



**Boosting EU-US Cooperation in Energy Research:  
Opportunities and Prospects  
A Joint EU-US workshop**



September 2012



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## Executive summary

The aim of this deliverable (D 3.4, Workshop Report) is to provide a summary of the Joint EU-U.S Energy Workshop provisioned in Task 3.3.1 (Workshops on U.S. research/innovation programmes).

The aim of Task 3.3.1 was to organize three workshops (or similar events) at major European science and technology meetings to present expert speakers on the U.S. scientific research funding structure. In the case of the *Joint EU-US Energy Workshop* there was a special demand from the DG R&I of the European Commission to bring together stakeholders in the energy research field both from Europe and the U.S. in the United States.

The event aimed at boosting the cooperation of EU-U.S. lab-to-lab relations with the Joint Programmes of the European Energy Research Alliance (EERA) and corresponding U.S. labs; identifying the common fields of interests for cooperation with the EERA Joint Programmes, U.S. Department of Energy and Department of Energy Labs, and other interested US agencies; supporting and facilitating the creation of new EU-U.S. research lab-to-lab partnerships and collaboration and finally establishing links, where appropriate, with the on-going cooperation in the framework of the EU-U.S.-Energy Council.

On 18 September 2012, after a short organization period during which the Directorate General for Research and Innovation (DG R&I), the American Association for the Advancement of Science (AAAS), the U.S. Department of Energy and Bay Zoltán Nonprofit Ltd. for Applied Research joined their forces, twenty stakeholders in the field of energy research met at the AAAS headquarters in Washington, DC, U.S. The symposium agenda was designed to explore possible areas of mutual interest and cooperation for the European Energy Research Alliance (EERA Joint Programmes and their U.S. counterparts. By the end of the day several tangible outcomes were reached.

## Workshop

### Background information

On 18 September 2012, twenty stakeholders in the field of energy research met at the AAAS headquarters in Washington, DC, U.S. to identify possible areas of mutual interest and cooperation. During the event named *Boosting EU-US Cooperation in Energy Research: Opportunities and prospects: A joint EU-US workshop* four thematic sessions and overviews by both from the EU and the U.S. parties helped to discover future possibilities in joint energy research.

### Objectives of the workshop

The four main objectives of the event identified by the stakeholders were organized around two main areas: identification of common fields of interest between the EU and the U.S. and lab-to-lab collaboration.

- 1) Identification of common interests for cooperation with the EERA Joint Programmes, DOE and DOE Labs, and other interested U.S. agencies
- 2) Establishing links, where appropriate, with the on-going cooperation in the framework of the EU-U.S. Energy Council
- 3) Support and facilitation of the creation of EU-U.S. research lab-to-lab partnerships and collaboration
- 4) Boost cooperation EU-U.S. lab-to-lab cooperation with the Joint Programmes of the European Energy Research Alliance (EERA) and corresponding U.S. labs

The day was split into opening and closing sessions, an open discussion in general on common research possibilities and their obstacles and four clearly defined thematic sessions on Cooperation on Materials for Energy, Cooperation on Carbon Capture Use and Storage, Cooperation on Smart Grids and Cooperation on Ocean Energy to bring together experts in the perspective fields of energy research and to start a discussion among them.

- 1) Presentation on the status of EU-U.S. energy research cooperation, prospects for Horizon2020, U.S. energy research priorities
- 2) Presentation of EERA and its Joint Programmes; Presentation of the respective U.S. programmes; Proposals for cooperation and next steps
- 3) Presentation on Materials for Energy
- 4) Presentation on carbon Capture Use and Storage
- 5) Presentation on Smart Grids
- 6) Presentation on Ocean Energy
- 7) Networking and discussion on possible collaboration

The event started at 9.00 and ended at 17.30 local time.



## Activity details

The event was opened and moderated by Rositsa Petrova (Directorate-General for Research and Innovation) and Jeff Skeer (U.S. Department of Energy). After Jeff Skeer's welcoming words and his defining the objectives for the day Rositsa Petrova provided information about the priorities for 2013 in the new workplans for FP7. She also spoke about the energy plans of the European Union in a greater context mentioning the Energy Roadmap. Finally, she emphasized the main features of Horizon 2020 concerning energy research. According to the figures she provided, the U. S. is still ranked first in funding. Candice Boudet from the EERA introduced the organization and the work structure behind it.

The four thematic sessions provided an excellent opportunities for all parties to introduce themselves and their works and also to identify some areas of common interest. Each session started with the presentation of the EU expert and continued with that of the U.S. colleague, followed by a short discussion to reach tangible results or outcomes.

The four thematic sessions:

### 1.) Materials for Energy

- Speakers: Candice Boudet (EU), Linda Horton and Diana Bauer (U.S.)
- Outcomes: The parties agreed on organizing a common EU-U.S. workshop on materials sciences and on meeting in Brussels in 2013 as part of an information day on energy. They also agreed on the exchange of some resources for research.

### 2.) Carbon Capture Use and Storage

- Speakers: Andreas Ehinger (EU), John Panek (U.S.)
- Outcomes: The parties agreed on sharing some research result (knowledge sharing), on organizing study tours to some of the U.S. research centers nationwide, and on inviting the EU experts to a conference on Carbon Capture Use and Storage in Pittsburgh in 2013.

