

# **SuSTAINABLE PROJECT**

**Smart Distribution System Operation for Maximizing the  
Integration of Renewable Generation**



## **WORK PACKAGE 9**

**First Global Stakeholders  
Workshop and Conference (D9.3)**

**Lead beneficiary: EDP Distribuição**

**April 2014**



**Grant Agreement no: 308755**



## Table of content

<b>1 OVERVIEW AND OBJECTIVES .....</b>	<b>4</b>
Dissemination strategies .....	5
<b>2 DISSEMINATION INSTRUMENTS.....</b>	<b>7</b>
2.1 Cooperation with other projects .....	9
2.2 Agenda for the 1 <sup>st</sup> Global Stakeholders Workshop and Conference.....	10
2.3 Dissemination Material present at the 1 <sup>st</sup> Global Stakeholders Workshop and Conference.....	10
2.3.1 Poster Session.....	10
2.3.2 Flyers .....	11
2.3.3 Facebook Project Page ( <a href="http://www.facebook.com/sustainableproject">www.facebook.com/sustainableproject</a> ) .....	13
2.4 Press Release for the 1 <sup>st</sup> Global Stakeholders Workshop and Conference.....	14
2.5 Attendees for the 1 <sup>st</sup> Global Stakeholders Workshop and Conference .....	15
2.7 Presentations for the 1 <sup>st</sup> Global Stakeholders Workshop and Conference: .....	17

### List of Figures

Figure 1: Screenshot of the SuSTAINABLE D9.3 .....	8
Figure 2: Screenshot of the SuSTAINABLE Website.....	9
Figure 3: Screenshot of the SuSTAINABLE Newsletter.....	9
Figure 4: Screenshot of SuSTAINABLE 1 <sup>st</sup> Workshop & Conference Agenda.....	11
Figure 5: Screenshot of SuSTAINABLE Poster.....	12
Figure 6: Screenshot of SuSTAINABLE Flyer.....	13
Figure 7: SuSTAINABLE Press Release for 1 <sup>st</sup> Global Stakeholders W&C.....	14

### List of Tables

Table 1: Timetable of the project. ....	7
Table 2: Current status of planned academic conference participations.....	15

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# 1 Overview and Objectives

The SuSTAINABLE project is formed by a multi-disciplinary group composed by DSOs, industry partners and universities/research institutions. Each partner has a unique participation in the project that gathers the knowledge on power system planning and operation by the SOs, knowledge on regulatory issues and on the development of advanced tools and functionalities for smart grids by the universities/research institutions.

In short, the exploitation plan can be described as follows:

- During the project: dissemination of advanced tools and functionalities for power systems planning and operation for SOs through meetings, seminars, publications and direct contacts.
- Specific workshops: organization of workshops with the participation of project partners and external international participants.
- After the project: development of pre-prototype tools, knowledge transfer to regulatory bodies and plans for replicability and scalability of the SuSTAINABLE concept.

The main aim of the universities and research institutions involved in the SuSTAINABLE project (INESCP, UoM, ICCS, TUB and Comillas) will be to use this project in order to develop their knowledge on the development of advanced tools for power distribution systems planning and operation and increase their capacity to assist network operators and utilities in dealing with large scale integration of DER, including RES in particular. The participating universities will also profit from the knowledge gained to provide better education and training for future electrical power engineers.

The main aim of the DSOs involved in the project (EDP and HEDNO) will be to develop their knowledge on the integration and impacts of large scale deployment of DER and the required changes that will have to be made to both operation practices and new planning schemes. Furthermore, the validation of the tools and solutions derived in the project will foster the development of prototypes. This will also enable reviewing the relevant regulatory framework for smart grid deployment.

As an automation supplier (SCADA system, RTU, substation automation and smart grids equipment manufacturer), EFACEC's experience on smart grids projects and specifically on the development and implementation of the InovGrid in Portugal will be extremely useful when integrating new functionalities and equipment on this existing infrastructure. The results will be integrated on current R&D activities undergoing at the Automation Business Unit with the objective of industrializing the developed methodologies and algorithms originated by the SuSTAINABLE project. EFACEC will benefit from the results which can be implemented both on the DMS system and on the substation RTUs

developed in-house, respecting the architecture and the technical requirements defined on WP1.

