

The most important renewable marine energy event in southern Europe

BILBAO 20/24 APRIL 2015 BILBAO EXHIBITION CENTRE

www.bilbaomarinenergy.com

International sectorial meetings

Bilbao Marine Energy Week offers a unique framework for meetings on European projects, sectoral encounters, industrial assemblies, etc.

If you are interested in organising a meeting of this kind prior to your participation at the BMEW conference, please contact: bmew@bec.eu

Meetings confirmed to date:

• 20 April. FP7 Suprapower project meeting and workshop.

SUPRAPOWER (www.suprapower-fp7.eu) is an EU FP7 programme co-funded research project that aims to a high power, lightweight and reliable superconducting generator for large offshore wind turbines.

The 20th April 2015, during the side event of the Bilbao Marine Energy week, SUPRAPOWER will hold its General Assembly meeting to review the progress of the project.

The same day in the afternoon, it will also take place a workshop about high power electric generators for cost reduction of offshore wind. It aims to provide an overview from the industry and research institutions about trends towards high power wind turbines based on both conventional and superconducting electric generators.

For further information and to register to the workshop please contact Mr. Iker Marino (iker.marino@tecnalia.com).

• 20 April. APPA-Marina Assembly, Association of Renewable Energies-Marine Section.

More information: www.appa.es marina@appa.es

On the occasion of BMEW2015, APPA Marina will held its Ordinary General Assembly on the 20th April where our members will participate in order to review the situation of the marine energy sector, discuss the many common interests and define the action plan for the coming months.

APPA Marina, consisting of almost twenty members, emerged in 2006 within the Spanish Renewable Energy Association (APPA) for the purpose of bringing together the stakeholders involved in the field of marine energy and work collaboratively to harness the great potential of the seas in our country.

• 20 April. RICORE project meeting.

RICORE project aims to ensure the development of the offshore renewable energy sector (ORE) by reducing the cost and time taken to consent projects of low environmental risk through the development of a risk based approach to the consenting of projects which standardizes the assessment of key component of environmental risk from ORE deployment.

More information: ricore-project.eu (Teresa Simas teresa@wavec.org and Ian Davies Ian.Davies@scotland.gsi.gov.uk)

• 21-22 April. Ocean Energy ERA-NET (OCEANERA-NET) Project Meetings and Workshop

OCEANERA-NET is the Ocean Energy European Research Area Network. The project is funded by the EU through Framework Programme 7. The objective of OCEANERA-NET is to coordinate activity between European countries and regions to support research and innovation in the ocean energy sector. During BMEW 2015, OCEANERA-NET will hold project meetings and a workshop open to industry and other stakeholders. OCEANERA-NET private meetings will include a full consortium Steering Group, to discuss progress and agree an action plan for future activities, and a Joint Call Committee meeting, to discuss plans for a call in autumn 2015. There will also be a meeting with the project's Strategic Advisory Board.

Ocean Energy ERA-NET Workshop













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Offshore Wind Conference

Opening day of the Bilbao Marine Energy Week Congress

8:45-9:15 OPENING

- Basque Government Javier Zarraonandia, Industry Vice-Minister
- TECNALIA Joseba Jaureguizar, Director General
- Bilbao Exhibition Centre Xabier Basañez, Director General

9:15-9:30 KEYNOTE

 Keynote: Offshore Wind - Big Challenges, Big Opportunities - Xabier Viteri, Director of Renewable Energy Business, IBERDROLA

9:30-11:00 OFFSHORE WIND TURBINES

Chaired by Victor Rey, Offshore Operations Director, Iberdrola

- Energy cost reduction through industrialization -Luis Álvarez, Director General, Adwen
- Siemens Frank Zimmermann, Commercial Director
- Cost reduction in offshore wind turbine design -Javier Bescós, Simultaneous Engineering Team leader, Alstom
- Offshore wind industry needs to reduce the cost of Energy - role of turbine suppliers -Javier Mourazos, Senior Sales Manager, Vestas

11:00-11:30 COFFEE-BREAK

11:30-13:30 OFFSHORE WIND FARMS

Chaired by Andrew Ho, Offshore Wind Analyst, EWEA

- Iberdrola Álvaro Martínez Palacio, Offshore Operations Director
- One wind force Rob Van Gemert, Project Director, Boskalis
- Substation of the Wikinger Offshore Wind Farm-Daniel Lancha, Head of Offshore and UK Renewables Business Unit, Iberdrola Engineering & Construction
- Practical Offshore Cable installation for complex Inter array projects - John Golding, Operations Director, Prysmian
- Bladt Morten Højriis, Project Manager

