– 6TH HAEE –

ENERGY TRANSITION SYMPOSIUM

SYMPOSIUM'S REPORT

28 SEP - 1 OCT, 2021

ATHENS, GREECE

THEOXENIA PALACE HOTEL

HAEE HELLENIC ASSOCIATION for ENERGY ECONOMICS

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Introduction

The Energy Transition Symposium is the milestone event in HAEE's annual agenda. Its 6th edition deployed an ambitious program of 32 sessions, gathering approximately 120 top-notch speakers from industry, international institutions, the research community, policy makers, PhD students and other key actors in the energy sector, who greatly contributed to an open and fruitful dialogue, "looking ahead with optimism, beyond the Covid era".

The Symposium that was organized under the auspices of the Hellenic Ministries of Environment & Energy, Development & Investments, Infrastructure & Transport and Foreign Affairs emerged as the ideal forum to discuss energy market and geopolitical issues, develop new partnerships and examine the ongoing impact of the pandemic on the energy sector. The Symposium's Agenda is available in ANNEX I.

For next year, the Symposium will not be a stand-alone event, rather a part of the 17th IAEE European Energy Conference that will be hosted by HAEE in Athens, from 21 to 24 September. The European Conference of the International Association for Energy Economics (IAEE) is an annual event hosted by a different affiliate Association each year that attracts delegates from the most influential government, corporate and academic energy decision making institutions. Thus, for 2022, it will be organized in Athens, and it will be the first physical IAEE European Conference in the post Covid-19 era.

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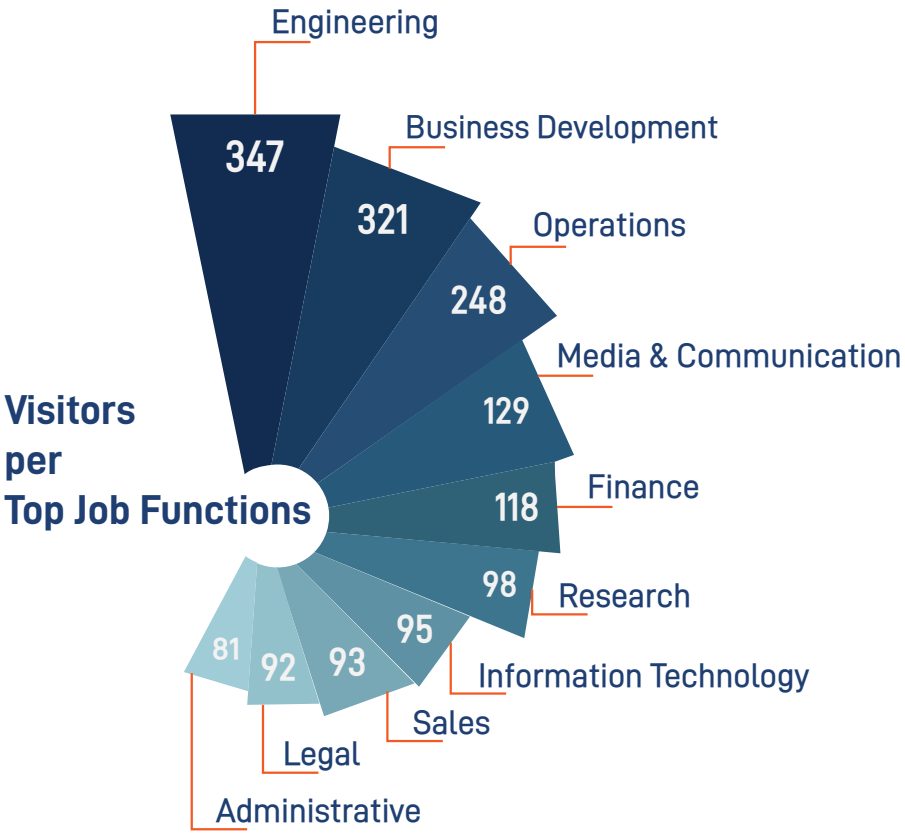
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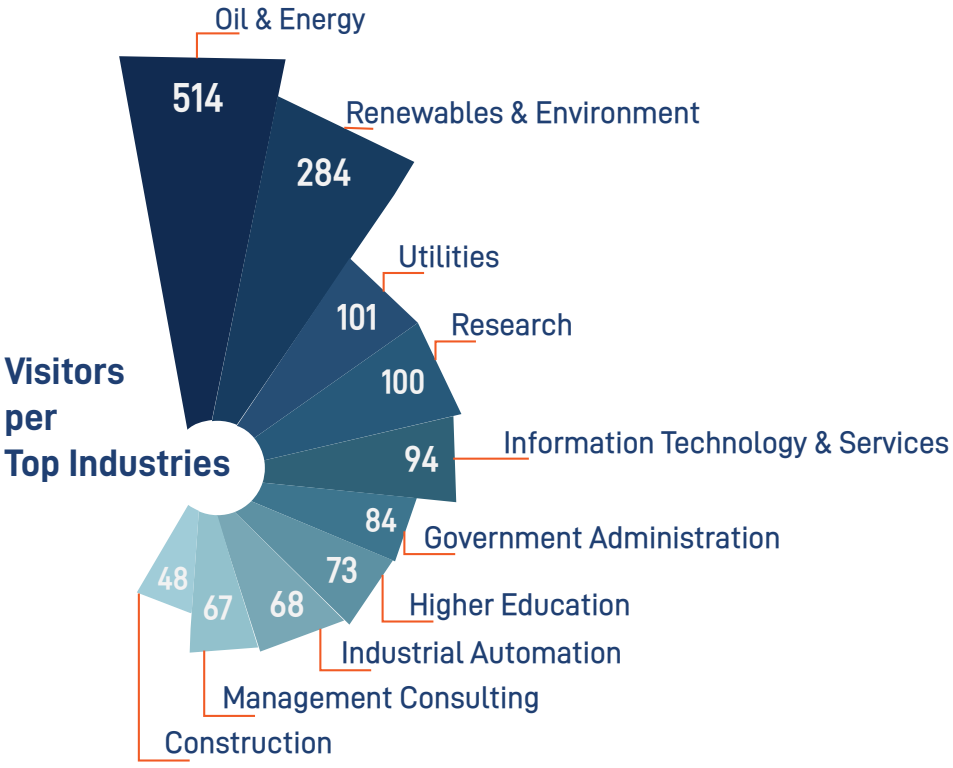
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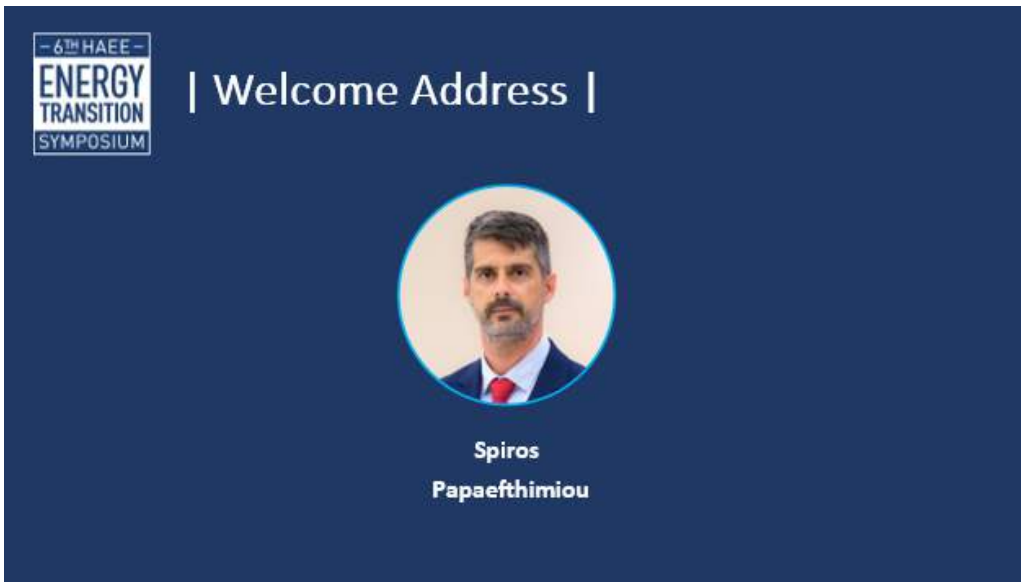


Spiros Papaefthimiou, President of the Hellenic Association for Energy Economics, Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

Professor **Spiros Papaefthimiou**, the President of the Hellenic Association for Energy Economics marked the commencement of the Symposium with his opening speech:

"Ladies and gentlemen,

First of all, I welcome you to the 6th HAEE Energy Transition Symposium and I am very happy, that some of you are here with us, after almost 2 years in the pandemic crisis.

During this year the strong economic recovery, helped by governments and by progress in vaccination has led energy demand to reach pre-pandemic levels and unfortunately the energy costs to be skyrocketed.

The energy crisis we have been facing has highlighted the sensitivity of the energy system, the high dependence of fossil fuels and the need for wider reforms in the sector.

But it shows mainly that the energy transition has to speed up. And it is true, that European Commission has already set the basis with the new legislative package, issued in July 2021, the Fit for 55 Package. The need to deliver 55% cut in emissions by 2030 and climate neutrality by 2050 will ramp up RES and energy efficiency targets: 40% of renewables in the energy mix, instead of 32% and 9% more energy efficiency.

In Greece, it is positive that the NECP is currently updating, including more ambitious targets and implementing new technologies, such as offshore wind and hydrogen. The decarbonization plan of the country and the phase out of lignite plants have to be continued, but we have to be careful and proceed with all necessary investments in order to stabilize and secure the energy system: increased RES along with storage systems, the operation of the necessary natural gas power plants and new RES technologies, such as offshore wind and hydrogen in the long run.

In 2021, the spotlight of the decarbonization has turned also on the islands. During the next years Astipalea, Chalki and other Greek islands will implement green energy, electromobility and other smart innovative technologies, transforming them into innovation labs.

It is evident that the transformation of the country's energy model requires huge amounts of funding, and very important steps have been taken in this direction, mainly with RRF, but also with the Just Transition Fund.

RRF is a great chance for Greece to transform the energy model and attract private national and foreign investments. The ambitious plan Greece 2.0, which is already in force, has devoted 38% of the total RRF allocation to measures that support climate objectives, including among others, investments in electricity grids, energy storage and renovation, which represent the great shift to RES and its effort to combat energy poverty.