### Dissemination strategies

For the exploitation of the results the consortium will develop, during the project, actions that aim at disseminating information to network operators, regulators and potential smart grid agents through:

- Free access to uploaded final deliverables on the SuSTAINABLE website allows external and interested parties to follow obtained results.
- Interested parties will have the opportunity to subscribe in a mailing list to be informed about uploads and announcements.
- Bookmark functions that will enhance the communication process.
- Publication of the technological and scientific results that support the SuSTAINABLE concept on integration of DER over real test systems.
- Presentation of the main technological achievements in international Conferences, such as CIGRE, CIRED, IEEE, PSCC, Power Tech Conferences, either as technical papers or thorough dedicated panel sessions
- Participation of the Consortium members in various international Advisory Groups and Task Forces that are organized within EDSO for Smartgrids , EURELECTRIC, CIGRE, CIRED, IEEE, etc.
- Direct contacts that come from previous EU research projects covering a similar research question: MICROGRIDS, MORE-MICROGRIDS, MERGE, ...
- Organization of General and technical Workshops at different partner institutions
- Organisation of panel sessions at key conferences
- Development of an Internet interactive page with a detailed description of the project. The emphasis will be given to the benefits of active network management in several real test sites with large penetration of DER.

Moreover, the participating organizations are actively involved in international Working Groups and Task Forces in the framework of EDSO for Smartgrids , EURELECTRIC, CIGRE (Conférence Internationale des Grands Réseaux Electriques a Haute Tension), CIRED (Congrès International des Réseaux Electriques de Distribution) and IEEE (Institute of Electrical and Electronic Engineers), the largest International Organizations in the area of power systems. Indicatively, collaboration among the participating organizations in the following on-going related CIGRE Working Groups.

In addition, panel sessions at prestigious conferences such as CIGRE, CIRED and IEEE events will be organized and used as a means of disseminating the major breakthroughs identified within the course of the project and address the applicability of the overall SuSTAINABLE concept to other systems.

Various key persons of the organizations participating in the project are, active members of international Organizations, e.g. Professors N. Hatzigargyriou, J. Milanovic, J. Peças Lopes, Kai Strunz, and lead international TF and WG within CIGRE and CIRED. Several other project participants are members of the Editorial Committee, of the first peer reviewed international journal “Distributed Generation”. Prof. Peças Lopes is one of the members of the executive board of EES/UETP (one of the world leading advanced training consortia in power systems) and may contribute to promote these concepts and technologies through the organization of advanced training in this domain. This involvement ensures a wide dissemination of the developed R&D activities at European level and the enhancement of European presence at international level.

In recent years, the European electricity supply industry has had difficulties in attracting high calibre young engineers and scientists because of the perception that the technical issues are not sufficiently challenging. The consortium believes that highlighting the ambitious and cross-disciplinary work that will be done as part of this project represents an excellent opportunity to demonstrate to young engineers and scientists that this perception is incorrect and that the technical challenges that they would face were they to join the electricity supply industry would be substantial and rewarding. We therefore propose to supplement the normal scientific dissemination activities by publications targeting broader and younger audience.

	<b>Event/Deliverable</b>	<b>Expected Date</b>
	Dissemination and Communication Plan	March 2013
	Website for the project	March 2013
	First Global Stakeholders Workshop and Conferences	December 2013
	Second Global Stakeholders Workshop and Conferences	December 2014
	Final Convention	December 2015
	Modalities for interaction during the course of the project	March 2013
	Short general description of use cases and process for demonstration of the proposed solutions	June 2014
	Short report on exchanged experiences on demonstrations and validation of the proposed solutions	December 2015

**Table 1: Timetable of the project**

## 2 Dissemination Instruments

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D9.3	First Global Stakeholders Workshop and Conferences	1	4.00	R	PU	12

