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**Facilitating energy storage to allow high penetration of intermittent renewable energy**

## **D5.5 - SPAIN**

**Minutes of meetings with main stakeholders**



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The work for this report has been coordinated by CENER

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## EXECUTIVE SUMMARY

This report collects the summaries of the meetings held with the main Spanish stakeholders along the last six months of project in order to promote the actions list agreed during the Workshop developed in October 2013 and to achieve some commitments from the decision-makers regarding the support of the energy storage in the regulation.

## 1. Meetings

In this document we summarize the main points discussed regarding the actions to promote the energy storage in Spain, during the meetings with main Spanish stakeholders took place.

### 1.1. Kick-off meeting Inter-Platform Group of Storage

During the Consultation Process in Spain, the creation of a group of experts to support decision makers in their activities regarding storage was identified as a need and during the Workshop in Pamplona the October 10<sup>th</sup> 2013, the establishment of a Group of Experts about Storage paying special attention to the regulatory issues, was included in the action list. The secretariat of the SmartGrids Platform mentioned that some steps were being done in this way and some stakeholders, present at the workshop, showed their interest in participating as well.

The October 28<sup>th</sup> 2013 took place the kick-off meeting of the Inter-Platform Group of Storage to discuss about the structure and the expected goals. The Ministry of Economy and Competitiveness, the Spanish regulator National Committee of Trade and Competitiveness (CNMC) depends on that, and the Ministry of Industry, Energy and Tourism took part in the meeting and declared their involvement in leading the subgroup of Regulatory and Market Framework.

CENER discussed with them (Ms. Maria Sicilia Salvadores, Deputy-Director General for Energy Planning, the Secretariat of State for Energy) about the challenges identified and main results obtained in the stoRE Project related to regulatory issues. They mentioned their intention of taking into account the recommendations for future Inter-Platform Group activities.

CENER discussed as well with Carmen Martin Marino, Head of Electrical Technology and ICT, AENOR (Spanish standardisation organisation). A committee for Electrochemical Storage Systems Standards development has been created in the meanwhile and the kick-off meeting took place the Mars 10<sup>th</sup> 2014. These standards are related to the technical capabilities of energy storage and safety issues which shall facilitate the accomplishment of Network Codes and Administrative Requirements (environmental issues).

CENER has become member of the Spanish Committee and is involved as well in the International Committee IEC TC 120-30: Unit parameters and Testing methods of Electrical Energy Storage (EES) Systems.

### 1.2. Conference Call with National Commission of Trade and Competitiveness (CNMC)

The November 29<sup>th</sup> 2013 CENER had a phone call with Gabriella Nemeth, Subdirection of electrical Energy, CNMC, about the draft "*Real Decreto por el que se regula la actividad de producción de energía eléctrica a partir de fuentes de energía renovables, cogeneración y residuos*" (Royal Decree for electricity generation from renewable energies, cogeneration and waste). She proposed CENER to include comments about storage that could be taken into account in the final version.

As part of the Consultation Process, a Regional Committee with delegates of the regional governments, reviews the drafts and adds comments.

The December 10<sup>th</sup> 2013, CENER comments to the draft were submitted to the Regional Delegate of Navarra Government. The main points were:

- It has been observed in many systems, for example, wind and photovoltaic generation is complementary, but the hybridization of these technologies together and / or cogeneration technologies and waste is not covered by the RD. Inclusion in Article 2 of this option (hybridization) is proposed.
- To avoid confusion and uncertainty about the technology type, the registration of a plant and/or manageability, at least until the resolution of Article 10, we propose for inclusion in Article 2 a paragraph (new section) regarding to electrical energy storage. This section can be divided into subgroups depending on the type of technology (electrochemical, mechanical, chemical, ...) and their use can be defined in association or not with renewable plants.

The aim is to give a legal entity to these technologies so that renewable plants can be classified and recorded in one type or another following the administrative procedures defined in the RD without delays or major complications. In addition, the manageability of these renewable plants with storage will be much easier to certify, as mentioned in Article 10.

- Similarly, in Section 4, we propose an extension of the types of hybridizations including groups considered as unmanaged when combined with storage and control systems. They may be considered more easily manageable and it may ease the legalization and registration of this kind of hybrid systems as microgrids.

### **1.3. Meeting with CDTI (Centre for Industrial Technology Development) and MINECO (Ministry of Economy and Competitiveness)**

One of the actions proposed in the Spanish list is the *Identification of business cases in the Spanish market (economic scenarios) to determine storage support systems, including CO2 footprint (action 3)*. This kind of studies should be developed in the framework of national collaborative projects and with the governmental support.

CDTI manages the funds for R&D projects involving industrial partners and MINECO is responsible of defining the R&D national plans, of managing public funds and of supporting the Technological Platforms, including the new one devoted to storage.

The December 19<sup>th</sup> 2013, during the “Workshop about H2020 and other calls”, CENER discussed with CDTI (M<sup>a</sup> Luisa Revilla) and MINECO (Ana M<sup>a</sup> Lancha) and proposed some potential projects and R&D lines related to storage to be included in future calls and R&D Plans.

Among the projects, we proposed an analysis of the national grid including storage to plan the energy infrastructure needs in the next years (action 5). REE, the Spanish TSO has shown its interest in this proposal.

### **1.4. Conference Call with Inter-Platform Storage Members**

CENER has selected as leader of the Grid Integration and Applications Subgroup of the Platform and March 4<sup>th</sup> 2014 a conference call among members (26 including utilities, DSOs, TSO and divers end-users) took place. The aim was to define the activities of the group and we can point out the development of a document concerning the State of the Art of the Storage in Spain taking into account all aspects as regulation, business models, benefits and challenges, all the technologies involved and so on.

The aim of the document is to be used as basis by Ministries and decision-makers for further plans

and strategies development. It is expected to issue at the end of May 2014.

## 1.5. Workshop “Storage Technologies and PV energy”

The April 23<sup>rd</sup> 2014, a Workshop about the association of energy storage systems and PV energy took place in Barcelona (Spain) promoted by **SECARTYS** (Spanish Association for Internationalization of Power Electronics and ICTs companies) and **SOLARTYS** (Spanish Association for Internationalization and Innovation of Solar Companies). Results of stoRE were presented and discussed with the main solar energy stakeholders who agree with the lack of regulation for storage with PV systems and are working to look for alternative paths of hybrid plants legalization in Spain.

## 2. Achievements

The Spanish actions list included the following:

1. *Coding storage technologies in the Spanish Regulation.*
2. *Defining a simplified methodology in administrative procedures for demonstration/R&D projects development.*
3. *Identification of business cases in the Spanish market (economic scenarios) to determine storage support systems, including CO2 footprint.*
4. *Experts Panel / technological platform establishment in communication with the CNMC*
5. *Preparation of a Renewable Energy Deployment Plan including storage and energy infrastructures*

Main achievements in Spain are concerning the establishment of the Spanish Technological Platform for Storage (nº 4) that includes the Ministries (Energy and Innovation) as members and the activities foreseen for this experts group.

We can point out as well the contribution to the new expected regulation of renewables and cogeneration to include storage in the future Royal Decree-Law (nº 1) and progress regarding the nº 2 as some demo projects developers in Spain will contribute with the administrative procedures to use as basis.