

## Offshore Renewable Energy and its Potential for the Outermost Regions

Seminar Wave Energy Centre – 15th September 2011 – Enotel Lido - Conference Resort & Spa – Madeira, Portugal

### SPEAKERS

#### Opening Session



#### **João Carlos Cunha e Silva - VICE-PRESIDENT OF THE REGIONAL GOVERNMENT OF MADEIRA**

EDUCATION: Degree in Law

GRADUATE: European Studies at the University of Coimbra

CURRENT POSITION

- Vice-President of the Regional Government of Madeira

PAST POLITICAL POSITION

- Vice-President of the Legislative Assembly of Madeira
- Deputy at Parliament
- Member of the Regional Legislative Assembly

OTHER PAST POSITIONS AND FUNCTIONS

- Sports Director
- Monitor of Professional Training Course
- Law Counsel
- Collaborator in several Media newspapers
- Lawyer
- Associative Manager



#### **Manuel Pinto de Abreu - SECRETARY OF STATE OF SEA AFFAIRS**

Manuel Pinto de Abreu completed a degree in Military Science Naval, Oceanology, by the Naval Academy, Alfeite, Portugal in 1983 and obtained a Master of Science in Physical Oceanography, by the Postgraduate Naval School of the United States of America, in Monterey, California in 1989. He obtained the degree of Doctor of Philosophy in Physical Oceanography, by the same school in 1991, having obtained the degree of Hydrographer Engineer, by the Hydrographic Institute, Lisbon in 1992 and the degree of Doctorate in Physics by the University of Lisbon in 1995.

He was responsible for the Mission for the Sea Affairs Structure and was a full professor at the Lusófona University of Humanities and Technology, where he was Vice-Dean (2003-2008). He is also a Professor at the Institute of Higher Studies in the Military and Naval Academy. He was responsible for the Mission for the Extension of the Continental Shelf of Portugal Structure, as well as a member of the Interministerial Commission for the Delimitation of the Continental Shelf and chair of its Advisory Board and member of the Strategic Committee of the Oceans. He was a consultant of the International Maritime Organization, and has been a member of several Technical Committees within the Strategic and International Hydrographic Organization.

He is a naval officer (in reserve since 2001), with command of naval units

and had been chief of the Division of Hydrography and Cartography of the Hydrographic Institute.  
Government Functions Exercised. Since 28/06/2011: Secretary of State of the Seas of the XIXth Constitutional Government.

## **SESSION I**

Moderator: Custódio Miguens (*EnergyIN*)



### **Custódio Miguens (*EnergyIN*)**

Chairman of the Board of Directors of EnergyIN - Pole of Competitiveness and Energy Technology.

Some of the previous functions: CEO of EDP International, Vice-President of EDP Brazil, Chairman & CEO of Macau Electricity Company, Director of EDP Production, Director General of Energy, Vice-President of the European Energy Charter, a member of the Governing Board of IEA - International Energy Agency.

### Speakers:



### **António Sarmento (*WavEC*)**

Is an associate professor at the Department of Mechanical Engineering of the Instituto Superior Técnico (Technical University of Lisbon) and is active in the field of wave energy research for more than three decades. He is the director of the Wave Energy Centre since its foundation in 2003 and well as member of the Board of Directors of the European Ocean Energy Association since 2006. Professor António Sarmento is also member of the Board of directors of the International Society of Offshore and Polar Engineering (ISOPE), since July of 2007.



### **Nuno Matos (*WavEC*)**

Nuno Matos has a degree in Telecommunication and Electronics at the IST in 1974. In the same year he started his activity at the TLP (Portuguese Telecom since 1994) at the operational and engineering section until 1981, when he started the function of Commercial Directors. Commercial Director of Telepac since its creation in 1984. Administrator of Telepac between 1996 and 1999. Vice President of Lusa Press Agency between 2000 and 2003. Director of Revenue Assurance, Fraude and Credit Control of TMN between 2003 and 2007. Consultant of WavEC since 2009, becoming the responsible for the Public Policies and Dissemination Department since January 2010.