On the other hand, and in the energy transition period, where the energy system relies mainly on natural gas quantities, energy security is a main challenge. The current energy crisis with the natural gas price peaks, the shortage of LNG and the reliance on Russian gas pipelines has taught us to diversify our source and seek alternative solutions. Our country has a number of different energy sources and supply routes but new projects should be evolved such as the FRSU of Alexandroupolis, the pipeline with Northern Macedonia and the underground natural gas storage facility of N. Kavala in order to gain even greater flexibility and become a natural gas hub in the area.

Ladies and gentlemen, energy transition is inevitable. While the overall goal of the energy transition is clear, the pathways to efficient decarbonisation are not obvious, and could be varied, based on different contexts. Energy Transition encompasses a mix of traditional oil and gas operations and innovative business models on low carbon and renewable energy products that require a strong collaboration between government, industrial sectors and end users to be effectively achieved in line with EU Green Deal.

All the members of the Hellenic Association for Energy Economics consider the 6th Energy Transition Symposium as a prime opportunity to discuss all these interesting topics. With these words, I would like to welcome you all and say that we look forward to a great Symposium that during the next four days will foster a great exchange of ideas."

KEYNOTE SPEAKERS

Kostas Skrekas, Minister of Environment and Energy, Hellenic Republic
Towards a Green Energy Transition in discussion with:
Andreas Shiamishis, CEO, Hellenic Petroleum S.A.

MODERATOR

Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

In his opening speech, **Kostas Skrekas** pointed out the importance of the green transition as a response to climate change. He also addressed the transformation process the energy sector is going through to adapt to challenges posed by the energy transition era. This has given rise to a wide range of challenges which affect not only the European Union (EU) but Greece as a country and its citizens as well.

In considering the energy transition phase in the post-pandemic era and how Greece will respond to this, Mr Skrekas highlighted that the total amount of RRF and ESPA funding for investing in green technologies would be around EUR 16 billion by 2027, while total investments would exceed EUR 44 billion as well as create 150 000 new jobs. In addition to this, Mr Skrekas mentioned that Greece is saving billions of euros by being the fastest country within the EU to decarbonise its energy mix.

Finally, he pointed out some of the actions the Greek government is taking regarding the electricity market and how it will balance after the implementation of the Target Model, along with the corresponding instability that has occurred. Mr Skrekas stated that the most important actions are the expansion of liquidity and hedging instruments, the activation of the gas market and the creation of links between the two, the promotion of crucial interconnections and the EUR 200 million that will be invested in battery storage by the first quarter of 2022.

In regard to the energy transition phase and especially in view of the post-COVID period and rising wholesale electricity prices, **Andreas Shiamishis** mentioned that the challenge which lies ahead, consisting mainly of environmental sustainability, security of supply and rapidly rising energy prices, is extremely difficult and should be treated carefully. As he mentioned, however, challenges that could be expressed in many ways should not prevent policymakers and public authorities from engaging in this process.

In addition to this, Mr Shiamishis stated that more than 50% of worldwide energy production is based on liquid hydrocarbons, hence, as he mentioned, it would be difficult and unsustainable to pledge for the total unshackle from hydrocarbons. On the contrary, products and materials which were made using hydrocarbons need to be made in a more sustainable and environmentally friendly way, for example, using blue hydrogen, biofuels, and recycled plastics.

Finally, Mr Shiamishis mentioned that it is extremely difficult to predict what is going to happen on the road to implementing "Fit for 55", but in his opinion, commodity prices are going to increase during this transition phase from lignite and fossil fuels to RES, while the technological frontier will accelerate in favour of RES. He concluded that, at the end of the transition period a balance between prices and technology will be achieved.

KEYNOTE SPEAKERS

Peti Perka, Member of Parliament Florina; Deputy Head of Environment & Energy Sector, SYRIZA

Giorgos Arvanitidis, Member of Parliament Thessaloniki B; Director of Environment and Energy Sector, KIN.AL.

MODERATOR

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

In her speech, **Peti Perka** pointed out that the symposium is taking place at a crucial time in which the energy crisis and changes in the energy market are among topics calling for political intervention. As she highlighted, the COVID-19 pandemic introduced more uncertainty to the existing climate crisis challenge, which has in turn created the need to implement new policies.

Ms Perka, however, foresees an opportunity forming in the post-pandemic era which specifically concerns the energy transition process. This opportunity lies in the absorption of available funds generated through the recovery and resilience plan and from the 2021-2027 long-term EU budget. As she mentioned, this may be an opportunity to reconstruct the Greek economy while incorporating digital transformation and the green transition.

Finally, she mentioned that even if there is an agreement regarding the available funds for enhancing the green transition, political convergence in Europe and in the rest of the world is critical for the future of society. Ms Perka concluded stating that the objectives which should be achieved to accomplish the energy transition are clear, but the question of how they should be achieved remains.

In his speech concerning the energy transition phase in the post-pandemic era, **Giorgos Arvanitidis** addressed the fact that the energy transition is happening in the context of a totally new reality, not only with regards to energy

but also society, economy and politics. In addition to this, he mentioned that the reduction of fossil fuels should be done in a social manner by providing guarantees for energy security, so the country can establish its energy independence.

Furthermore, Mr Arvanitidis stated that on the road towards a climate neutral economy, every political decision has a social and economic impact. In this sense, he mentioned that the financial, social, and environmental cost of each specific action should be assessed via a special cost-benefit analysis.

Finally, in the last part of his speech Mr Arvanitidis highlighted the need to establish energy democracy. For this purpose, he suggested thinking of consumers as prosumers so they can produce energy and hence lower its cost. In addition to this, he proposed to give energy communities power and so move from a concentrated model of energy production to decentralised RES for the benefit of the environment and consumers.

SPEAKERS

George Ioannou, CEO, Energy Exchange Group
Konstantin Konstantinov, CEO, Independent Bulgarian Energy Exchange
Miloš Mladenović, Managing Director, SEEPEX
Septimiu Rusu, Development Manager, Romanian Commodities Exchange

MODERATOR

Victor Grigorescu, Former Minister of Energy, Romania

In his speech, **George Ioannou** highlighted major developments taking place concerning the evolution of prices and all other aspects of markets related to energy and specifically to electricity, while at the same time mentioning that power exchanges are at the centre of such developments.

In regard to rapidly increasing prices, the extreme price volatility that markets are currently facing and the mitigating role RES could undertake, Mr Ioannou mentioned that evidence has shown that prices are significantly reduced when RES are highly involved in the energy mix. Therefore, he concluded that the expansion of RES is an important step towards price reduction. In addition to this, he pointed out the need to leverage interconnections to achieve price convergence between trading countries.

Concerning the future of the energy markets, Mr Ioannou highlighted the need for regional coupling, mentioning that it is very important for the entire power exchange process to move forward and adapt to the new post-covid era. Finally, he highlighted the use of the gas trading platform anticipated by the end of 2021, as he believes it will further contribute to the mitigation and control of electricity prices.

In his speech regarding the status of electricity markets and rapidly increasing prices, **Konstantin Konstantinov** pointed out the importance of interconnections, specifically concerning Bulgaria, highlighting the importance of the recently established Greece-Bulgaria interconnection and its usefulness towards a less stochastic price evolution.

In addition to this, Mr Konstantinov mentioned that interconnections increase liquidity, which is vital part of market efficiency, yet he pointed out that to leverage this aspect of the interconnections, effective usage of the transmission capacity should occur.

On the downside, he emphasised the lack of training observed among market participants and mentioned that an increase in knowledge is vital for the exploitation of market instruments and that in this way the level of transparency increases as well.

In his speech, **Miloš Mladenović** mentioned that the post-covid era enforces the need for change. He specifically highlighted the countries' endeavours to establish their own power exchange, while emphasising that besides the technical element of market coupling, the business aspects need to be treated carefully.

Mr Mladenović defended his position of enhancing cooperation not only within the country but cross-region as well by stating that this would be the only chance for small companies to stay on track while serving the greater good, which is efficient market operation. In addition to this, he highlighted the need to discuss affordability of energy, as well as the transition and decarbonisation.

Regarding future steps, Mr Mladenović pointed out the need to implement new products in the power exchange to provide all participants with hedging instruments and thus increase competition and market efficiency. He also mentioned that policymakers should consider the creation of a flexibility market and the introduction of new initiatives to include RES in the energy mix.

In his speech, **Septimiu Rusu** addressed the fact that electricity markets are going through a transformation process which enforces the need for cooperation. He stated that, in this way the market would operate more efficiently and have a positive impact on controlling price uncertainty.

Mr Rusu expressed his disagreement concerning state intervention on energy prices, which means that he defended his position for non-regulated prices, as he believes this is the best way for the market to find its balance.

Finally, he mentioned that under the current circumstances and regarding the transition phase which still lies ahead, competition ensures market operation which in turn enhances new investments, not only in RES but in new technologies, namely hydrogen production in battery storage.

SPEAKERS

Maria Christantoni, Sustainability Officer, Hellenic Republic Asset Development Fund
Theodora Antonakaki, Director of Climate Change and Sustainability Centre, Bank of Greece
Pantelis Capros, Professor of Energy Finance, National Technical University of Athens
Edmond Airantzis, co-Founder, New Energy Partners
Haris Doukas, Associate Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA); General Secretary, HELORS

MODERATOR

José Maillet, Head of Gaia, Audencia Business School

In her speech, **Maria Christantoni** defined the driving forces for the transition to a more sustainable energy system. In her opinion, these forces include the climate emergency and rising temperature, overconsumption of natural resources and the environmental issues that threaten global prosperity. As she mentioned, for the energy system to overcome these challenges and contribute to sustainable development, we should promote green innovation and climate friendly technologies.

According to Ms Christantoni, the energy crisis, and the transition phase it is going through, generates the opportunity to reconstruct the energy market, which will impact the economy in general. As she mentioned, however, to achieve this reconstruction we need to focus on climate technologies, cross-sector collaboration and the establishment of an updated regulatory framework.

Finally, she concluded by stating which measures should be taken to establish a more adaptive economy. Ms Christantoni stated that more efficient and productive mobilisation of public and private funds is necessary. Moreover, especially in Greece, she highlighted the need to establish a framework for classifying, evaluating, and monitoring sustainable investments which continue to be in line with European standards.

In her speech, **Theodora Antonakaki** tried to highlight the hidden financial risk behind climate change. On the other hand, she revealed the opportunities that are being generated through the transition process and specifically in the post-COVID era.

As she mentioned, climate change contributes to the greening of the global risk landscape as four out of the seven recognised global risks are related to climate change. These four risks are namely extreme weather, human environmental damage, biodiversity loss and climate action failure.

