

IENE WORKSHOP

**28 SEPTEMBER, 2022
ATHENS**

**ELECTRICITY STORAGE
& GRID MANAGEMENT**
for Maximum RES Penetration



One Day IENE Workshop
Electricity Storage and Grid Management for Maximum RES
Penetration
September 28, 2022, Crowne Plaza Athens City Centre, Athens
Under the auspices of RAE

SPEAKERS BIODATA

Dr. Platon Baltas, Executive Director EUDITI Ltd



Since 2007, **Dr. Platon Baltas** is a partner in EUDITI Ltd. where he participates in energy efficiency projects, RES project development and hybrid systems. He received a B.Sc. in Physics from University of Athens in 1979 and a Ph.D. in Electrical Engineering from Arizona State University in 1987. In 1988, he joined the Center for RES in Greece where he served as manager and chief scientist of the Photovoltaics Department until 1988. At this position, he played a key role to the development of the Greek National Programme for Photovoltaics, to the development international collaborations and to the funding of Department activities. From 1998 to 2000, he worked as an independent consultant on photovoltaics and water production using RES. From 2000 till 2007, he worked for Germanos – Systems Sunlight S.A. as a business development manager for photovoltaic systems. At this position, he worked for the development of grid connected PV projects and new solar and hybrid photovoltaic products for the telecom market. In 2007, he joined the Enfinity Group as the general manager for Enfinity Hellas Holdings S.A. At this position he worked on the development of RES investment projects, energy storage projects and electrification of islands in developing countries. In 2016, he became the manager of energy storage activities of the Group. Platon has a long association with IENE having participated in numerous conferences, workshops and working groups and has advised the Institute on several occasions on RES issues.

Prof. Pantelis Capros, Director of E3M Lab, National Technical University of Athens and Chairman of the Scientific Council, IENE



Prof. Pantelis Capros is Professor of Energy Economics and Operational Research at the School of Electrical and Computer Engineering of the National Technical University of Athens (NTUA). He was the first President of the Energy Regulatory Authority of Greece (2000-2004) and a member of the BoD of PPC (Public Power Corporation, Greece) for five years (1995-2000).

He is specialised in energy, transport and economic modelling, energy forecasting and planning, econometrics, integrated assessment modelling, software engineering and databases. He has built and used a variety of large-scale mathematical models maintained for several countries. He provides high-level consultancy services to the European Commission, EU governmental offices and several energy companies.

He has over 30 years of professional experience in the areas of energy, transport, environment and economic policy and more than 150 publications in international scientific journals.

Prof. Pantelis Capros holds an engineering degree from NTUA, three DEAs in Economics, Informatics and Operations Research from ENSAE – INSTN and the University of Dauphine, Paris, and a Doctorat d’Etat in Mathematical Economics from University Pierre et Marie Curie, Paris.

Mr. Patrick Clerens, Secretary General, European Association for Storage of Energy (EASE)



Mr. Patrick Clerens studied law at the University of Saarbrücken and the University of Mainz. Since 1996, he has worked as a consultant for a private company specialising in European Affairs in Brussels. In his capacity as Brussels Representative of different European associations, he has been involved in the climate and energy field since 2003.

He has managed the EASE office in Brussels as Secretary General since its establishment in September 2011. Since then, EASE has grown from the initial 13 founding members to more than 50.

Dr. Panagiotis K. Chaviaropoulos, Mechanical Engineer, PhD, NTUA Managing Director, iWind



Dr. Panagiotis K. Chaviaropoulos has a Mechanical Engineering Diploma, MSc degree in 1982 at National Technical University of Athens (NTUA). PhD degree, Mech. Engineering School at NTUA in 1987. Post doctorate at Laboratory of Thermal Turbomachines of NTUA (1987 - 1994). Research Engineer in the Wind Energy Dept. of the Centre for Renewable Energy Sources (CRES), as head of the modelling group (1994-1998). Director of the Renewable Energy Sources Division, of CRES (6/1998-

12/2014). 55 Research associates working in the fields of Wind Energy, Biomass, PV Systems & Distributed Generation, Small Hydro, Geothermal, Solar Thermal and Hydrogen technologies. Head of the Greek RES Office (2010-2011). Co-founder and managing director of iWind Renewables P.C. (Dec. 2014).

