

 European forum for energy Business Information eXchange	Terms of Reference (ToR) for distributed flexibility project
Version 1, October 19 th , 2017	Approved by ebIX® Forum October 19 th 2017

1. Background

The steady increase in relevance of distributed electricity generation and of e-mobility over the last years affect the requirements for the operational infrastructure and processes and the required market information exchange. The features of distributed generation regard not only its increased sustainability, but also the fact that it is less predictable and controllable. Consequently, it will also increase the interdependence between processes on distribution and on transmission level. The role of aggregation is becoming more defined and the need and use of flexibility products and demand response is rapidly evolving, stimulated by the EU's Clean Energy Package. There is a growing consensus that the use of (often yet unreleased) flexibility is key for an efficient and sustainable electricity system.

Several organizations have initiated own projects to deal with the consequences of the increased relevance of distributed generation and/or e-mobility. In order to use as much of the experiences and knowledge gained this ebIX flexibility project aims at open collaboration with these projects, as for instance with USEF.

2. Goal

Since there are already emerging initiatives of demand side flexibility, it is now time to offer standardised processes, which will accelerate the flexibility market by harmonising the processes. These processes will ease the access for the roles of Aggregators and help System Operators and other market roles to allow flexibility actors in existing and new products.

3. Scope

- Model the processes and data exchange for energy flexibility products, operated either from isolated assets or portfolio based, in the European energy market. As there is already an enormous differentiation amongst products the processes will be modelled on a more abstract level in aim that it can be used for (nearly) all flexibility products. Therefore, the project will not need to deeply invest all details of the various flexibility products;
- Prepare input for necessary expansion, as for Aggregator, of the Harmonised European Role Model from ebIX®, EFET and ENTSO-E;
- Describe how a number of existing demand side flexibility products in European markets fit into the model.

4. Focus

- The model will include the relation between:
 - Party Connected to Grid (Customer) and Aggregator- only high level as this is a commercial relation and process and out of scope of ebIX;
 - Aggregator and its "Flex Customer/Demanding Party";
 - Aggregator and the party responsible for the delivery of energy (BRP or Balance Supplier).
- Topics for modelling:
 1. Roles;
 2. Master Data;

3. High level steps in the processes that will be considered but not necessarily modelled:
 - Offering (Conditions and requirements, and Method);
 - Activation (Conditions and requirements, and Method);
 - Measurement;
 - Settlement (of the energy and the imbalance).
- There are seven complexities to be tackled (taken from USEF):
 1. **Information exchange and confidentiality**
Finding a balance between transparency and confidentiality;
 2. **Transfer of energy**
How to neutralize the position of the Prosumer's supplier and its BRP;
 3. **Relationship between implicit and explicit DR**
How to separate both impacts unambiguously;
 4. **Baseline methodology**
Roles and responsibilities and appropriate baseline methodologies;
 5. **Portfolio conditions**
How to participate in TSO/DSO products through a portfolio;
 6. **Measurement and validation**
Ensuring correct and trustworthy data;
 7. **Rebound effects**
Who is responsible for the possible impact after a Demand Response event.

5. Working structure

Meetings will be hosted by members on a circulating basis.

6. Organization

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