In contrast, she pointed out the opportunity behind this transition process and the climate change reality. She stated that the pandemic can contribute to rebuilding economies towards a more sustainable and green financial system. She mentioned, however, that central banks and supervisors should act in a coordinated manner and constitute a financial system which is resilient to these risks.

In his speech, **Pantelis Capros** mentioned the main pillars and the resulting strategy which policymakers should follow for the energy system to survive the post-pandemic crisis and cope with the changes brought on by the transition phase. According to Mr Capros the main evolution pillars are the establishment of an energy efficient system, the introduction of more renewables in the energy mix and efficient carbon pricing.

As he mentioned, the strategy policymakers must follow should be based on decarbonising power generation by importing RES and storage to the energy mix, transport and heat electrification, production of green fuels such as biomass and hydrogen, and optimising overall efficiency to avoid an excessive increase in electricity prices brought on by RES penetration.

Finally, he highlighted that consumers cannot benefit from the low cost of RES generation and the low level of LCOE as the wholesale price is determined by the price of gas. This is the reason why it should be set as a main strategy pillar.

In his speech, **Edmond Airantzis** addressed the volatility of electricity prices and the need to finance the energy transition.

He mentioned that, beyond increasing investments in RES, other aspects of the sustainable evolution should be considered as well. These aspects, according to Mr Airantzis, are the enhancements of TSO and DSO grids, further usage of transition fuels, i.e. natural gas and hydrogen, and energy efficiency on the consumption side.

According to Mr Airantzis these are the main pillars the electricity market evolution strategy should be based on. In addition to this, he mentioned some new technologies which in his opinion will enhance the energy transition process. These include grid electrification, P2P energy trading, the creation of local micro-grids, demand-side management and the enhancement of existing techniques of data management and analysis.

In his speech, regarding the targets that have been set for 2050 and specifically the "Fit for 55" plan, **Haris Doukas** raised his concerns regarding the most efficient way to succeed. As he mentioned, we need to adapt fast to the new reality as evidence shows a gap of 2.5oC to 3.2oC from 2050 targets will remain. If society, policymakers, public authorities and individuals fail to adapt, further legislation will be required.

Mr Doukas highlighted that the RRF package provides Greece with the opportunity to invest further in new green technologies, which can lead to a further reduction of 1 Gigatons of CO2 by 2050. As he mentioned, however, thereare some trade-offs which need to be considered in implementing a "greenification" project with a social impact. He separated short-term from long-term employment saying that if we want to build a sustainable employment scheme which will support the emissions reduction plan, more money needs to be invested in innovative technologies such as offshore wind power and biofuels.

Mr Doukas concluded his perspective by expressing his thoughts on how ideas and policies for a human-centred society should be promoted. Finally, he highlighted that during this transition period and especially after the COVID pandemic, extreme care should be given to the design of investments and policies, in a sense to incorporate the greater good and prevent employment reduction leading up to 2050.

SPEAKERS

Giorgos Filiopoulos, CEO, Enterprise Greece
Panagiotis Doumas, Director and Member of the Executive Committee, Howden-Matrix
Loukas Lazarakis, General Manager, Head of Energy Unit, Intrakat
Yiannis Yiarentis, President and CEO, DAPEEP
Grigoris Marinakis, General Manager, Voltalia Greece
Konstantinos Mavros, CEO, PPC Renewables

MODERATOR

Tasos Garis, Founder and Director, Garis Partners

In his speech, **Yiannis Yiarentis** laid the foundations for the conversation on the development of RES not only in Greece but in the EU as well. As he mentioned, the integration of energy storage in the energy system is vital for reducing energy price stochasticity, which is introduced primarily due to the increasing penetration of RES and can consequently pave the way to increased RES participation.

In addition to this, he pointed out the need to liberalise the electricity market as, in Mr Yiarentis opinion, this could be the main factor for lowering the price level. As he mentioned, however, this liberalisation can only happen if policymakers establish new legislation and policies for the wider energy environment.

In regard to the future and the post-pandemic era, Mr Yiarentis highlighted the need to establish PPAs and bilateral contracts between producers and major consumers. This will only be achievable, however, in a smooth environment protected by policy.

In his speech, **Giorgos Filiopoulos** addressed the EUR 47 billion which the government has offered as an economic aid to investors of green transition technologies in the form of tax relief or funding. This money contributes to saving jobs, increasing short-term liquidity and facilitating economic recovery in the post-pandemic era.

Mr Filiopoulos stated that, in addition to this and to government support, Greece is an ideal country to invest in - especially the energy sector - when the balance in the energy system is established, as Greece will constitute an energy hub and thus provide an extremely satisfying rate of return.

Finally, he highlighted the technologies which have the best potential while being aligned with the whole transition process - namely, these are hydrogen projects, geothermal energy, hydro energy, biofuels, PV and wind energy, and energy storage.

In his speech, **Panagiotis Doumas** revealed the aspect of insurance on energy assets and the hidden risk behind this type of operation. As he mentioned, the increasing uncertainty of wholesale electricity prices combined with the lack of hedging instruments forces investors to insure their assets.

He stated that insurance companies undertake the risk generated by uncertainty, which pushes fees higher and hence further increases the price of electricity. Consequently, the design of hedging instruments is a necessity for both investors and insurance companies so as to mitigate their risk.

Mr Doumas concluded stating that, at this stage in the development of the renewable energy market in Greece, financial innovation is necessary to support the development of small- to medium-sized enterprises and projects.

In his address regarding the transition phase in combination with the post-pandemic era and how the energy system can cope with the challenges, **Loukas Lazarakis** highlighted the need to enhance RES participation, as he stated the future is undoubtedly in favour of RES.

In regard to demand trends in the forthcoming years and how the system will need to adapt to this, Mr Lazarakis mentioned that electricity demand will undoubtedly continue to show an upward trend and hence it will be necessary to secure the electricity system. Taking this into account, he highlighted that policymakers and public authorities must make sure that installed capacity is adequate to ensure a sufficient supply of electricity is available to all consumers and businesses.

However, he pointed out that licensing procedures consist of several bottlenecks which need to be overcome. This is the only way, as Mr Lazarakis stated, to enhance investments and secure the supply of electricity, especially during this transition phase. Finally, he mentioned that to mitigate investment risk the desired energy mix must be clear and strategically designed and that Greece should negotiate better financing terms from international banks.

In regard to the uncertainty and the unfamiliar circumstances faced by the electricity grid during the post-COVID period and given the transition plan, **Grigoris Marinakis** stated that the Greek electricity system has enough installed capacity to overcome short-term challenges. He also mentioned that the Mediterranean climate is an advantage for Greece, as it increases the IRR of photovoltaics and hence enhances new investments.

In regard to the future and the new trends and technologies that need to be promoted, Mr Marinakis asserted that storage is undoubtedly the next step in the electricity sector. In addition to this, he mentioned that individuals, especially the younger generation, must receive the required training to comprehend the benefits of promoting sustainability and RES.

He highlighted, however, that there is also room for much progress in terms of the regulatory framework regarding new investments in RES. Moreover, he believes that licensing procedures for energy storage and projects for implementing charging infrastructure should be promoted and enhanced by the authorities, so that they are ready when required.

In his speech concerning the transition phase in the post-COVID era and the remarkably high level of wholesale electricity prices, **Konstantinos Mavros** emphasised that the future is undoubtedly in favour of RES production. He maintains that, even when lignite units are idle during the transition phase, prices are driven by natural gas, a fact which has introduced great uncertainty into the market.

Regarding energy transition, Mr Mavros highlighted the need for energy production that is more decentralised, so as to reduce the cost of transition and the infrastructure requirements. He also mentioned that production needs to be digitalised to further reduce the operational costs which affect end consumers. In addition to this, he stated that the energy landscape is in need of more synergies to change the way we produce and construct, with the purpose of further reducing operational costs.

Regarding his view on the future of the energy sector, Mr Mavros pointed out the need for new cutting-edge technologies. These technologies, beyond the widely discussed energy storage, could be in hydrogen production and offshore wind turbines, as Greece needs to rely on technologies that can meet local needs if it wishes to establish a self-sufficient energy market.

Keynote Speaker

Alexandra Sdoukou, General Secretary of Energy and Mineral Resources, Hellenic Republic

In discussion with:

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

In her speech regarding energy transition and the role of the Greek islands in this transition, **Alexandra Sdoukou** highlighted the islands' capacity and how they can significantly contribute to the energy transition. As she stated, Greek islands currently constitute 29 autonomous electricity systems which contribute significantly to the increase in GHG emissions, also stating that power generation on the Greek islands results in the emission of 2.9 million tons of CO2 per year.As Ms Sdoukou mentioned, the islands are a major contributor to GHG emissions, as their reliance on fossil fuels is proportionally comparable to the mainland and this, beyond the environmental impact, forces the cost to be 300% to 500% higher. Consequently, the need for islands to decarbonise is mandatory and as Ms Sdoukou stated, the main pillars for this transition should be interconnections, established RES production plants on the islands, electromobility and sustainable waste and water management.

However, as Ms Sdoukou mentioned, there are some constraints that need to be overcome to successfully unshackle islands from their emissions. These, according to Ms Sdoukou, are the particularities which are specific to each island, including load, terrain and architecture which must be treated carefully in order to avoid any undesired results.

KEYNOTE SPEAKER

Geoffrey Pyatt, US Ambassador to the Hellenic Republic

SPEAKERS

Richard Morningstar, Founding Director and Chairman, Global Energy Center at the Atlantic Council; Former US Ambassador to the Rep. of Azerbaijan, Former US Ambassador to the EU

Samuel Furfari, Professor of the geopolitics of energy, Free University of Brussels

Aristofanis Stefatos, CEO, Hellenic Hydrocarbon Resources Management S.A.

Lucian Pugliaresi, President, Energy Policy Research Foundation (EPRINC)

MODERATOR

Nikos Tsafos, James R. Schlesinger Chair for Energy and Geopolitics, CSIS

In his introductory speech on energy security and the challenges it faces in the eastern Mediterranean, **Geoffrey Pyatt** mentioned that cooperation at country level is a bright spot in the effort to establish energy security in the area.

Mr Pyatt pointed out increasing US investments in Greece especially in RES, battery storage and e-mobility, the benefits of which have not changed because of the COVID-19 pandemic. In addition to this, he highlighted the fact that climate change is the biggest challenge of our age, yet at the same time, constitutes an opportunity to make historic advancements in global prosperity and quality of life. Regarding this challenge, Mr Pyatt emphasised that research should be carried out in new technologies including hydrogen, CCS and energy storage which in addition to protecting the climate will create thousands of new jobs.