Thirty-year experience in R&D projects funded by the E.U., the European Industry and the Greek State. Participation in more than 40 research programs (co-ordinator of six of them). Last twenty five years working in the fields of horizontal axis wind turbines aerodynamics, aeroelasticity and complex terrain wind field modelling. More than 150 Journal and peer reviewed Conference publications, co-editor of two books on optimum aerodynamic design.

Member of the Greek delegation in the European Framework Programmes (FP5, FP6, FP7, Horizon 2020) Energy Committee (2000–2014). President of European Academy for Wind Energy www.eawe.eu (2006-2007). Vice-Chairman of the European Wind Energy Technology Platform www.windplatform.eu (2007-2012). Greek Representative in the SET-Plan Steering Group (2008-2012). EAWE Scientific Award 2010. Aiolos Award 2013 (Greek Wind Energy Association).

Prof. Athanasios Dagoumas, President, Regulatory Authority for Energy (RAE)



Dr. Athanasios Dagoumas is an Assistant Professor in Energy and Resource Economics and Director of the Energy and Environmental Policy laboratory at the University of Piraeus. He holds a Diploma in Electrical and Computer Engineering from the Aristotle University in Thessaloniki, where he elaborated his PhD in Energy Economics. He is Member of the Board of the Cambridge Trust for New Thinking in Economics. He has more than 15 years of work and research experience in energy related issues, including working as a Senior Researcher at the University of Cambridge and as a Senior Energy Analyst at the Transmission System Operator and at the Electricity Market Operator in Greece. Moreover he was enrolled as a Special Advisor to the Ministry of Environment, Energy and Climate Change in Greece. His extensive experience builds his capacity for an in-depth understanding of multidisciplinary aspects of the energy sector: economic, engineering, environmental and policy. He is keen on developing models for the energy system, the economic-energy-environment (E3) systems and the real energy markets. He has been President to the Regulatory Authority for Energy since July 2020.

Dr. Ioannis Kabouris, Chairman & CEO, Southeast Electricity Network Coordination Center



Dr. Yannis Kabouris was born in Athens on 1962. He holds a Diploma on Electrical Engineering (1985) and a PhD (1992), both from the National Technical University of Athens. From 1991 until 2001 he was working in the Public Power Corporation (PPC) - System Studies Department. He joined the Hellenic Transmission System Operator (HTSO) on 2001 and the Independent Power Transmission Operator of Greece (IPTO) on 2011.

He was an associate professor at the University of West Attica (2002 to 2011) He has served in various positions in the electricity sector:

- Head of Development Studies Section HTSO S.A. (2001-2005)

- Assistant Director for System Planning Department HTSO S.A. (2005 – 2006)
- Director for System Planning Department HTSO S.A. (2006 – 2012)
- Director at the CEO office IPTO S.A. (2012 – 2015)
- Director of the Transmission System Planning Dept. IPTO S.A. (2015 – 2017)
- Chief Executive Officer (CEO) IPTO S.A. (Feb 2017 – June 2017)
- Member of BoD of IPTO S.A. (2017 – 2020)
- Chief Officer for Operation, Infrastructures and Market IPTO S.A (2017 – 2020)
- Member of BoD of HEnEX S.A. (2018)

He participated in several entso-e bodies and activities (2000 to present):

- Member of System Development Committee, System Operations Committee, Research, Development and Innovation Committee (SDC, SOC & RDIC)
- Convenor of (RG-SEE) • Member of Grid Codes Working Groups; etc.
- Member of Ten Year Network Development Planning Group, Investigation of 4th November 2006 event (head of study team for SEE)

Currently, he is Director for Foreign Affairs in IPTO, BoD Chairman and CEO of SELENE CC and Vice President of MED-TSO.

