Flow Description	Flow Received from
BSC Party and BSC Party Agent Authentication data	CRA
BM Unit & Energy Account registration data	CRA
ECVNA authorisation request	BSC Trading Party and ECVNA
ECVNA authorisation termination request	BSC Trading Party or ECVNA

ECVAA Outputs:

Output Flow Description	Flow Sent to
ECVAA response	BSC Trading Party and ECVNA
New authorisation Key response	ECVNA or MVRNA
Rejected ECVNA authorisation termination response	BSC Trading Party or ECVNA



The Party Service Line :

Party Service Line includes the following generic requirements:

- (a) audit requirements;**
- (b) data retention requirements;**
- (c) data quality requirements;**
- (d) security control requirements; and**
- (e) change control requirements.**

“functional requirements define what a system is supposed to do whereas non-functional requirements define how a system is supposed to be”



Data Catalogues: is a document containing a catalogue of certain communications, specifying for each such Communication:

- i. the definition of the data items contained in the communication;**
- ii. the format of the Communication;**
- iii. the Communications Medium or alternative Communications Medium by which such Communication may be sent;**
- iv. any other requirements as to the form of the Communication.**



The Communication Requirements Document: contains detailed requirements for sending or receiving Communications between Parties and BSC Agents using Communications Medium(s):

- (a) A description and specification of the Communications Medium;**
- (b) The specification of the systems required by a Party in order to send and receive Communications using the Communications Medium;**
- (f) The basis on which it will be determined whether and when Communications sent using the Communications Medium are deemed to have been received;**
- (g) The arrangements for the recording and logging and acknowledging the sending and receipt of Communications;**



- **The Reporting Catalogue: provides information on the content of reports issued by BSC Agents**
- **It provides the details of what should be contained in the reports**
- **It also includes the provisions of other related reports such as Performance Reports and Exception Reports.**

“Reports from THE ECVAA Notification Report to Parties:

The ECVAA Service shall issue Notification Reports to each Contract Trading Party at the end of each Settlement Day.” *(jump to another document ecvaa_urs_v16.0 Opis procesa)*



Conclusions

- **There are two approaches in regard to determination of roles and assigning them to different parties**
 - A. Define roles and responsibilities, describe processes between actors and then authorize parties to perform these roles and processes**
 - Major document
 - Additional documents to describe processes, communication rules, media for communications
 - B. Determine parties, assign roles to them and request them to develop all other documents**
- **In either of the above two options, the document that determines processes for balancing and settlement must be developed, along with other documents that ensure these processes can be performed.**



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