### **João Freire Cardoso**

João Freire Cardoso is the general manager of ENONDAS a company of the Portuguese TSO REN, responsible for the development and management of the Portuguese Pilot Zone.

He is a Portuguese Navy Commander (Retired) with more than 25 years of professional maritime experience. He has a degree in Oceanographic and Meteorology sciences, issued by the Portuguese Naval Academy and he is a specialist in Naval Weapons Systems.

After he left the Navy (in 2005) he worked as sales manager director for an Oil & Gas engineering company, Projecto Detalhe.

In 2008 he joined the Martifer group, where he worked as consultant for marine environment operations and projects where he belonged to the developing team of the wave energy project "FLOW".

He was also member of the board of ENERGYIN (PCTE - Pólo de Competitividade e Tecnologia da Energia).

As hobby he is a sport sailor, since tender age.



**Alla Weinstein (*Windplus, Principle Power Inc*)**

CEO and President of Principle Power Inc.

Alla is co-founder and the CEO & President of Principle Power Inc., the developer of the WindFloat, a deepwater floating support structure for offshore wind turbines. In 2006 Ms. Weinstein founded the European Ocean Energy Association and served as its first President through 2010. In 2001, Ms. Weinstein decided to take on the entrepreneurial challenge in a renewable energy by co-founding AquaEnergy Group Ltd., a wave energy company that was sold to Finavera Renewables, a TSX-V listed public company in 2006.

Ms. Weinstein's successful career began at Honeywell Inc. in 1977, where she held positions from engineering to general management. Alla holds a BE in Electrical Engineering from Stevens Institute of Technology and an MBA from Thunderbird, The Garvin School of International Management.



**Margarida Almodovar**

Degree on landscape architecture by Évora University and post graduate on planning and land management by the University of Lisbon. Since 2007, perform the functions as Director of the Department of Planning and Regulation of hydro resources in the Water Institute, which is the national water authority.

Developed several papers in the area of integrated coastal zone and is the national expert to monitor the Recommendation to the EU ICZM. Coordination of the team responsible for the drafting of the maritime spatial plan for the Portuguese maritime area between 2008 and 2011.

**SESSION II**

Moderator: José Manuel Melim Mendes (*AREAM*)



**José Manuel Melim Mendes**

Chemical and Mining Engineer degree from the Technical University and postgraduate degrees in Nuclear Fuel Cycle and Global Strategy and Management.

He developed his professional activity in the field of nuclear energy and public administration, in the energy field, having also lectured at the Technical University of Lisbon until 1990.

He was a representative and delegate of Portugal at various committees of the European Commission and the International Energy Agency OECD.

He was an expert of the European Commission for innovation in energy.

Melim Mendes participated in numerous technical missions, projects and studies in various European, African and American countries, representing international organizations and companies.

Since 1991 he develops his work in Madeira.

He is currently Chair of the Regional Agency for Energy and Environment of the Autonomous Region of Madeira (AREAM), President of the Scientific and Technological Board of AREAM, member of the Board of the European Council of Environmental Law as a representative of the Autonomous Region of Madeira, and Vice President of RNAE - Association of Energy and Environment Agencies.

Speakers:



**Frank Neumann**

Frank Neumann has a degree in Civil Engineering obtained at the University of Karlsruhe (Germany) in 1999. In the same year he started his activity in wave energy at the Instituto Superior Técnico developing studies related to the technological and economical viability of coastal wave energy devices. In 2003 he joins the WavEC team contributing actively in its foundation and management. He coordinated a researchers' network formed by the Wavetrain project and is responsible for the upcoming Wavetrain2 project, initiated in 2008. He also coordinates the monitoring works at the Pico device since 2005. Since January 2008 Frank Neumann is the Associate Director of the WavEC.



**José M. Ferreira da Cruz**

José Cruz obtained his degree at IST in Naval Engineering, in 1991 and practices since 1993 project activities, consultancy at fishery marine sectors, commerce and navy.

He is presently coordinator of an engineering and naval architecture project department with the capacity for the development of naval projects and strongly skilled for the research of structural projects in the field of offshore technologies. José Cruz is consultant of Aquailha.