**Figure 1: Screenshot of the SuSTAINABLE D9.3**

The objective of this WP is to disseminate the SuSTAINABLE project in a consistent and ample way, so that all interested parties, stakeholders and decision makers are informed at all times about progress,

findings and results. Dissemination is key to ensure maximum usefulness of SuSTAINABLE concept achievements, throughout other regions and projects across Europe. This should ensure a smoother path for the implementation of the results of this project. To achieve wide dissemination of the results of the project within the industry, the consortium will work with CIRED/CIGRE and the organizing committee of key international conferences to put together panel sessions to present and debate the ideas, concepts and methods in front of a large technical audience.

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is incorrect and that the technical challenges that they would face were they to join the electricity supply industry would be substantial and rewarding. We therefore propose to supplement the normal scientific dissemination activities by publications targeting broader and younger audience.

Workshops and conferences will be a means to further spread and share the knowledge obtained at the different stages of the SuSTAINABLE project, as well as, increase the involvement of all stakeholders.

Several general (dedicated to overall aims and objectives of the project) and themed (dedicated to results achieved in specific WPs) workshops, round tables and panel sessions will be organised both at individual partner institutions and at major international conferences. They will focus on different aspects of the project: technical, business, consumers, regulatory, etc.

Namely, specific panel sessions will be organized at major international conferences such as CIGRE, CIRED, IEEE PES Innovative Smart Grid Technologies, PSCC and IEEE PowerTech. Furthermore, advanced training courses within EES-UETP framework will be organized by the partners. The roadmap for replication and scalability defined in WP7 will provide input to the definition of the workshop agenda for DNOs, TSOs and Regulators that will provide a clear pathway towards the large-scale implementation of SuSTAINABLE concept across EU.

The First Global Stakeholders and Workshop and Conference was announced at the Family of Project's website:

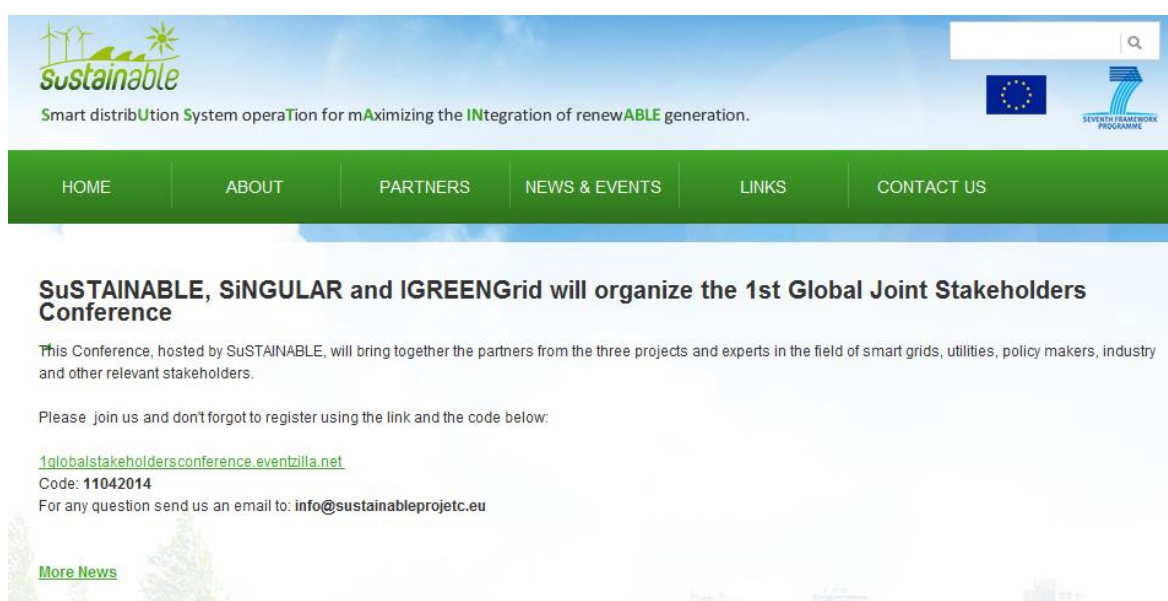


Figure 2: Screenshot of the SuSTAINABLE website

The First Global Stakeholders and Workshop and Conference was announced at the 4<sup>th</sup>, SuSTAINABLE Newsletter:

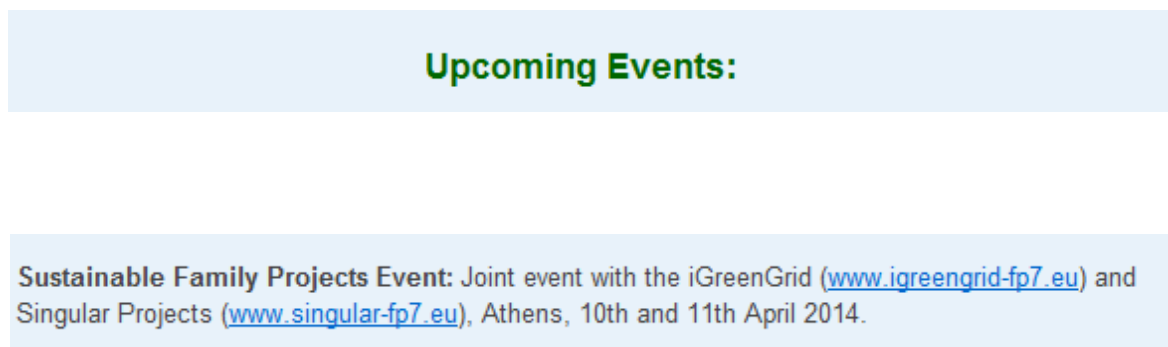


Figure 3: Screenshot of the SuSTAINABLE Newsletter



Task 9.3 – Workshops and Conferences Organization (Task leader: INESCP; EDP, UoM, TUB, ICCS,

COMILLAS, EFACEC, HEDNO)

Workshops and conferences will be a communication channel for further spread and share the knowledge obtained at the different stages of the SuSTAINABLE project, as well as, increase the involvement of all stakeholders.

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Namely, specific panel sessions will be organized at major international conferences such as CIGRE, CIREN, IEEE PES Innovative Smart Grid Technologies, PSCC and IEEE PowerTech. Furthermore, advanced training courses within EES-UETP framework will be organized by the partners. The roadmap for replication and scalability defined in WP8 will provide input to the definition of the workshop agenda for DNOs, TSOs and Regulators that will provide a clear pathway towards the large-scale implementation of SuSTAINABLE concept across EU. A final workshop will be held in Évora to present the main outcomes of the project.

An additional activity that will be developed inside this task is the interaction with other projects that may be funded under the same topic 7.1.1., and will allow to align developments and share experiences between the

different projects. Three short reports, which will be jointly produced by the different projects, will be delivered addressing: 1) information about the modalities for interaction during the course of the project, 2) description of use cases and process for demonstration of proposed solutions and 3) exchanged experiences on demonstration and validation of the proposed solutions.

## 2.1 Cooperation with other projects

The SuSTAINABLE project has already established contacts and is cooperating with several other projects at national and international level. This is done by giving mutual project presentations, participating in events and following up the work closely (including the participation in other projects Stakeholders Committees and Advisory Boards). Furthermore partners of SuSTAINABLE participate actively also in other initiatives and therefore make sure that the best results are cross-transferred. Examples of such projects include: iGreenGrid, Singular, SKYNET, GRID4EU, ADVANCED, etc. Moreover, in order to promote common dissemination events among all projects under 7.1.1 topic, some adjustments have been made in the original dissemination events schedule. Deliverable 9.6, which is a common deliverable, includes the information related to projects joint-events and dissemination activities.