His main fields of expertise include Power System studies and Analysis (static and dynamic), Generation and Transmission Planning, Integration of renewables into power systems, Development of Interconnectors, Generation adequacy, Market development and operation, Energy Management systems and Control Centers, National and International Electricity Market Regulation and Research & Development strategies.

He has published more than 150 papers on the above mentioned topics. He has also participated in more than 40 international research projects.

He is the Chairman of the CIGRE National committee of Greece. He is a member of CIGRE and IEEE. He gained the SWAN PREMIUM AWARD (2002). He also received the “PROMITHEUS” award by the IENE (2021)

Ms. Ivana Krstic, Product Marketing Manager, Schneider Electric,



Ms. Ivana Krstic is a product marketing manager working for Digital Grid in Schneider Electric and holds a MSc in electrical and computer engineering.

She has over 12 years of experience in creating and delivering software solutions that help electric power utilities operate the distribution grid by ensuring safety, reliability, efficiency and quality of electric power delivery.

Her current focus is the clean energy transition and how to help utilities integrate all the renewables and electric vehicles that are necessary for reaching global decarbonization targets.

Mr. Nikolaos-Antonios Livanos, Managing Director, EMTECH SPACE



Mr. Nikolaos-Antonios Livanos is founder of EMTECH Group (EMTECH SPACE P.C. in Greece, EMTECH GMBH in Germany, and EMTECH SPACE P.C. (CY) LTD. in Cyprus). He is Managing Director of EMTECH Greece, responsible also for Business Development and Technical Management in the domains of spacecraft simulation systems, and energy smart-grid solutions. He has successfully managed several space engineering projects for European Space Agency, AIRBUS, Telespazio, Thales Alenia Space and other European space prime contractors. Since 2008, in collaboration with the Greek Independent Power Transmission Operator, he has designed and managed the iReact solution for automated reactive load compensation in the Greek primary substations (HV/MV). Recently, he has been working on an innovative solution called iDERgridy, targeting to optimized energy management and digitalization of Islands. For 15 years, he has been steering EMTECH in steady growth by inspiring excellence, innovation, team-spirit, and a mentality of hard work in all company activities. He has an EMBA degree from the Athens University of Economics & Business, MSc in Electronics, and BSc in Physics from the University of Patras.

Dr. Stelios Loumakis, Chairman, Hellenic Association of Photovoltaic Energy Producers (SPEF)



Dr. Stelios Loumakis has a Master's degree in Chemical Engineering from NTUA since 1992. He obtained an MBA from the University of Portsmouth, UK and holds a PhD from NTUA completing in 2019 his doctoral dissertation in the field of Wholesale Electricity Market Operation and Renewable penetration. During his professional career he has held upper managerial positions in large companies in the field of FMCGs, such as in the multinational Sara Lee Household & Body Care Hellas and Karamolegos Bakery Industry and was active in collaboration with Katselis Bakery Industry in the fast-growing business sector of organized catering and food retail. Since 2006 he is active in the electricity market field through developing centralized photovoltaic plants. His company, a pioneer in the industry, completed and interconnected to the grid one of the first PV plants in April 2008. Furthermore, as a consultant, enjoys deep experience, especially in the field of wholesale electricity market and renewables. His clientele includes large corporations such as SPI Energy, EYDAP, Attica Finance Consulting, Interphoton Group, Intertrade Hellas, EasyPower etc. He is a member of the list of referees and arbitrators of RAE. He has been elected to the Board of the Hellenic Association of PV Energy Producers since 2009, while since 2011 he is the President for five consecutive terms.