Finally, Mr Pyatt mentioned that Greece could play a critical role in ensuring energy supply in eastern Europe and pointed out that, Greece's policy of retiring all lignite production units by 2028 and committing EUR 32 billion of recovery funds towards clean energy renders the country a clear leader in facing transition phase challenges.

In his speech, **Richard Morningstar** mentioned that to attract new investments which will serve the energy transition process and secure energy stability, policymakers should first focus on resolving any geopolitical issues in the Mediterranean, though the countries involved have taken major steps forward during the last year.

Mr Morningstar believes the existing situation in which gas has an impact on electricity prices will remain, as the electricity mix will be highly dependent on natural gas and gas markets during the transition phase. For this reason, he stated that we cannot disregard gas but we must make progress on making it more environmentally friendly. In addition to this and specifically regarding the state of Greece, he suggested Greece act as an energy hub between the Balkans and the eastern Mediterranean by leveraging the existing infrastructure.

In his opinion, however, there are risks which are mainly related to the geopolitical issues of concern to Mr Morningstar, though he claims these risks could be overcome through strategic alliances and cooperation.

In his speech, **Samuel Furfari** highlighted the cruciality of the islands for the energy transition process, especially in the Mediterranean where there are a lot of islands which do not contribute anywhere near their full potential to the greenification of the energy mix.

Regarding security of supply and his view for the future of the energy mix, Mr Furfari mentioned that securing the supply of gas would be crucial not only during the transition phase but afterwards as well. As he pointed out, there certainly are risks involved, which are mainly based on political incentives, however, in his view gas is the only way to secure the system and the supply while achieving targets set by the EU.

Finally, Mr Furfari highlighted the need for gas as a means of securing energy supply by presenting another aspect of it, which is its role as conciliator. As he stated, energy poverty is in some cases the main reason behind war and hence general geopolitical instability. Therefore, as Mr Furfari concluded, gas is necessary if energy justice is to be achieved beyond the Mediterranean on a global scale.

In his address regarding the energy transition phase in the post-COVID era and how energy supply should be secured, **Aristofanis Stefatos** stated that natural gas is undoubtedly the transition fuel which can act as an enabler to this process.

He recommended more clarity, however, regarding the potential of gas to attract new investments and make the right decisions as the energy sector moves forward. In addition to this, as Mr Stefatos stated, policymakers should facilitate private companies operating in the area to enhance transition while at the same time optimising the decision-making process.

Finally, Mr Stefatos pointed out that natural gas is not only the transition fuel but also the stabilising factor, which makes the role of gas more important than ever before. He stated that if Greece has domestic resources which can be monetised, this will clearly help to satisfy a part of national supply, but also to diversify energy sources which is crucial especially when the length of the transition period is uncertain.

In his speech, **Lucian Pugliaresi** highlighted that energy transition poses an extremely difficult challenge and stakeholders should be completely aware of this. He presented the challenge from a global perspective stating there are multihabitat countries which rely heavily on fossil fuels and, if prosperity and energy supply are the main objectives, it would ultimately make the transition complicated.

Mr Pugliaresi challenged the fact that gas prices are high as a result of the transition process, as he maintains the main reason behind the level of prices is policy, which is leading the energy sector towards a riskier fuel mix. As regards the large-scale implementation of new technologies, Mr Pugliaresi stated that progress can certainly be achieved, yet it would be enormously difficult to cover electricity needs by 2050 with hydrogen and biofuels. He stated that the main strategic pillars for success should be management of consumption behaviour and electrification.

Finally, Mr Pugliaresi went on to raise his concerns about the non-convergence between OECD and non-OECD countries and stated that, the energy gap between developed and developing countries has created a two-speed energy transition which further enforces the difficult challenge of transition.

DAY 2, Wednesday, September 29, 2021

PROCEEDINGS

KEYNOTE SPEAKER
Spilios Livanos, Minister of Rural Development and Food, Hellenic Republic

Spilios Livanos began his speech by mentioning that climate change is an existential real-life problem that is especially apparent in the vulnerable Mediterranean basin. Unprecedented heatwaves of this past summer, as well as extreme weather during the past spring, are just some events that recently occurred. He pinpointed the bi-directional linkages between the environment and agriculture by listing four of the main challenges, which include: land degradation linked with desertification, damage to water availability and pollution of water resources, limitation of biodiversity habitats and loss of yields due to climate change effects.

Under these circumstances, decision-makers are responsible for re-structuring and re-designing the production chain model, the way the society consumes and the way it produces various commodities. This is the reason the European Union's decision to set green development and environmental protection as its core principles is of crucial importance. The new common agricultural policy (CAP) integrates the fundamental characteristics of the European Green Deal for climate-neutral Europe, laying the foundations for better management of natural resources and consequently, the mitigation of negative environmental impacts.

The Ministry has worked rigorously on the formulation of the national strategic plan that will be submitted to the European official authorities by the end of December. The Minister highlighted various involvements at the European and national level towards the development of innovative technologies, actions against desertification, agricultural waste management, domestic biofuel production, as well as RES in the agricultural sector.

In his closing remarks, he pinpointed the need for inclusive participation of all actors – ranging from academia to state representatives, to keep our planet safe for future generations.

SPEAKERS

Giorgos Patoulis, Governor of Attica Region
Konstantinos Gioutikas, Vice-Governor of Development and Environment, Central Macedonia Region
Dimitris Papastergiou, President, Central Union of Municipalities in Greece (KEDE); Mayor of Trikala Municipality, Hellenic Republic

MODERATOR

George Kremlis, Principal Advisor to the Greek Prime Minister on Energy, Climate and Circular Economy Issues; President, International "Circular Clima Institute" of the European Public Law Organization

Giorgos Patoulis pinpointed that there is an urgent need to respond to the effects of climate change effects. According to the IPCC report, extreme heatwave events will occur every 10 years, while in the past they happened every 50 years. The possibility of extreme climate events is multiplied in the Mediterranean. The Governor of the region of Athens stressed that public policy should focus on three elements regarding policy strategies on climate change adaptation at local, regional, and European levels:

1. Integration of smart technologies and AI (particularly the region of Athens will develop a publicly available digital platform that will contain the consequences of climate change effects. Additionally, he announced the development of an observatory of atmospheric pollution at the regional level);

2. Speed up the response to climate change, public health system; and

3. A systematic approach when facing the challenges of multi-centric governance.

Based on the above he concluded with two important remarks:

On the one hand, the challenges that arise from climate change effects exceed the capacity of local government to respond separately. Instead, municipalities can collaborate to unlock financial opportunities and human resources.

On the other hand, the central government cannot effectively micromanage every action against climate change. This is why regional administration plays an important role in connecting national policies and their implementation at the local level.

Konstantinos Gioutikas commenced his speech by pinpointing the important role of local government in the operationalisation of the various policies assumed from the central government, as well as EU funding schemes. He mentioned the urgent need for multiple synergies between local, regional, and national authorities for efficient responses against negative climate change effects suggesting that if we move without collaborative approaches we will not succeed. This is why the enhancement of the regional governance model can maximise positive outcomes against climate change. We should not forget that through regional governance, funding resources become accountable to citizens. Therefore multi-level governance is the only way to generate hopeful impacts against unprecedented climate changes.

Dimitris Papastergiou began by saying that in recent years we have understood even better that climate change is a crisis. Municipalities play an important role in the response to climate change. This is why municipal administration should have a role in decision-making processes.

While there was immense progress towards the operation of new Municipal Solid Waste Treatment plants in municipalities across Greece, it is not enough. Additionally, it is not enough to focus on regulation while there is no focus on operationalisation. The most important challenge is to educate our citizens, especially during the early years of their life in school, about the importance of waste collection from its source of origin. In the framework of the events that are planned for Christmas celebrations, we plan to use zero plastic which is a measure that we intend to extend to the entire city.

Regarding natural resources, he mentioned the need for urgent actions to use financial instruments aiming to support water-related infrastructure, drainage systems as well as the necessity to utilise smart technologies in cooperation with the Civil Protection Agency.

SPEAKER

Anastasios Manos, CEO, Hellenic Electricity Distribution Network Operator

MODERATOR

Thodoris Panagoulis, Editor in Chief, energypress.gr

Anastasios Manos began his speech by mentioning the ambitious business plan of HEDNO, which includes investments of up to 3 billion euros for the next eight years. Around half a billion will be distributed towards supporting the NECP. Regarding engagement with customers, Mr Manos mentioned that several steps have been taken towards the simplification of submission procedures, such as on RES and electric cars. An important challenge that the organisation is facing is electricity theft. A means of response includes two parameters. The first, smart charging and secondly, through human inspections in the field. Lastly, regarding the saturation of the grid, Mr Manos mentioned that there are plans to expand the grid and its substations.

KEYNOTE SPEAKER

Enrique Rubio Viguera, Spanish Ambassador to the Hellenic Republic

SPEAKERS

Arslan Khalid, IRENA Representative
Andrew Scorer, Lead Freight Analyst, S&P Global Platts
Michael Schmela, Executive Advisor and Head of Market Intelligence, SolarPower Europe

MODERATOR

Nektaria Karakatsani, Advisor to the Minister of Environment and Energy, Hellenic Republic

Enrique Rubio Viguera commenced his speech by highlighting the targets of the European Green Deal as well as the Fit for 55 package. He mentioned the significant role of gas price increases in driving the final electricity prices across Europe. Such increases in price had various impacts on supply chains, resulted in inflation and reduced disposable income for poorer households, affected economic activity which led to social tension and unrest. Estimations depict that the increase in production of LNG, the normalisation of supply from Russia and Norway, gas stock replenishment and better weather conditions could reduce the high prices of electricity. Under this framework, the European Commission will prepare a toolbox to respond to price spikes. Although short-term measures from national governments to protect more vulnerable households are a necessity, it is not the best long-term solution. The EU should contribute to a legislative framework to support national policies towards climate targets. Both the Green Deal and the Fit for 55 package are not enough as standalone actions. Much progress still lies ahead regarding legislation to reach such ambitious targets.

Arslan Khalid stressed the objectives at the core of the European Green Deal, that cross the sectoral boundaries of energy and aim for synergies between the economy and society. Energy transition includes far more than energy

technologies but also includes, for example, the development of human capital, biodiversity, etc. According to IRENA scenarios, 1.5°C is still possible with major contributions by hydrogen and carbon removal technologies by 2050. In terms of capital investments, we need EUR 33 trillion to reach the targets or EUR 3.4 trillion per year. Such investments will create 122 million jobs in the energy sector, 43 million jobs in the renewables sector while shifting Global GDP upwards. In the EU, 1 million net job gains will be created as well as a 7% increase in the total GDP in Europe.