**Agostinho Figueira**

Agostinho Figueira obtained his degree in electrical engineering at the University of Coimbra. He is working since 1989 at EEM, having developed tasks in the distribution services and planning area. He occupies the position of Director of Studies and Planning, since 2002.



**Pål Bakken**

Founder and CEO. Bakken has a BSc with honours in Finance and Marketing (University of Oregon, USA). Bakken's working experiences is all related to the ocean - as an officer in the Norwegian Navy, an entrepreneur in the aquaculture business, and through involvement in various marine renewable energy projects in Europe. For 7 years he was Founder and President of a seafood company in Japan and for 5 years he was President of Stolt Sea Farm Asia Pacific in Singapore. As a youth, he also gained invaluable hands-on experience in harvesting and processing of wild seaweed at his father's seaweed meal factory in Norway. Bakken speaks Norwegian, English, Portuguese and Japanese.



**Greg Allen**

BEng (Mech), MBA. Chief Operating Officer

Greg has over fifteen years of experience across a range of technology and engineering related industries. He has held senior management and executive responsibility for operational, business development and administrative functions at sizable private, and publicly listed companies. Prior to joining Carnegie, Greg was a Senior Manager for Wesfarmers' remote power generation business specialising in remote unattended power system ownership, operation and maintenance for regional towns and resource operations. Additionally, Greg was previously Chief Operating Officer of an ASX-listed company involved in the commercialisation of renewable energy based water pumping and reverse osmosis technologies and was Operations Manager of a heat transfer equipment engineering and service company.

### **SESSION III**

Moderator: Frank Neumann (*WavEC*)

#### Speakers:



**John Huckerby**

Dr. John Huckerby is the current Chairman and New Zealand Government representative to the Ocean Energy Systems Implementing Agreement (OES-IA). He is the founder and Executive Officer of the Aotearoa Wave and Tidal Energy Association (AWATEA), New Zealand's marine energy trade association.

Dr. Huckerby is also the principal of Power Projects Limited, a private company with an investment in the Wave Energy Technology – New Zealand (WET-NZ) R & D programme, which has just launched a 1/2-scale point absorber wave energy converter.

Dr. Huckerby has a Ph.D. From Imperial College London and is a Chartered Engineer. He is a Member of the Energy Institute, the Royal Society of New Zealand and the Institute of Directors in New Zealand.

Gareth Davies



Gareth Davies is the Managing Director of Aquatera and has worked as an environmental consultant for over 20yrs, specialising in marine environmental issues. He trained initially as a marine biologist, completing a PhD in Deep Sea Biology. Renowned for innovative thinking, unbounded enthusiasm and commitment to finding solutions. Gareth has worked in many areas of the world including Sakhalin, Caspian Sea, Mediterranean Sea, South America and many island groups. He has undertaken numerous projects in the sector ranging from strategic planning and assessment, through baseline investigations, risk assessment, site selections and resource assessment studies to operations support tasks for both wave and tidal developers. Latterly he has become involved in the strategic thinking that should enable the marine renewables sector to develop and flourish to its full potential.





### **José Joaquín Hernández Brito**

Dr. José Hernández Brito holds a Ph. D. in Chemistry (1986) by the University of La Laguna, and he is professor at the Faculty of Marine Sciences of the University of Las Palmas de Gran Canaria since 1983. He has been a marine science researcher, supervisor for several thesis, and responsible for over twenty national and international projects. He has held several R & D management positions at the University of Las Palmas de Gran Canaria, such as Dean of the Faculty of Marine Science, Director of the Research Results Transfer Office (TTO), Director of the Scientific and Technological Park, and Research Vice-Rector. He has also held the positions of Director of the Canary Institute of Marine Science. Since 2009, he is the manager of the ICTS (Science and Technological Singular Infrastructure) PLOCAN (Oceanic Platform of the Canary Islands) where he is in charge of developing infrastructures, services and projects. His main motivation is to bring out new knowledge, skills, marine and maritime resources, linking administration, training and business.