13:30-15:30 LUNCH

15:30-17:30 ROUND TABLE: BASQUE SUPPLY CHAIN

Moderated by:

José Ignacio Hormaeche, Director of Cluster de Energía del País Vasco

Javier López de la Calle, Director of Foro Marítimo Vasco





- Ingeteam Power Technology Jesús Mayor, Wind Business Manager
- Ormazabal Milagros García,
 Director of Renewable Energies
- ANTEC Guillermo Herreros, Technical Director
- Glual Alex Hausheer, Manager Sales Director
- WEC Business & Technology Center WEC Group - Gerardo Pedrero, Director General
- · La Naval Javier Angulo, Sales Director
- Talleres Gometegi Iñaki Gento, Sales Director
- Equipamientos Eólicos -Ernesto Deba, General Manager

17:30 END OF THE CONFERENCE

WELCOME RECEPTION AT THE IBERDROLA TOWER

Iberdrola is pleased to invite all delegates of this Symposium to a reception to be held at the Iberdrola Tower.











19:00-20:30









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22 APRIL 2015

bimep day

Bimep - the Biscay Marine Energy Platform - is an offshore installation located off the Basque coast for researching and testing wave collectors and floating energy systems in real sea conditions.

Bimep day will offer a complete scientific and industrial perspective of marine energy with a presentation of the research centre, scientific posters on the subject, input from other test centres and talks from the industrial sector.

8:45-9:30

OPENING

- bimep Yago Torre-Enciso, Technical Director
- INORE Adrián de Andrés, President

9:30-11:00

MARINE RENEWABLE ENERGY RESEARCH AND DEVELOPMENT PROJECTS

- DTOcean project: Developing tools for the analysis of ocean energy arrays -Henry Jeffrey, Senior Research Fellow, The University of Edinburgh
- Gesmey, Procodac, tidal energy converters -Eva Novoa, SOERMAR, General Director
- Dynamic behavior of a floating wind turbine.
 NAUTILUS test campaign Jesús María Busturia, General Manager
- TRL + Marine Energy Technology in deep waters - Raúl Guanche, Manager of the Offshore Energy Group, IH Cantabria

11:00-11:30

COFFEE-BREAK

11:30-13:30

POSTER PRESENTATION AT THE EXHIBITION AREA

Poster session organised with the collaboration of INORE

13:30-15:30 LUNCH

15:30-15:45

EUSKAMPUS PRIZE: BEST POSTER CONTRIBUTION

Igor Campillo, Director, Euskampus

euskampus

15:45-17:30

PANEL DISCUSSION: R&D PRIORITIES TO ACCELERATE THE DEVELOPMENT OF MARINE RENEWABLE ENERGY

Chaired by Antonio Sarmento, WavEC-IST

With the participation of EERA representatives and other experts on the field

- · CENER Antonio Ugarte, Head R&D
- Ocean Energy Europe Jacopo Moccia, Policy and Operations Director
- ORE Catapult Ignacio Martí, Innovation & Research Director
- The University of Edinburgh Henry Jeffrey, Senior Research Fellow













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2015

Ocean Energy Conference

8:45-9:30

OPENING

- Advances in the development of tidal stream turbines - José Luis Villate, Ocean Energy Systems, chairman
- European Commission Matthijs Soede, Research Programme Officer, DG Research & Innovation

9:30-11:00

ADVANCES IN THE DEVELOPMENT OF **OCEAN CURRENT TURBINES**

Chaired by Barry Carruthers, ScottishPower Renewables

- Atlantis Resources Joseph Fison. **Director of Corporate Development**
- OpenHydro Brendan Corr, **Chief Operating Officer**
- Sustainable Marine Energy -Christoph Harwood, Commercial Director

11:00-11:30

COFFEE-BREAK

11:30-13:30

WAVE ENERGY CONVERTERS

Chaired by Dorleta Marina, Project Manager, bimep

- OCEANTEC Martín Ojanguren, **Technical Director**
- Wedge Global Francisco García, CEO
- Resonant Wave Energy Converters Patrik Möller, CorPower, CEO
- From Wavebob to WRAM William Dick, Swirl Generators Limited, Co-Director
- · Carnegie Kieran O'Brien, Executive Director

13:30-15:30

LUNCH

15:30-15:45

OCEANERANET

Network of 16 European research funding organisations from 9 countries. The objective of OCEANERA-NET is to coordinate research funding programmes between European countries and regions to support research and innovation in the ocean energy sector.