Andrew Scorer began his speech by pinpointing the plethora of technological advancements in the shipping industry but the limited availability of fuel. The global shipping sector accounts for around a 2-3% share of total CO2 emissions. To reach the target of a carbon-neutral shipping sector, several steps need to be accomplished towards better-framed regulation and economic burdens clarification. There is a debate in the shipping industry regarding which sector will be responsible for providing the shift to buying low-carbon ships.

Michael Schmela stressed that the Fit for 55 package will lead the energy transition in the right direction but there is still room for improvement, particularly for solar energy. Mr Schmela estimates that solar energy capacity will surpass the targets set within the Fit for 55 package. Additionally, he pinpointed the need for the revision of permitting articles with respect to REDII operations. Moreover, Mr Schmela mentioned the strong business development potential for renewable hydrogen. Solar energy contributes more than any other energy technology to job creation with predictions estimating about half a million jobs by 2024 in the solar industry.

SPEAKERS

Athanasios Dagoumas, President, Hellenic Regulatory Authority for Energy
Andreas Poullikkas, Chairman, Cyprus Energy Regulatory Authority

MODERATOR

Jean-Michel Glachant, Director, Florence School of Regulation; Holder of the Loyola de Palacio Chair

Athanasios Dagoumas began his presentation by emphasising RES flexibility challenges as well as the daily and monthly variation of the supply mix of electricity. Additionally, he mentioned liquidity and equity challenges that should be addressed to boost the penetration of RES. Regarding the market, RAE has developed a market reform plan consisting of six work packages which will be accomplished in close cooperation with other relevant stakeholders including IPTO, HEnEX, HEDNO, YPEN, RES&GO Operator. At first, short-term goals are of high priority and consist of reforms on flagging of dispatch volumes in the Balancing market, the integration of the intra-day market, and further enhancement of competition through an increase in market participation. Mid-term reforms are focused on the activation of the scarcity pricing mechanism, development of portfolio-based bidding, exploration of self-scheduling and central dispatch, participation in the EU balancing platforms (MARI/PICASSO) and the initiative towards the TSO-DSO Coordination Platform. The second action package is prepared to deliver solutions on cross-border interconnection issues with neighbouring countries, inland interconnection issues on Greek islands, the Southeast Electricity Network Coordination Centre as well as the reinforcement of the transmission system. The rest of the packages are about reforms on the retail market (i.e. market monitoring and surveillance mechanism), liquidity of forward market (i.e. software extension and enhancement), investment support (i.e. support of RES), price limits and other restrictions – lifting (i.e. lifting of 20% cap on physical contracts of vertically integrated suppliers). All this work has to be in close cooperation with all institutional stakeholders, we have the culture to

cooperate, and we provide the signal to all institutions to work closely, on time, with specific deadlines. This is in favour of the market, energy transition, investments and finally consumers.

Andreas Poullikkas prepared a presentation focusing on the energy transition for island systems, short- to mid-term challenges (large scale integration of RES) as well as mid- to long-term challenges (role of interconnection and hydrogen). The isolated island systems are characterised by high fuel costs - economies of scale cannot be adequately exploited, as well as a need to maintain high reserve capacity to ensure power system reliability. The smaller the electrical size, the more financial needs will be demanded. This is why increasing the system's flexibility (RES integration, natural gas, storage, e-mobility), establishing electricity interconnections and production of hydrogen from RES would be beneficial. Given the unique circumstances, the regulatory authority played an important role in this direction. In Cyprus, ambitious targets could be set by 2050, such as the reduction of Greenhouse Gas Emissions by 100%.

SPEAKERS

Konstantinos Aravossis, General Secretary of Natural Environment and Water, Ministry of Environment and Energy, Hellenic Republic
Ricardo Raineri, Professor at Pontificia Universidad Católica of Chile, Former Energy Minister of Chile; Member of the WG on Energy Transition, UN DESA
Anastasios Tosios, Deputy CEO, EYDAP
Agis Papadopoulos, Chairman of the Board, EYATH; Professor, Aristotle University of Thessaloniki

MODERATOR

George Kremlis, Principal Advisor to the Greek Prime Minister on Energy, Climate and Circular Economy Issues; President, International "Circular Clima Institute" of the European Public Law Organization

Konstantinos Aravossis began his speech with an overall summary on how the world is responding to climate change. While several targets are being set by countries to reduce GHG emissions, this is not enough. There is an urgent need for a holistic framework to be adopted. The EU countries contributed towards this direction by setting up the Green Deal and initiating targets to reduce GHG emissions by 55% by 2030 and to reach carbon neutrality by 2050. The EU Green Deal is a growth strategy that aims for a fair and prosperous society. Greece is strongly committed to reaching climate targets. In 2019, the revised NECP triggered an ambitious trajectory for a carbon-neutral country by 2050, consisting of decommissioning all lignite power plants by 2028 at the latest, the intensive promotion of RES, improvement of energy efficiency, promotion of clean transport as well as the important interconnection of the Greek islands.

Ricardo Raineri began his presentation by providing Chile's historical evolution of CO2 emissions as well as the share of energy-relevant emissions by sector. Additionally, he shared the key targets of mitigation and adaptation, components that are entailed in the country's NDC. The strategy of the country is to enhance electromobility, regulate carbon neutrality by 2050, decommission all coal power plants by 2040, produce green hydrogen, considerably increase the contribution of renewables, as well as to support various innovations and science schemes as enablers of effective policymaking. Given the sensitivities of the mining industry, the government launched an international bid with the aim to create an institute that will enhance insights on solar energy – solar fuel cells, sustainable mining and enhance materials – lithium-relevant technologies.

Anastasios Tosios began his presentation by mentioning the important role that EYDAP plays at the national level as the largest water supply company. The challenges and opportunities which lie ahead include non-revenue water and leakage reduction, aged distribution networks, the need for utilisation of the Internet of Things, a customer-centred approach and use of modern technologies, climate change, energy efficiency and resilience, as well as water recycling and reuse. EYDAP consumed more than 12.5% of energy coming from renewable sources while respectable quantities of energy came from self-owned power generation technologies. The transformation strategy of EYDAP includes three pillars spread across six projects with the common aim to reduce the OPEX by 10%, but also to boost relevant investments. Additionally, Mr Tosios shared the mid- and long-term vision corresponding to strategic and tactical ambitions towards a zero-carbon water sector. In conclusion, Mr Tosios mentioned the incorporation of recognised ESG standards such as SASB and GRI to the operations of EYDAP.

Agis Papadopoulos highlighted the inextricable linkages between the operation of the water-energy sectors. On the one hand, energy is needed for the operation of the water sector (water pumping, wastewater treatment, water extraction, etc.). On the other hand, water is needed for the operation of the energy sector (power plant cooling, refining, processing, resource extraction). In the EU, many countries experience water stress conditions which further increase the pressure on natural resources. According to current information, the European countries that rely on coal power plants consume significant water resources to support the operation of the energy sector. Considering the above, EYDAP is moving towards reducing water loss, improving energy efficiency and also mobilising RES to decarbonise its operations. Specifically, the targets are being set to reduce the non-revenue water and carbon footprint by 50% by 2030, in addition to reducing the water footprint by 20% by 2030.

KEYNOTE SPEAKER

Gerassimos Thomas, Director General Taxation and Customs Union, European Commission

In discussion with:

Kyriaki Kosmidou, Professor in Banking Finance, Aristotle University of Thessaloniki; Vice-President, Hellenic Association for Energy Economics

Gerassimos Thomas spoke of comprehensive EU packages that act as an accelerator to climate policies. In order to reach the objectives - targets contained in the climate laws, it is necessary to employ all the policy tools. Therefore, the law package adopts a holistic reform, with market reform measures (ETS system), regulatory measures (e.g. on transport transformation, acceleration of RES deployment, aviation, maritime, etc.) and puts further weight on green taxation. Our intention is to change the way we tax. Instead of having volume-based taxation which gives an advantage to fossil fuels, we will tax energy according to the energy content. Additionally, we will prioritise laws that disincentivise fossil fuels. For example, in the transportation sector, fossil fuels will cost tremendously more compared to electric cars, biofuels or less intensive carbon fuels.

SPEAKERS

Giannis Klavdianos, CFO, Coordinating Director of Accounting & Finance, DEDA
Harry Damaskos, Principal, European Bank for Reconstruction and Development
Despina Tomadaki, Senior Loan Officer, European Investment Bank

MODERATOR

Thomas Lamnidis, Managing Director, Lamnidis Law; Principal and Legal Advisor, Savvy Business sLTD

Giannis Klavdianos stated DEDA is the newest network operator in Greece following the unbundling of natural gas distribution. The operating objective in this particular timeframe is to expand our customer base among commercial, residential and industrial consumers. The role of natural gas is crucial concerning both its usefulness as a bridge fuel towards energy transition but also sustainable development. DEDA's development programme is the largest distribution network expansion project among DSO's currently implemented in Europe. At the same time, it is a unique project for Greece in terms of scope and implementation speed. DEDA is the first operator in Greece that is greening its networks by upgrading them to biomethane and red hydrogen. According to research, biomethane could cover 30% of projected consumption in 2025 and 15% of projected consumption in 2043. Even though more steps need to be accomplished for privatisation, DEPA's top management strongly believe that the privatisation of DEPA's infrastructure will foster innovation and proper sustainable networks.

Harry Damaskos mentioned the European Bank has invested around EUR 5 billion euros in debt and equity so far, as well as that Greece is one of the top countries in terms of volume invested. In terms of privatisation, several steps have been made towards reinforcing direction.

Despina Tomadaki mentioned the main reasons that the EIB abstain from financing fossil fuels including gas. While the Bank recognises gas as a bridge fuel, there are already many sources that could fund such projects. Instead, the Bank aim to support more innovative projects that use alternative fuels in the framework of the energy transition, such as DEDA's use of hydrogen. The European Investment Bank possesses the technical knowledge to identify ambitious energy transition projects across the world, provide technical assistance to interested parties and provide relevant funding.