### **Eoin Sweeney**

Eoin has a Masters degree in Economics from University College Dublin. Until 2009 he managed the Discovery Programme (Ocean Energy, Advanced Marine ICT and Biotechnology), in Ireland's Marine Institute. He is currently Head of the Ocean Energy Development Unit, in the Sustainable Energy Authority of Ireland.

In this role he is responsible for initiating and co-ordinating a wide-ranging suite of measures to realise the objectives of the national Ocean Energy Strategy – developing research and test facilities, funding industry research and prototyping, supporting the development of a planning and permitting framework, and initiating work on related aspects of offshore wind, supply chain, engineering infrastructure and macroeconomics.



### **Keyyong Hong**

Dr. Keyyong Hong is the Director of Marine Structure & Plant Research Department of KORDI (Korea Ocean Research & Development Institute). He has a Bachelor and Master degree in the Department of Naval Architecture at Seoul National University, Korea and holds a Ph.D in the Ocean Engineering Program at Texas A&M University, USA in 1993. Since he joined to KORDI in 1994, he has been involved in various national R&D projects in the fields of wave energy converting technologies, hydrodynamic analyses of fluid-structure interactions in the ocean and marine pollution simulation and prevention technologies. He was the Chair of Ocean Energy Committee for the national renewable energy RD&D strategy established by the Korean Ministry of Commerce, Industry and Energy in 2007. He is the currently Chair of Ocean Energy Research Forum in the Korean Society for Marine Environmental Engineering

## SESSION IV - Roundtable Discussion

Moderator: António Sarmento (*WavEC*)

### Speakers:



#### **António Sá da Costa**

- Civil Engineer at IST-UTL (Technical University of Lisbon) (1972)
- PhD and Master of Science from MIT (Massachusetts Institute of Technology USA) in Water Resources (1979)
- António was a professor at the IST Department of Hydraulics and Water Resources 1970 to 1998. Associate Professor during 14 years.
- He practiced as a consulting engineer for over 30 years, highlighting the performance of hundreds of studies and projects in the field of small hydropower plants.
- Founder and administrator of the Enersis Group from 1988 to 2008.
- He belongs to several professional associations
- President of APREN - Portuguese Association of Renewable Energy
- Member of the Board of APE – Portuguese Energy Association
- Vice President of EREF – European Renewable Energy Federation.
- Member of the Board of ESHA – European Small Hydro Association.
- António was appointed to preside over the Iberian Centre for Renewable Energy and Energy Efficiency that will be created in Badajoz.



#### **Frederico AD. Cardigos**

Frederico AD. Cardigos has a degree in Marine Biology and Fisheries from the University of Algarve and Master in Management and Nature Conservation at the University of the Azores. He is Regional Director of the Government of the Azores since September 2006 and since October 2010, he manages the Sea Affairs. From 1994 until 2006 he worked in the Department of Oceanography and Fisheries (DOP) and the Center of the Sea Institute at the University of Azores, supported by projects financed by the European Union, the FCT- Foundation for Science and Technology of Portugal and the Azores Regional Government.

He guided several marine scientific expeditions. Published as author or co-authored 14 scientific articles and 42 technical and scientific reports, posters and abstracts of scientific communications at conferences. He organized and maintained the image and multimedia department of DOP, the ImagDOP, managed the internal website, IntraDOP, and the database of dive tourism in the Azores, ScubAzores. He collaborated on several educational initiatives of the DOP, including lessons for a degree in Marine Biology, the Fisheries of the Azores Observation Program and summer courses. He took part of the newsroom secretariat of the "Archipelago" scientific magazine. In the DOP he also carried out technical work in the areas of the bioacoustics, the fisheries biology and underwater tourism. He is also active with underwater photography, and has published photographs in books, magazines, newspapers and others.



### **Francisco Botelho**

Director of Electricity of the Azores, SA (EDA) since 1997. Among other activities, Francisco Botelho coordinates at EDA the areas of planning and regulation. He is a member of the Advisory Board of the ERSE and of the Board of ELECPOR.