## 2.2 Agenda for the 1<sup>st</sup> Global Stakeholders Workshop and Conference

### 1<sup>st</sup> Global Joint Stakeholders Conference



## AGENDA



09h30	Opening	Mr. Georgios Kollias (HEDNO Chairman & CEO) Mr. Pedro Godinho Matos (SuSTAINABLE Coordinator)
09h45	Key Note Speaker	Mrs. Irene Bonvissuto (European Commission)
10h15	<u>Projects Presentation</u> - iGREENGrid - SINGULAR - SuSTAINABLE	Mr. Jesus Varela Prof. João Catalão Mr. Pedro Godinho Matos
11h00	Coffee Break + Poster Session	Projects Representatives
11h30	<u>Panel Session</u> Moderator: Prof. Hatziargyriou  DSO role towards the achievement of Europe's Energy Targets <ul style="list-style-type: none"> <li>Contributions of iGreenGRID, SINGULAR and SuSTAINABLE</li> <li>Which RES are more promising? (Micro Generation, Electrical Vehicles, Storage, ...)</li> <li>2010 vs. 2020 DSO – differences and similarities</li> <li>Present and Future Role of DSOs</li> </ul>	<u>Panelists:</u> Mr. Jesus Varela (iGREENGrid Project) Mr. Luís Seca (SuSTAINABLE Project) Prof. Anastasios Bakirtzis (SINGULAR Project) Mr. Per-Olof Granström (EDSO4SG) Mr. Carlos Costa (evolVDSO EU Project)
12h45	Closing Remarks	Prof. Hatziargyriou
13h00	End of Session	

Figure 4: Screenshot of the SuSTAINABLE Agenda

## 2.3 Dissemination Material present at the 1<sup>st</sup> Global Stakeholders Workshop and Conference

In the following, the SuSTAINABLE poster and hand-out is presented. Both are used to visualize the project's research topics at various events. They have already been deployed at several occasions and have received positive feedback.

### 2.3.1 Poster Session

A poster for dissemination of SuSTAINABLE project has already been designed and presented in a couple of conferences, such as, InnoGrid2020+ and Global Smart Grid Federation event in Brussels.



Figure 5: SuSTAINABLE Poster

### 2.3.2 Flyers

A hand-out describing the SuSTAINABLE key objectives and overview were distributed.