SPEAKERS

Nuno Marinho, Head of RES Integration and Flexibility, NEW R&D - Centre for New Energy Technologies, EDP – Energias de Portugal, Coordinator of IANOS project
Spyros Economou, President of the BoD, CRES
George Kavvouras, General Manager, Omexom/Vinci Energies Hellas
Vassilis Kalavrouziotis, Head of Software Development & Energy Management, Eunice Energy Group
Nikos Chatziargyriou, Professor, National Technical University of Athens; Past Chairman and CEO, HEDNO

MODERATOR

Pierre-Jean Cherret, VP New Business & Innovation, Items International

Nuno Marinho mentioned that EDP operations focus on R&D in energy, through international collaboration and competitive EU funding. Presently, there is a portfolio with 31 projects of which 27 are funded through Horizon 2020. The thematic focus is on Smart energy systems, RES, Energy communities, Integration & flexibility as well as digitalisation. The IANOS project holds important relevance. This is because approximately 3.5% of the European population resides on the islands. Given the absence of grid interconnection as well as specific geographical sensitivities, energy costs up to 10 times more than on the mainland. Therefore, RES does not only seem to be a cost-effective alternative but also, a method that contributes to the mitigation of CO2 emissions. There are six key objectives contained in the IANOS project. Firstly, facilitation to adopt RES on islands. Secondly, demonstration of specific technology-driven interventions. Thirdly, collaboration with decision-makers to design cost-effective and feasible action plans. Fourthly, involvement of citizens in the planning process. Fifthly, the applicability of IANOS materials in various cases across islands. Lastly, knowledge exchange and transparency while supporting fragmented regulation on islands.

Spyros Economou commenced his remarks by pinpointing CRES involvement in key island projects as well as the main pillars of the sustainability strategy of islands to reach zero carbon emissions. RES and energy efficiency have a meaningful impact on society, the economy and technology. Consequently, policymakers need to overcome various challenges that lie in the transition towards island decarbonisation by 2050. According to Eurostat, the energy sector contributed to more than 60% in GHG emissions while industrial processes contributed to more than 11%, and agriculture approximately 8%. The strategy for the decarbonisation of the islands is formed by five main elements: design the decarbonisation process, electrification of key GHG emitters, societal inclusiveness, innovation and digitalisation towards the creation of smart microgrids and lastly, development of a competitive market. On top of these, islands are ideal for the creation of Local Energy Communities. Regarding the adoption of RES, wind and solar seem to be the most cost-competitive alternative concerning the Levelized Cost of Electricity (LCOE). The combination of RES and microgrids will modernise the traditional electricity system. Microgrids play a key role in energy security in terms of supply to end-users. Additionally, there is optimal control of the operation of power systems and distribution networks. Lastly, Mr Economou presented as case studies the operation of two successful autonomous microgrids on the islands of Agios Eftstratios and Kythnos.

George Kavvouras began his presentation by mentioning the vision of Vinci about smart cities as well as the underlying challenges. Furthermore, he presented the digital toolbox that Vinci uses for smart operations. Vinci's vision includes the smartification of buildings, parking spaces, city networks, airports, waste management, lighting and electromobility. Vinci is an important participator in the Greek-French collaboration project that takes place on the island of Chalki. In order to reach the objectives, the stakeholders involved are responsible for delivering RES related infrastructure, public lighting with smart systems, charging stations, upgrade of the telecommunication network, as well as electric vehicles. According to estimations, the operation of this project will lead to a significant reduction in carbon generation. Additionally, approximately EUR 260 000 will be saved in a year due to the penetration of RES.

Vassilis Kalavrouziotis centred his presentation on the Tilos paradigm and energy independence. Mr Kalavrouziotis mentioned that Tilos is the first autonomous island in the Mediterranean deploying a hybrid energy power system. This hybrid system comes with a plethora of advantages such as the maximisation of sustainable energy production, production of cheaper energy, etc. After three years of operation, the total electricity generated is equal to 3 300 MWh thus saving approximately 3 000 tons of CO2. The economic benefits account for approximately EUR 39 000 while the reduction in fuels costs are around EUR 510 000. Looking forward, Eunice plans to extend its expertise to other Greek islands such as Leros, Anafi, Donousa, and Fournoi. Based on Eunice's expertise, a platform has been developed for small scale installations called "Aftonomo" [Autonomous]. This platform comprises the production, storage, smart management of green energy. "Aftonomo" is currently implemented in several projects across Greece and lists a plethora of outcomes regarding economic and energy savings, energy autonomy, as well as carbon reduction.

Nikos Chatziargyriou began his presentation by mentioning the key reasons that RES penetration in interconnected islands is essential. Based on three pilot projects, RES penetration was achieved in three non-interconnected islands. Based on the Astypalaia island, the optimal combination of RES technologies with the highest internal rate of return (IRR) and RES penetration beyond 60% would be a hybrid system comprised of 0.4 MW of solar, 2 MW of wind and a 2 MW / 8 MWh storage system. This combination could lead to a significant reduction of electricity generation from thermal units as well as a 73% contribution of RES to meet annual demand. At the same time, RES poses some limitations when implemented on islands such as the technical minima of thermal power plants that need to be preserved in order to ensure the security of supply. In conclusion, high RES penetration in non-interconnected islands can be achieved by the deployment of hybrid systems. The aforementioned pilot projects show that it is feasible for annual RES annual penetration to be between 60% and 87%, with an IRR of more than 8%, load covered exclusively by RES many times throughout a year, as well as a substantial decrease of fuel costs and CO2 emissions.

DAY 3, Thursday, September 30, 2021

PROCEEDINGS

KEYNOTE SPEAKER

Adonis Georgiadis, Minister of Development and Investments, Hellenic Republic

SPEAKERS

Aristotelis Chantavas, Head of Europe Area, Enel Green Power; President, SolarPower Europe
Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

MODERATOR

Haris Floudopoulos, Journalist, capital.gr

Adonis Georgiadis argued that in two years of governance, the capitalisation of PPC has risen from EUR 350 million to EUR 2 billion. With the sale of 49% of HEDNO, PPC received EUR 2.1 billion for servicing its debt and gaining greater liquidity, and announced an EUR 8.5 billion investment programme in the renewable energy sector.

The lignite phase-out should continue since the operation of lignite power plants is unsustainable at EUR 60 per ton of CO2. The Government has secured EUR 5 billion in funding for the delignitisation process, in close cooperation with the European Commission, and has changed the regional aid map for important investment incentives. The decarbonisation of the country saves money due to the rising prices of CO2 and provides extremely favorable financing conditions and a better environment for citizens.

The Greek and foreign investors showed great interest in renewables since there are enough investments to achieve energy independence within two months if there were a way to license all investments at the same time. Upgrading the grid will help the system to cope with the new power plants. Speeding up the legal process is critical to

accelerating renewables penetration. There is an urgency to convince people that more renewables are leading to cheaper electricity and a better environment.

In concluding his speech, Mr Georgiadis pointed out that digital public governance, simplifying legislation and removing bureaucratic barriers and public advocacy by the government are prerequisites for long-term investments.

Aristotelis Chantavas stressed that the recent energy crisis in Europe is due to rising gas prices, for which Europe is dependent on Russia. This crisis is a key argument for intensifying the decarbonisation process and speeding up investment in renewables with greater determination in measures and policies because renewables are the most cost-competitive technology, which in combination with energy storage applications, will ensure energy independence.

The investments need a stable regulatory and licensing framework, which adapts rapidly to changes. Social awareness about renewable energy is crucial and companies nowadays are running information campaigns, focusing on sustainability and local well-being providing a common shared value with local communities.

Kostas Andriosopoulos pointed out that the energy transition should not be delayed but accelerated. The rapid licensing of renewable energy projects is crucial for their development, either through tenders or bilateral contracts. Natural gas should not be demonised since it is an essential fuel to the energy transition. EU Green Deal, Fit for 55, and other clean energy policies and roadmaps are welcome, but each country must look at its particularities and specificities in terms of existing infrastructure, interconnection capabilities, and geopolitical characteristics.

Our country is being transformed into an energy hub, interconnections are being made with neighbouring countries, in natural gas and electricity networks, to lead us into the green energy transition. The energy transition strategy must remain stable, regardless of which government is in power, as it concerns the country's path in 10, 20, 30 years ahead.

Mr Andriosopoulos highlighted the importance of reskilling, upskilling of the workforce in the lignite areas, and the training of children and young people on new renewable energy technologies not only in these areas but at a national level.

SPEAKERS

Maria Rita Galli, CEO, Hellenic Gas Transmission System Operator S.A.
Konstantinos Eleftheriadis, Partner, Energy Industry Leader, Deloitte
Nikolaos Koutsogiannis, Advisor to the BoD, HENGAS S.A.

MODERATOR

Dimitris Pefanis, Director of Financial and Business Content, DPG Digital Media

Maria Rita Galli pointed out that in the context of decarbonisation two main pillars are identified as crucial - the existence of both electricity and gas networks since there are end-uses which cannot be decarbonised to electricity and sector coupling where decarbonised gas will play a key role. Hydrogen, which can be produced from natural gas with CCS and renewables will enable this integration through power to gas technologies and long-term energy storage. The new pipelines which are being built are 100% hydrogen certified and an ongoing hydrogen readiness study will define a concrete path of adaptations and the kind of investments that will enable the system to be future hydrogen proof.

A pipeline is a highly effective way to transport energy since pipelines can transport hydrogen for distances up to 5 000 kilometres and in general, they cost one eighth in terms of gas versus electric transmission. Ms Galli highlights the importance of an integrated value chain of hydrogen to materialise and speed up hydrogen development and the White Dragon project in western Macedonia will step up the production, consumption, and transportation of hydrogen within the market.

Greece has an unexplored potential for biomethane production from agriculture and urban waste. DESFA will develop a pilot project for biomethane self-consumption based on a green certificate, accelerating the company's net zero target. This will prove the case for biomethane in the country and will highlight the economic and technical viability.

Konstantinos Eleftheriadis began his presentation by mapping the latest highlights from the global and local gas markets. The pandemic functioned as an accelerator for changes in the industry sector, pivoting to the new energy future and investing in building a nationwide integrated zero-carbon value chain infrastructure. Sustainability and environmental, social, and governance (ESG) criteria are introduced in all investments and funding decisions. EIB, EBRD, and RRF require a measurable beneficial social and environmental impact, greener, more efficient, more digital, and less damaging.

The increasing M&A activity in the energy sector goes hand in hand with strategic transformation, digital acceleration, and financial restructuring. Traditional players will try to keep the pace through organic growth because it is easier, quicker and far more efficient than trying to change their culture, especially now that fresh money is on the table.

In moving towards decarbonisation, natural gas will continue to be attractive due to several factors: the necessary time window to deploy renewable energy investments, the profiling of renewable production against profiling of consumption, the soaring prices of storage, the technological developments in energy that need time and the critical factor of the security of supply.