Mr. Eduardo Maldonado, Lawyer & Economist, One-Cycle Control Inc



Mr. Eduardo Maldonado specializes in structuring and financing energy projects and foreign investments in infrastructure projects, privatization of state owned companies, international mergers and acquisitions and providing regulatory advice regarding the energy sector. In the U.S. Mr. Maldonado has practiced as an associate with the Washington D.C. offices of the law firms of Akin, Gump, Strauss, Hauer & Feld and Crowell & Moring. He has also been of counsel at the law firm Arent, Fox, Kintner, Plotkin & Kahn. Mr. Maldonado is a Colombian born lawyer and economist. Prior to moving to the U.S. as

a Fulbright Scholar in 1986, to pursue graduate studies at Georgetown University in Washington D.C., he studied economics at Universidad del Rosario, where he graduated in 1985 and law at the Universidad de los Andes in Bogota, Colombia, where he finished his studies in 1987. In the U.S. he holds a Masters in Foreign Service (MSFS) degree from the School of Foreign Service of Georgetown University, where he graduated with honors from the Landegger Program in International Business Diplomacy, and a Masters in Law, Common Law Studies (LLM), from the Law School of Georgetown University, having specialized in structuring and financing foreign investment projects, securities laws and international commercial transactions and international trade and finance.

Mr. Alexandros Ntalagiannis, Green Deal Initiative leader & System Application Engineer – Microgrid, Schneider Electric, Greece & Cyprus



Mr. Ntalagiannis Alexandros is the Green Deal Initiative leader and System Application Engineer at Schneider Electric AEBE for the countries of Greece and Cyprus. He holds a degree in Electrical Engineering and Computer Technology from the University of Patras with four years of experience in research and development of innovative systems of energy storage and green energy. He provides on behalf of Schneider Electric sustainable and innovative solutions in the field of energy, mainly focused on

Microgrids, Energy Storage, Virtual Power Plant and PPA

Mr. Dimitri Ottaviano, Director of Engineering and Product Development, Sunlight Group Energy Storage Systems



With over 14 years of working experience in Engineering spent in 6 different countries, **Mr. Dimitri Ottaviano** joined Sunlight in 2021 and has since been leading the Lithium Product Engineering division.

Prior to working at Sunlight, he was responsible for the ESS Product Development in Northvolt, following his prior role as Senior Application Engineer in Samsung SDI.

Mr. Ottaviano holds Bachelor and Master degrees in Aerospace Engineering from Politecnico di Torino, as well as a Ms in Renewable Energies from the University of Oldenburg, Germany.

Dr. Stavros Papathanasiou, professor in the School of Electrical and Computer Engineering, NTUA



Dr. Stavros Papathanasiou is a professor in the School of Electrical and Computer Engineering of NTUA. His area of expertise is renewable generation, electricity storage and power systems. He is active in the field for more than 25 years, having engaged in the development of renewable and distributed energy generation and storage technologies, their network integration and market participation, as well as in applications of RES and storage in autonomous islands. He has collaborated closely with state institutions, regulatory authorities and system operators on regulatory, operational,

technical and market aspects, and he has engaged in significant renewable generation, storage and grid projects in Greece and abroad.

Mr. Stelios Psomas, Senior Advisor, Hellenic Photovoltaics Association (HELAPCO)



Mr. Stelios Psomas is an acknowledged senior expert on green energy and sustainable investments. He has an experience of over 25 years in opening new green markets, facilitating green project development and financing, protecting climate and the environment, and promoting energy efficiency and renewable energy.

He has experience in project authorization and development, as well as in technical, financial, environmental and social assessment of investments. As a senior advisor of the Green Banking Division of Piraeus Bank in Greece for thirteen years, he has assessed hundreds of green investments including over 600 MW of photovoltaic (PV) power plants.

He has played a pivotal role in drafting renewable energy legislation in Greece (serving as the Policy Advisor of the Hellenic Association of Photovoltaic Companies) and helped in bringing Greece to the second ranking worldwide (2013-2014) with regard to the share of PV in overall electricity demand.

Ms. Alexandra Psyrris, Head of Market Making Unit Public Power Corporation S.A.



Ms. Alexandra Psyrris is a senior energy economist, currently Head of Market Making Unit of PPC S.A., the Greek Electricity Utility and has been in the Energy Management Business since 2002. Until 2020 she was Head of Forward Trading Unit of PPC, responsible for financial and physical energy trading including also neighboring Markets, conducting thus electricity trading in the whole SEE region. Until autumn 2018, she was responsible for all Front Office operations, including the bidding of PPC's fleet of Units in the Greek

Day Ahead Market, cross-border and CO2 trading. In parallel, she is also the CEO of PPC BG, an electricity trading company, subsidiary of PPC in Sofia.