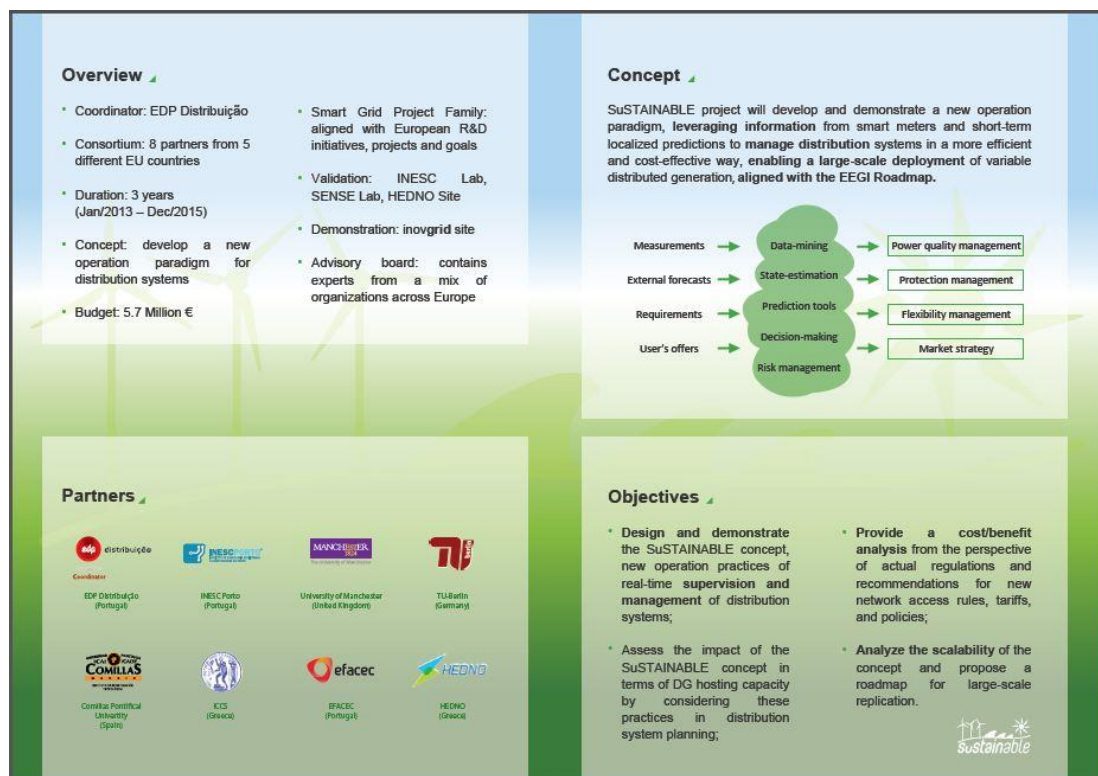


Figure 6: SuSTAINABLE Flyer





## 2.4 Press Release for the 1<sup>st</sup> Global Stakeholders Workshop and Conference

### **First Global Stakeholders Conference of European Research Projects on Smart Grids: iGREENGrid, SuSTAINABLE and SiNGULAR**

On April 11th 2014, the SuSTAINABLE Project, Coordinated by EDP Distribuição, organized the 1st Global Stakeholders Event, hosted at HEDNO's headquarters in Athens. This joint-meeting, concluded the meeting procedures of significant European Research Projects (Sustainable, iGREENGrid and SiNGULAR) under the 7th Project Framework covering the research area of Smart Grids and brought together experts in the field of smart grids, utilities, policy makers, industry and other relevant stakeholders.

The Research Projects are focusing on the development and pilot implementation of Smart Grid applications by the participating DSO Companies of France (ERDF), Italy (ENEL), Spain (Iberdrola and Union Fenosa), Germany (RWE), Austria (EAG and SAG), Portugal (EDP Distribuição, EDA) and Greece (HEDNO) in cooperation with Universities, Research Centers and industrial partners.

Apart from representatives of the Project partners, among the participants in the proceedings of the joint meeting was **Irene Bonvissuto** on behalf of the Research Office of **European Commission**, **Mr. Per-Olof Granström** as **Secretary General of EDSO for Smart Grids**, researchers and engineers of Distribution Companies and Universities.

The meetings have concluded about the beneficial impact of Smart Grids on consumers and on the quality of distribution grids' operation; the outcome of the meetings indicates also the requirement for regulatory support and for the provision of incentives for the expansion of grids.

The **President and CEO of HEDNO, Mr. Georgios Kollias**, during his opening speech has referred to the three Research Projects as decisive contributions to HEDNO targets of *"Transferring Smart Grids vision to reality"*.

Mr. Per-Olof Granström has mentioned the leading role of DSOs within the development of Smart Grids and the achievement of energy and climatic targets posed by EC, while facilitating the increased RES generation and the energy saving.

He has also highlighted the DSOs' need for enhanced responsibilities for the smart meters installations and for the metering data handling; the adaptation of Grid Codes is required according to the current European-wide consultation.

SuSTAINABLE consortium would like to thank all participants their contributions for the lively discussion during the conference, and congratulates itself with the very important outcomes. All partners are looking forward to the following joint meetings and further discussion within the European family of projects.

**Figure 7: SuSTAINABLE Press Release for 1<sup>st</sup> Global Stakeholders Workshop & Conference**

## 2.5 Attendees for the 1<sup>st</sup> Global Stakeholders Workshop and Conference

From all Europe, more than 70 Participants:

Participant Name	Organization
Anastasios Bakirtzis	Aristotle University of Thessaloniki
Andreas Abart	Netz OOE
Andreas Ntomaris	AUTH
Andreas Vlachos	RAE
Antiopi Gigantidou	Hellenic Electricity Distribution Network Operator S.A.
Antonio Carrapatoso	Efacec Engenharia e Sistemas S. A.
Antonios Tsikalakis	AUTH/HEDNO
Aris Dimeas	ICCS/NTUA
Athanasios Vasilakis	ICCS-NTUA
Aymeric Billet	ERDF
Benoit Bletterie	Austrian Institute of Technology
Carlos Costa Rausa	Enel Distribuzione
Christos Simoglou	Aristotle University of Thessaloniki Greece
Claudio Monteiro	Smartwatt
Daniel Henriquez	Instituto Tecnológico de Canarias (ITC)
Daniele Clerici	RSE
David Rubio	IBERDROLA
Despina Koraki	TU Berlin
Despina Koukoula	ICCS
Diogo Lopes	EDP
Dimitri Papakonstantinou	Hellenic Electricity Distribution Network Operator S.A.
Dimos Silvestriadis	Hellenic Electricity Distribution Network Operator S.A.
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Eliza Loucaidou	Deloitte Limited
Emmanuel Thalassinakis	HEDNO
Eva Alvarez	GAS NATURAL FENOSA
Evangelos Kardakos	AUTH
Fernando Salazar	Gas Natural Fenosa
Filipe Mendonça	EDA - Electricidade dos Açores S.A.

Gareth Bissell	Enel
George Messinis	ICCS
George Seritan	University POLITEHNICA of Bucharest
Georgios Kollias	Hellenic Electricity Distribution Network Operator S.A.
Gianfranco Chicco	Politecnico di Torino Italy
Goncalo Lacerda	EDP Distribuição
Hara Georgitsi	Hellenic Electricity Distribution Network Operator S.A.
Ioannis Papageorgiou	Electricity Authority of Cyprus
Irene Bonvissuto	European Commission
Javier Contreras	University of Castilla - La Mancha
João Lopes	INESC PORTO
Joao Catalao	UBI (SINGULAR)
Jose Oyarzabal	Tecnalia
Kai Strunz	TU Berlin
Kostas Andreadis	Hellenic Electricity Distribution Network Operator S.A.
Kostas Kaousias	Hellenic Electricity Distribution Network Operator S.A.
Kyriaki Serti	AUTH
Luis Seca	INESC PORTO
Luis González Sotres	IIT-COMILLAS
Marco Rossi	RSE
Maria Kouveletsou	Hellenic Electricity Distribution Network Operator S.A.
Maria Nikoli	Aristotle University of Thessaloniki
Maria Sebastian Viana	ERDF
Martinez Luis	Concepto Sociologico. SINGULAR
Miguel Asensio	UCLM
Monica Ioannidou	Deloitte Limited
Nikolaos Paterakis	Universidade da Beira Interior
Nikos Hatziaargyriou	ICCS/NTUA
Nuno Silva	EFACEC
Ozan Erdinc	Arel University
Pablo Frias	Institute for Research in Technology Universidad Pontificia Comillas
Pandelis Biskas	Aristotle University of Thessaloniki
Panos Kotsampopoulos	National Technical University of Athens
Pantelis Kourelis	Hellenic Electricity Distribution Network Operator S.A.
Pedro Godinho Matos	EDP
Per-Olof Granström	EDSO4SG
Pierre-Guy Therond	EDF ENERGIES NOUVELLES
Remy Garaude Verdier	ERDF - GRID4EU Project
Radu Porumb	Universitatea Politehnica din Bucuresti
Salvador Suarez	Instituto Tecnológico de Canarias (ITC)
Serdar Kadam	AIT Austrian Institute of Technology



Stathis Tselepis	CRES
Stavroula Maglavera	UBI
Stefanos Kokkinelis	Hellenic Electricity Distribution Network Operator S.A.
Stylianios Vagropoulos	Aristotle University of Thessaloniki
Vasileios Kleftakis	ICCS-NTUA
Vera Nunes	EDP

**Table 2: List of Participants at the 1<sup>st</sup> Global Stakeholders Workshop & Conference**

## 2.7 Presentations for the 1<sup>st</sup> Global Stakeholders Workshop and Conference:

Presentations available at:

<http://www.sustainableproject.eu/NewsEvents/News/1stGlobalJointStakeholdersConference.aspx>