Gas in Greece also has geopolitical importance and the new gas supply infrastructure will improve infrastructure not only in Greece but in the whole South-East Europe region. Gas will not be abandoned after the extensive deployment of RES since new investments and technologies will bring added value to these projects. The bankability of the projects will play a critical role to get the loans needed for long-term private investments that promote green and digital transition.

Nikolaos Koutsogiannis focused on the major investment programmes that are underway, regarding transport pipelines and LNG infrastructure upgrades, which indicate that natural gas will be the driving force of energy developments in Greece in the next decade. The natural gas distribution network in Megalopoli is currently being constructed and will be the first lignite-related city that will transform its energy model.

A large investment plan of EUR 50 million, 1 000 large commercial and industrial consumers, 30 000 household consumers, and 91 mcm gas per year is being implemented for the creation of gas infrastructure in nine cities of the Greek region (Tripoli, Corinth, Megalopolis, Edessa, Polykastro, Polygyros, Deskati, Naousa, and Skydra). Licenses for new areas of the Peloponnese region have been applied for to RAE and municipalities of western Macedonia are under study.

Within the framework of the energy transition, significant investments for the development of LNG infrastructure are underway and new network types are being selected to transport fuels of the future, such as hydrogen.

SPEAKER

David Livingston, Senior Advisor, US Department of State

In discussion with:

Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

David Livingston highlighted the fundamental role of Greece in the Mediterranean region and the very robust relationship between the USA and Greece, which improves prosperity, stability and increases the cohesiveness of the broad region. The State Department is focused on the increase of energy and climate security and to build upon that. There are promising technological paths to follow, such as green hydrogen and there are some tricky infrastructure questions to be answered if we are going to accelerate this hydrogen economy and the clean energy policy across the region.

Greece's role is not only important for traditional energy security in Europe, but also the diversification of clean energy supply chains, critical minerals, and grid security. The Greek electricity distribution operator is set to make significant investments to increase the share of renewables on the grid and be able to balance better intermittent renewables, to be better prepared for resilience against extreme weather events, in case of fire events and the ability to reduce debt and free up identity to make greater investments in the acceleration of the clean energy transition.

The USA is looking forward to these sorts of thoughtful reforms and the attraction of strategic investments, as well as increases in the level of innovation and technological cooperation as there is an amazing opportunity to implement research capacities with innovation capabilities as best as possible across the EU and Greece.

It is crucial to encourage greater flexibility and more sophisticated valuation of renewable assets on the grid. The use of reverse auctions, for example, the increase of flexibility mechanisms and supported market structures are particularly important as we progress beyond that initial penetration of renewable energy. It is particularly important to have more sophisticated support in valuation mechanisms.

Mr Livingston informed the audience about a new initiative by Secretary Kerry for the creation of aggregated demand signals for breakthrough innovative technologies in key sectors, such as steel, cement, trucking, shipping, aviation, direct capture to create contingent demand signals. Those demand signals will bring in the financial sector to help the private sector to finance those kinds of projects lowering the cost of capital for those innovative technologies.

SPEAKERS

Constantinos Papalucas, Energy Expert, Coordinator of the National Hydrogen Committee

George Kasapidis, Regional Governor of Western Macedonia, Hellenic Republic

Matteo Mazzoni, Head of Market Strategy, Snam, main Shareholder of Senfluga

Gulmira Rzayeva, Research Associate, Oxford Institute for Energy Studies; Founder and Managing Director, Eurasia Analytics

Dimitrios Kardomateas, Representative of the Chairman of the JTDP Steering Committee

MODERATOR

Konstantinos Sfetsioris, Energy Specialist; Member of the National Hydrogen Energy Committee

Constantinos Papalucas shared the latest updates on hydrogen in Greece. He has presented the first five IPCEI projects which are promoted and embraced by the Greek government in the first stage, which are focused on hydrogen technology, the key components and on decarbonisation through hydrogen. Green HiPo and White Dragon projects will be located in western Macedonia and H2CAT tanks will produce innovative H2 tanks. Blue Med and H2CEM are focused on decarbonising the industry sector. These proposals are from different sectors of the hydrogen value chain and they will be aligned with the national hydrogen strategy.

The national strategy, which will be released for public consultation in late 2021 explores the adaptation of various hydrogen systems and technologies in a technology-agnostic approach, carbon neutrality scenarios from 2030 until 2050, the gradual development of a competitive hydrogen market that touches the upstream, midstream and downstream sector, a special roadmap with targeted flagship demonstration projects that will serve as a signal provider for investors and will provide added value and jobs creation to local economies, the development of the necessary regulatory and legal framework, an innovation-enabling scheme to incubate and accelerate hydrogen start-ups and spinoffs, and a roadmap with quantified targets and policy measures.

In concluding his speech, Mr Papalucas pointed out that Greece should understand its potential as a producer, as an importer, as a transit country, as a pioneer in hydrogen islands and ports and as technology incubators of, the so-called Swiss army knife of the energy transition, hydrogen.

George Kasapidis began his speech by highlighting the current high coal, natural gas, and CO2 prices and extremely low renewable energy production. He mentioned that the role of natural gas as a transition fuel needs to be discussed further and the transition to clean energy is necessary.

The implementation of a multifactor strategy in which green hydrogen participation has a significant role is crucial. In this context, the exploitation of hydrogen is a significant challenge for the country's energy policy. The central government can encourage acceleration of the related hydrogen energy investments by setting up national strategies, regulations, standardisation, and applying appropriate incentives. The integration of hydrogen technologies in the regional production system must be considered and designed within the frame of a wider value chain interacting with other local economy sectors enhancing regional and transnational cooperation and good practices. Mr Kasapidis pointed out that the production and the supply of hydrogen, its exploitation in energy production, as well as the benefits in the local economy are elements of the value chain that must be formed to maximise the benefits of hydrogen activities in western Macedonia.

He presented the White Dragon project, supported by the western Macedonia region, and its objectives to decarbonise the energy sector, implementing large scale renewable electricity to produce green hydrogen by electrolysis and use directly at an initial stage to support district heating. Moreover, a main goal of the White Dragon project is the development of an integrated hydrogen industrial research centre and the development of innovation, which will be created in the region, aiming at reskilling, and upskilling existing human resources.

Matteo Mazzoni emphasised the key role of hydrogen in the future energy system. Hydrogen is becoming competitive across all different sectors and the current energy prices have to speed up the transition. Snam is committed to pushing the cost of hydrogen down to USD 2 per kilo by 2027.

Hydrogen is crucial to Europe's transformation into a climate-neutral continent by mid-century. In terms of the Greek outlook, gas demand in Greece is expected to remain stable over time with the natural gas phase-out accelerating from 2040 with the uptake of biomethane by 2025. Volumes of hydrogen appear from 2035 to decarbonise final consumption from 2040 when the hydrogen backbone connection to the rest of Europe is in place. Greece is expected to start exporting hydrogen to Central Europe.

Mr Mazzoni pointed out that there is a potential for a 39 700 km hydrogen pipeline infrastructure in 21 countries by 2040, almost 70% of which is based on repurposed existing natural gas pipelines at an average cost of EUR 0.11 – 0.21 per kg of hydrogen. The Greek hydrogen network vision foresees two main industrial clusters in Athens and Thessaloniki and a potential hydrogen cluster in western Macedonia, hydrogen storage in the form of an aquifer near the island of Thasos and hydrogen transport through TAP or via South-East Europe.

The energy market is increasing integration between molecules and electrons. There is a need to couple different sectors and a couple of different fuels to increase flexibility and diversify all the various sources and multipurpose uses. This will lead to increased system resilience and adaptability to fast-evolving market conditions, overcoming physical system bottlenecks and allowing integration of intermittent renewable energy sources.

Gulmira Rzayeva analysed the future hydrogen production in Turkey, which will be produced mainly from domestic energy sources, namely lignite, hydro, wind, solar, and geothermal. Turkey's energy policy is driven by the steep increase in energy, the need for increased energy security, and the overall financial burdens of the Turkish economy.

Focusing on the different options for hydrogen production, it seems that blue hydrogen is irrelevant due to the abundance of domestic gas resources, the need to decrease gas consumption, and the lack of CCS infrastructure.

It seems that the most commercially viable type of hydrogen production for Turkey is green hydrogen. Renewable energy production has been doubled during the last decade and support scheme mechanisms are in force, making green hydrogen a viable option. Black hydrogen is not financially viable and is not in line with the country's policy. Yellow hydrogen is attractive as a feedstock because it operates at a higher capacity factor than renewables. On the contrary, there is no excess nuclear power to be produced in Turkey, at least in the first few years.

Ms Rzayeva concluded her speech by pointing out that the national hydrogen strategy needs to include incentives and regulations to stimulate local hydrogen production and foster current hydrogen users and refineries to switch to low carbon hydrogen. Additionally, Turkey must become an exporter of green hydrogen by repurposing existing natural gas interconnections with Greece and Bulgaria.

Dimitrios Kardomateas highlighted the role of hydrogen as a main pillar of the energy transition, as the chemical storage of energy is crucial for this transition. As he refers, hydrogen types, except grey, brown, and black hydrogen which emit CO2 in the atmosphere, all other types of hydrogen are facing certain challenges in terms of total energy balance and production cost, and research and development is focused on these challenges.

Hydrogen coalition, which is an important international organisation, estimates that in the future the cost of production of green hydrogen will be reduced by half. In addition to costs, there is also research and development in transportation, storage, and utilisation of hydrogen, as well as in the development of safety standards and protocols. Mr Kardomateas emphasises the need for subsidies in hydrogen production since it is not yet a mature technology.

In concluding his speech, he pointed out that hydrogen production in the delignitised areas of western Macedonia is suitable due to the proximity of vast renewable energy, the proximity of natural gas pipelines, the very generous support schemes in these regions, and the experienced personnel.

SPEAKERS

René Bautz, Chairman, Global Gas Centre; CEO, Gaznat S.A.

Symeon Kassianides, Founder, Chairman and CEO, Hyperion Systems Engineering Group; Chairman, Natural Gas Public Company of Cyprus

Amir Foster, Executive Director, Association of Oil and Gas Exploration Industries in Israel

Thierry Bros, Vice President Research, Tellurian

Panayiotis Mitrou, Global Gas Segment Manager, Marine & Offshore, Lloyd's Register

MODERATOR

Naji Abi-Aad, Advisor, Global Gas Centre; Senior Consultant Gas Centre

René Bautz demonstrated the effect of the pandemic during the year 2020 in the gas sector, which faced a major consumption decrease. Global demand for natural gas fell by 1.8% in 2020, representing a volume loss of 72 billion cubic metres. The decline, however, was significant during the first wave of the pandemic with the first lockdowns leading to a 5% drop in gas demand. LNG was the most resilient with an increase of 0.4%.