Ocean Energy ERA-NET - opportunities for collaboration in research and innovation -Karen Fraser, Scottish Enterprise, Oceanera-net Project Manager

15:45-17:30

PANEL DISCUSSION: OCEAN ENERGY -**CHALLENGES AND OPPORTUNITIES**

Chaired by: Ocean Energy Europe, Rémi Gruet, CEO

The ocean energy industry has put 14 MW of machines in the water since the year 2000. It now looks like 2015 and 2016 could be the starting point of increased demonstration deployment.

This session will look at ocean energy perspectives, what projects are in the pipeline in the short-to-medium term? What volumes are required to pave the way to commercialization in the longer-term?

What are the necessary political and economic conditions for a step up in project roll-out? Will the EU's renewed focus on energy policy and independence boost the ocean energy industry? What are the opportunities for other maritime industries?

Is public funding and financing to the scale of the industry's potential and ambition?

- DCNS Hubert Paitard, Institutional Relations
- Clúster de Energía del País Vasco -José Ignacio Hormaeche, Director
- Carnegie Kieran O'Brien, Executive Director
- APPA-Marina Francisco García, President
- Atlantis Resources Joseph Fison, Director of Corporate Development.
- Scottish Development International Paul O'Brien, Energy and Low Carbon Technologies













IBERDROLA



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Technical Visits

COMBINED VISIT TO MUTRIKU AND BIMEP **FACILITIES**

Visiting hours: from 8:00 to 14:00 hours.

Departure and arrival from Bilbao Exhibition Centre. Possibility to stop at Bilbao Airport at 13:45 hours.

COMPLETE

Mutriku

The technical tour of the Mutriku wave generating plant will offer participants an insight into this marine energy facility, the first of its kind in Europe. The Mutriku plant has been built to demonstrate the viability of wave energy for supplying power. It is the first commercial plant in Europe to harness wave energy to generate energy, and uses Oscillating Water Column (OWC) technology. It has sixteen turbine chambers with a total installed capacity of 296 kW.

Bimep

Visit to the bimep research centre, located in the village of Armintza. The centre has all the features technology developers need to test their devices in a real marine environment, determine their response and analyse their technical and economic viability.

COMBINED VISIT TO ORMAZABAL, INGRID AND **BIDELEK SAREAK FACILITIES**

Visiting hours: from 8:30 to 14:00 hours.

Departure and arrival from Bilbao Exhibition Centre. **Limited places**

Ormazabal research and technology centre

Visit to the Ormazabal research and technology center which includes the High Power Laboratory, which was designed jointly with KEMA and with the ENAC accreditation, necessary for the investigation and development of the products that are safer for personnel and assets. Furthermore, the visit also concerns the CIT (research and technology center), an autonomous Medium Voltage network that is fully configurable (consisting, among other facilities, of a wind turbine generator system, a roof photovoltaic plant and electric vehicle charging station) where tests are performed to integrate new technologies and products into the network in a safe and controlled environment.

InGRID

New technologically advanced experimental infrastructure designed and oriented to meet the needs of electrical equipment manufacturers and utilities in the specification, development, validation and commercialisation of innovative products for the Smart Grids market. InGRID's platforms and laboratories integrate the traditional electrical engineering capabilities with advanced power electronics and ICTs technologies, to cope with the needs of new "Smart" product development for the future Smart Grids. InGRID allows electrical equipment manufacturers to validate their new developments, from the prototype stage to the final product, in specifically designed facilities. InGRID allows utilities to evaluate the equipment performance and functionality for their massive deployment into the grid ensuring their safety and reliability.

Bidelek Sareak

Iberdrola Distribución Eléctrica, together with EVE, has set in motion BIDELEK SAREAK AIE, which will become the next-generation smart grid. Bidelek Sareak is a Smart Grid demonstration project for greater support to consumers through the new smart meters and the traditional network of transformer stations, substations and MW power lines. Bidelek Sareak aims to greater integration and coordination of the entire system with electric vehicles and distributed generation. This initiative will be deployed in the areas of Bilbao, Portugalete, the Lea-Artibai District and various locations in the province of Gipuzkoa.

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