Mr. Vasilis Rallis, Co Founder EarthIndex, Business Development Lead, Parity Platform



Mr. Vasilis Rallis is an Energy and Business Development expert, focusing on Energy Efficiency, Renewables and Fintech. Previously he was an Economist at Greek Regulatory Authority of Energy (RAE) responsible for issues concerning financing and liquidity of the market, creation and implementation of the Energy Exchange & Clearing, Supervision. He has also managed various large-scale projects with multiple stakeholders on the Electricity and Natural Gas Markets and participated in the Target Model Task Group. In

the past he has worked in Greek and foreign multinational companies in Greece and Great Britain. He holds an MBA (Alliance Manchester Business School), an Economics Degree (Athens University of Economics and Business -former ASOEE) and the Global Energy Certificate (Harvard Business School).

Dr. Gregory T. Smedley, CEO/President, One-Cycle Control, Inc.



Dr. Greg Smedley, Caltech Ph.D. is a renowned researcher, educator, and industry leader with a diverse career that spans power electronics, medical devices, research and teaching at Caltech, and space exploration at JPL. As CEO of One-Cycle Control, Inc. he is focused on tackling global-scale problems in transportation, energy, electric grids, and lowcost access to space. He received the Teaching Excellence Award at Caltech in 2000 and his OCC team received the Army Achievement Award

in the Pentagon for mobile electric power in 2010. Dr. Smedley has delivered invited talks throughout the world.

Prof. Keyue Smedley, Professor, Department of EECS at University of California, Irvine (UCI), Director, UCI Power Electronics Laboratory, and co-founder, One-Cycle Control



Dr. Keyue Smedley, Caltech Ph.D. is a Professor in the Department of EECS at University of California, Irvine (UCI), Director of the UCI Power Electronics Laboratory, and a co-founder of One-Cycle Control, Inc. Her work has resulted in more than 200 technical publications, numerous U.S. and international patents, and wide industrial applications. Dr. Smedley is a recipient of the UCI Innovation Award 2005. She was elevated to IEEE Fellow in 2008 for her contributions to

high-performance switching power conversion. Her work with One-Cycle Control, Inc. won the Department of Army Achievement Award in the Pentagon in 2010. Dr. Smedley is an IEEE PEL Distinguished Lecturer.

Mr. Nicholas Sofianos, Member of the BOD and Chairman of IENE's RES Committee , IENE



Mr. Nikolaos Sofianos worked for IENE for ten years (2007 - 2017) firstly as a Researcher and later as Research Coordinator of the Institute. He is a graduate of the department of History and Philosophy of Science of the National Kapodistrian University of Athens while he holds a master's degree in Economic Development from the University of Glasgow in Scotland. He has carried out extensive research into Renewable Energy Sources and their implementation in SE

Europe. He was the Coordinator of the EU funded research project Geofar. His main area of interest is energy policy issues. He participates as a publishing assistant in the "Energy Issues" (IENE Monthly Newsletter) and in the "SE Europe Energy Brief" (a

series of newsletters issued by the Institute). In addition, he has written many articles on energy while he has participated as a speaker at numerous conferences, seminars and workshops in Greece and abroad. Since 2016, he participates in the Board of IENE as a partner. Finally, he is currently a permanent external research associate, regularly contributing to the analysis of energy market issues.

Mr. Marios Stathousis, Sales Manager, Siemens Gamesa Renewable Energy, Greece



Mr. Marios Stathousis is 41 years old, married and has two children. He studied Electrical & Computer Engineering at NTUA and has an MSc in Microelectronics System Design from the University of Southampton. He has worked in various positions in the Energy sector in Greece and England at Siemens, KiWi Power and Vestas. Since October 2020 is the Sales

Manager of Siemens Gamesa for Greece and Cyprus. He speaks English, French and Italian.