### 3.) Smart Grids

- Speakers: Luciano Martini (EU), Dan Ton (U.S.)
- Outcomes: The parties agreed on continuing to work along some already existing common research lines. This cooperation was temporarily stopped from the U.S. side due to reorganization but now it was confirmed again. A series of videoconferences (with set dates already) was also planned in order to facilitate the cooperation.

### 4.) Ocean Energy

- Speakers: Henry Jeffrey (EU), Michael Reed (U.S.)



- Outcome: The parties agreed on organizing a series of videoconference sessions to extrapolate on further possibilities for cooperation.

The discussion for each field of research continued in a debate about the obstacles for cooperation. It was monitored and partly moderated by Errol Levy, First Secretary for Research and Innovation of the Delegation of the European Union to the United States. He also provided his professional pieces of advices to the participants.

The event was concluded by Jeff Skeer, who summarized the outcomes and thanked the participants for taking part in the event.



## Conclusion

The event was considered successful because of its tangible outcomes and results. Experts in all four thematic fields agreed on setting up either a series of videoconference sessions to continue the dialogue on the common fields of interests or research lines or to visit each other's institutions in order to find out more about each other's work and results. The third common way of continuing the workshop was to agree on visiting Europe-wide or U.S.-based professional events, such as information days or conferences.

The success of the event is partly due to the fact that the workshop was organised with the support of the EC DG D&I in Europe and the DOE in the U.S. and was promoted by joining the forces of all parties.

## Annexes

### Annex 1. Agenda of the event



**Boosting EU-US Cooperation in Energy Research: Opportunities and Prospects**  
**A joint EU- US workshop**  
18 September 2012  
Washington, DC  
9:00-18:30

AAAS Headquarters - 2<sup>nd</sup> Floor Conference Center  
1200 New York Avenue NW, Washington, DC 20005  
(Entrance at the corner of 12<sup>th</sup> and H streets)

### AGENDA

#### 1) Opening Session (9:00-9:45): Setting the Scene

- The Status of EU-US energy research cooperation, EU priorities in energy research for Horizon 2020 (Rositsa Petrova, European Commission)
- The European Energy Research Alliance (EERA): State of Play and Future Prospects (Candice Boudet, EERA Secretariat)
- U.S. Department of Energy: Areas of Potential Interest for Energy Technology Cooperation (Jeff Skeer, U.S. DOE)

#### 2) Thematic Session 1 (9:45-10:00): Opportunities for Cooperation on Materials for Energy:

- Progress and Perspectives for Cooperation by the EERA Joint Programme on Advanced Materials and Processes for Energy Application (Candice Boudet)
- Review of Materials Science Activities at U.S. DOE (Linda Horton, Diana Bauer)
- Discussion of Potential Areas of Mutual Interest for Cooperation on Materials (with a particular focus on storage technologies for power grids and on critical materials)

#### 3) Thematic Session 2 (11:15-12:30): Opportunities for Cooperation on CCUS

- Progress and Perspectives for Cooperation by the EERA Joint Programme on CCS (Andreas Ehinger)
- Review of Carbon Capture Use and Storage Activities at U.S. DOE (John Panek)
- Discussion of Potential Areas of Mutual Interest for Cooperation on CCUS

***Lunch break (12:30-14:00)***



**4) Thematic Session 3 (14:00-15:15 : Opportunities for Cooperation on Smart Grids**

- Progress and Perspectives for Cooperation by the EERA Joint Programme on Smart Grids (Luciano Martini)
- Review of Smart Grids Technology Activities at U.S. DOE (Dan Ton)
- Discussion of How to Advance Ongoing Cooperation on Smart Grids (with a particular focus on planning digital videoconferences to follow up in the four areas of cooperation agreed)

**5) Thematic Session 4 (15:15-16:30): Opportunities for Cooperation on Ocean Energy**

- Progress and Perspectives for Cooperation by the EERA Joint Programme on Ocean Energy (Henry Jeffrey)
- Review of Water Power Technology Activities at U.S. DOE (Michael Reed)
- Discussion of Potential Areas of Mutual Interest for Cooperation on Ocean Energy

**6) Cross-participation in the EU and US Research Programmes: State of Play, Obstacles, New Mechanisms and Prospects (16:30-17:15)**

- Input and presentations by the European Commission/EERA and U.S. agencies

**7) Closing Remarks and Conclusions (17:15-17:30)**

## Annex 2. List of participants

### **Boosting EU-US Cooperation in Energy Research: Opportunities and Prospects**

#### **A Joint EU-US workshop**

American Association for the Advancement of Science (AAAS)  
Washington, DC  
18 September 2012

#### **List of Participants**

##### **Overview**

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##### **Materials**

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## **Ocean Energy**

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## Annex 3. List of abbreviations

<b>Abbreviation</b>	<b>Full Term</b>
AAAS	American Association for the Advancement of Science
BZN	Bay Zoltán Alkalmazott Kutatási Közhasznú Nonprofit Kft. (Bay Zoltán Nonprofit Ltd. for Applied Research)
CCUS	Carbon Capture Use and Storage
DG R&I	Directorate-General for Research and Innovation (European Commission)
DOE	U.S. Department of Energy
EERA	European Energy Research Alliance
EU	European Union
TETALAP	Tudományos és Technológiai Alapítvány (Hungarian Science and Technology Foundation)
U.S.	United States of America