Mr. Costis Stambolis, Chairman and Executive Director, IENE



Mr. Costis Stambolis who is the Executive Director of IENE, has a background in Physics and Architecture having studied at the University of London, the North East London Polytechnic (NELP) and the Architectural Association in London from where he holds a Graduate Diploma in Architecture and Energy Studies (AA Dip. Grad). He also holds a professional practice license from the Technical Chamber of Greece (TEE), and a Masters Degree from the Said Business School, University of Oxford, where he studied

"Strategy and Innovation".

Costis has carried out numerous studies and projects on Renewable Energy Sources in developing countries. He has consulted widely on solar building applications for both private and institutional clients in various European countries. He has worked as a consultant and strategy advisor on natural gas, oil markets and energy security issues for large multinational companies, international organizations and governments.

Costis has lectured widely on energy issues and has organised several national, regional and international conferences, seminars and workshops. He has published several books, conference proceedings, research papers and studies on energy policy, solar energy, RES and energy markets. Among others he is the editor of the "S.E. Europe Energy Outlook (2011,2017, 2022)", which considered a basic reference on energy for SE Europe.

Since 2001 he supervises and edits daily Greece's foremost energy site www.energia.gr. He is a founding member of the Institute of Energy for South East

Europe (IENE), which he currently chairs. He is a member of the Energy Institute (UK), the International Passive House Association (IPHA), The Technical Chamber of Greece (TEE). Since 2018 he also serves as a full member of the Greek government's standing committee on Energy and Climate Change (NECP).

Mr. Costas Theofylaktos, Secretary General and Chairman of IENE's Energy Efficiency Committee



Mr. Costas Theofylaktos is a USA trained Mechanical Engineer with an MSc from the University of Evansville, Indiana, and has 25 years experience in the energy sector. Constantinos's special interests includes cogeneration and RES and was for many years chairman of Greece's Cogeneration Association and also member of the executive council of COGEN Europe. He has served as chairman and CEO of the Athens based Centre of Renewable Energy Sources (CRES).

Prof. Chresten Træholt, Assoc. Prof. Head of Research Section, Power-to-X and Storage, Division for Power and Energy Systems, Department of Wind and Energy Systems, Technical University of Denmark



Dr. Chresten Træholt holds a MSc. Elect. Eng. and a PhD in applied physics from the Technical University of Denmark. Since May 2022 he was appointed section head of "Power-to-X and Storage" at Dept. Wind and Energy Systems, Technical University of Denmark, DTU. Since 2012 he was head of research group Distributed Energy Resources at Center for Electric Power & Energy, CEE, Department of Electrical Engineering, DTU, where he led the research activities on smart grids, electric vehicles, battery electric storage and multi-energy systems integration. Between 2007 - 2012 he held a dual position with DTU and the NKT cables group. During 2002-2007 he was with the joint venture Ultera/nkt cables working with design, manufacturing, testing, prototyping, and commercializing superconducting cables. Between 1992 – 1997 he was a PhD, post doc and research fellow at Delft University of Technology, TUD in the Netherlands.

Ms. Yioula Tsiknakou, Head of the Hydroelectric Projects Department, TERNA ENERGY



Mrs. Yioula Tsiknakou is the Head of the Hydroelectric Projects Department at TERNA ENERGY. Her expertise in the hydroelectric power sector in Greece spans in a period of over 30 years. She has been with the Group since 1999 after having served at PPC for many years, being responsible for the design, strategy and economic evaluation of hydroelectric projects as well as energy and planning.

As head of the hydroelectric projects department, Mrs. Tsiknakou is responsible for the large and small hydroelectric plants development. In this field is also included the maturity of many pumped storage schemes and hybrid systems, as well as business development, participation in tenders and evaluation of new growing opportunities for the Group.

Mrs. Tsiknakou holds a MSc in Civil Engineering form the National Technical University of Athens and an MBA from Lavern University. She has numerous scientific publications and is a member of several professional bodies.