In 2021, the high price increase in the markets represents a new challenge for stabilising this situation. The increase is especially important in the Asian market and European market. European gas storage facilities are not full and in September, only 73% of the seasonal storage volumes were stored. In case of a cold winter season, issues in supply security will occur.

Symeon Kassianides presented the current market of Cyprus and the natural gas market potential. Cyprus is an energy isolated market with a high dependency on liquid fuels for power generation and a currently increasing penetration of renewable energy. As regards natural gas, three main development pillars are being recognised: the development of the LNG import terminal project, the security of the necessary LNG supply quantities for domestic demand, and the development of the pipeline network to connect all potential NG consumers.

The LNG import terminal project includes the acquisition of FSRY, the construction of jetties, pipelines, and shore-side infrastructure, having EUR 374 million of available funding from CEF, EIB, EBRD, and EAC. Mr Kassianides also described the DEFA's upcoming activities, regarding the LNG supply procurement process, the open season process, the NG pipeline Network development, and the other NG Consuming markets. This project enhances regional cooperation, ends energy isolation, diversifies energy sources, strengthens energy security, and drives major environmental positive impact and technological growth.

Cyprus could play a key role in the eastern Mediterranean area, where regional oil and gas exploration, appraisal, and exploitation activities are ongoing. Cyprus could benefit by monetising reserves, acting as a service base and centre for the eastern Mediterranean, as a power hub through interconnections, an LNG bunkering hub, a regional centre for eastern Mediterranean health and safety, a centre for skills development for the energy market and petrochemicals production.

Amir Foster provided a snapshot of Israel's natural gas market developments. Israel is on the way to a transition from coal to natural gas and renewables and in 2020 became an energy exporter for the first time. In 2022, with the completion of the Karish-Tanin project, Israel's energy export will become the main growth engine. The goal for 2025 will be from two energy sources only - natural gas, and renewables. By 2030, the energy mix will comprise 70% NG and 30% renewables.

Nowadays natural gas is dominant in the energy mix, accounting for 67% of power generation in 2020. The use of natural gas led to a dramatic drop in pollutant emissions. SOx emissions fell by 82% while NOx emissions dropped by 62%.

CO2 emission reduction is one of the steepest among OECD countries, representing a 21% reduction in total. Discontinued use of coal will result in annual emission reductions of 10 MT, which is equivalent to the CO2 emissions of two thirds of the Israeli transportation sector. The transition from coal to NG resulted in an 80% reduction of CO2 emissions across industries in 2018-2019.

In concluding his presentation, Mr Foster analysed the export options for Israel's gas, addressing the region's immediate energy needs and pointed out that, although he was skeptical of the Eastern Mediterranean pipeline, this pipeline could be a viable solution in case of high energy prices.

Thierry Bros highlighted the three necessary elements for energy transition: competency in the technologies used, coherency for the implementation of the projects, and constancy of the supporting policies. Energy prices have been increased due to false predictions of future supply and demand from policymakers all over the world.

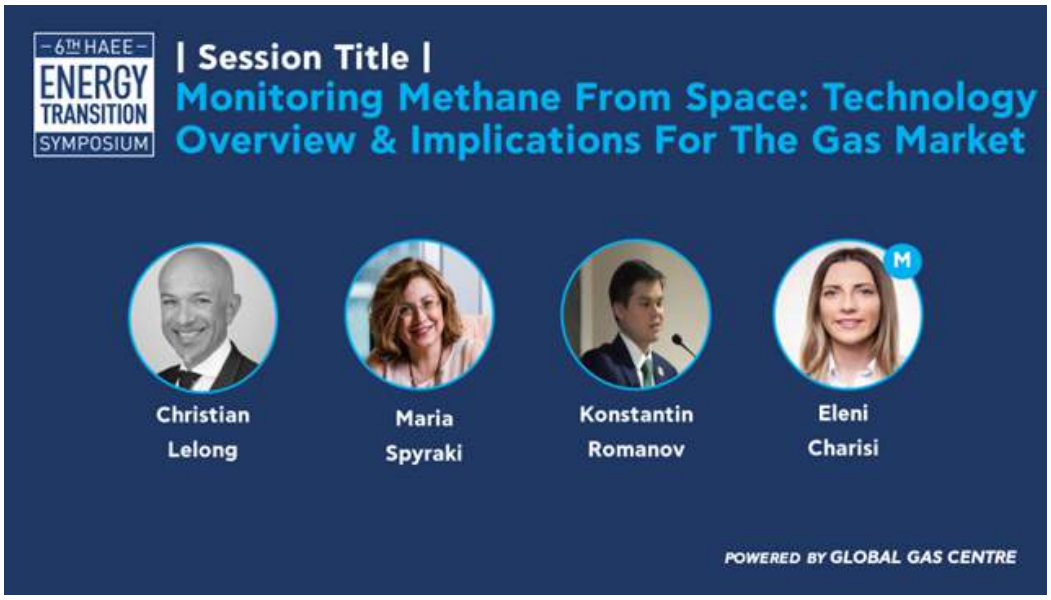
Mr Bros emphasised the outcome of the energy price crisis, which is the switch from coal to gas. There is a need for more gas to power the economy, which leads to higher gas production. It is time to move from dogma to pragmatism and try to find technologies that work.

CO2 reduction is the most crucial indicator to focus on to combat climate change and we can achieve this only with lower bills for citizens and an increase in security of supply. The net-zero plan for 2050, without a clear path towards this objective, cannot be not successful.

Panayiotis Mitrou underlined the key elements related to a sustainable pathway for natural gas and the importance of what is going to become the single most important attribute of gas: its carbon footprint. Buyers and end-users due to ESG are shifting towards cleaner forms of energy and recently more LNG contracts are being established. LNG is not always the same in terms of carbon footprint and there is a need to greenify the liquefaction process and to be consistent regarding monitoring, reporting, and verification of all the stages upstream, midstream, downstream. In the future LNG will be able to further greenify using net-zero blends or carbon capture storage, which is becoming a very dominant trend.

As regards methane emissions, there is a need to stop critics making fuzzy and vague accusations, since there are technologies to validate, double validate and triple validate the methane slip. What we need is to act and start applying measures that will gradually improve that footprint and address the methane emissions factor, which is critical to the survival of the industry.

EEXI and CII requirements pose a direct threat to more than 400 ships or almost 60% of the fleet. As a Norwegian study indicated, if all these ships are put out of service or slow down, there is a direct threat to the switch from coal to gas since they carry the transition fuel, natural gas. There is, however, optimism that these factors can also be tackled with technology, but there is a need to expedite this technology development and update. Therefore, the answer to the problem is not to throw away our assets and build new ones, but to greenify existing assets and supply chains.



SPEAKERS

Christian Lelong, Director of Natural Resources, Kayrros

Maria Spyraki, Member of the European Parliament, Nea Dimokratia Party

Konstantin Romanov, Head of Division, Gazprom

MODERATOR

Eleni Charisi, Natural Gas Market Reporter, Argus Media

Christian Lelong opened his presentation with introductory remarks about satellite monitoring and the institutional collaborations of Kayrros. Mr Lelong supported that according to Kayrros experience, observed methane intensity is 10 times higher than that reported from the relevant enterprises, while the IEA measures methane intensity for the oil & gas industry at around 1.2 kg/BOE. Satellite monitoring can be used to track methane emissions from coal mines. This technology can use low resolution to detect methane downwind from pipelines and high resolution to locate the exact spot of emission. Based on the results, methane emissions were observed to be much higher than expected. Such outcomes lead methane plumes to be discussed in the public agenda. At the same time, satellite monitoring is improving continuously. While critical improvements, satellite observations can work with higher potential by integrating various sensors such as in aeroplanes, drones, or even in-ground that could deliver higher resolutions. The implications for the gas industry include transparency, reporting, responsibly produced gas & LNG, identification, and elimination of methane hotspots and lastly, utilisation of various sensors that could contribute to the mitigation of the effect. In parallel with satellite monitoring, geospatial data are of growing importance to financial institutions especially considering ESG indicators.

Maria Spyraki pinpointed that the report on methane reductions composed by the EU is a major step to efficiently face this challenge. It is a good sign that the European Parliament is prepared to compose adequate legislative proposals for the reduction of methane emissions.

Konstantin Romanov began his talk by sharing some outcomes of the Kayrros analysis that helped Gazprom identify methane leakages. Gazprom adopted a methodology capable of quantifying methane hotspots in production, transmission, and UGS levels. Gazprom has fully integrated in-ground detection sensors such as hand-held devices and laser devices that can spot any leakages with high efficiency. Additionally, technical specifications are introduced to measuring and calculating methane leaks. Gazprom contributed with proposals to the EU methane strategy.

SPEAKERS

Mamadou-Abou Sarr, President & Chief Executive Officer at V-Square Quantitative Management
Antonis Mountouris, Group HSE & Sustainable Development Manager, HEL.PE.
Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

In discussion with:

Faidra Mavrogiorgi, Journalist and Owner ESG stories

Mamadou-Abou Sarr delivered more detailed insights on the ESG market and responsible investing. Mr Sarr mentioned that around USD 35 trillion of assets integrate ESG indicators in one way or another, while around 36% of the money that is professionally managed worldwide are integrating these indicators. Mr Sarr also noticed the phenomenon of greenwashing according to which managers state that they integrate ESG indicators but without actually changing corporate operations. Mr Sarr pinpointed the important correlation between all ESG components towards a synergetic equilibrium.

Antonis Mountouris presented the operations of HEL.PE. with a focus on measures that the company has undertaken to incorporate ESG factors concerning suppliers, production level, and society. Mr Mountouris stressed the ambition to evaluate sustainability strategy through the integration of ESG indicators. High integration of ESG

could lead to synergies with capital accessibility, risk management, stakeholder relationships, corporate reputation, and branding as well as profitability and growth. HEL.PE. created an ESG framework with five key components: setting comprehensive environmental targets, alignment of business strategy and capital with energy transition and sustainability, setting appropriate corporate structure, updating corporate governance in line with the legislative framework and best practices, initiation of new corporate identity. Mr Mountouris shared the remarkable performance of HEL.PE. on various ESG indicators as well as ambitious strategic projects in the fields of RES. In conclusion, he shared that HEL.PE. reporting on sustainability is in line with established sustainability reporting frameworks such as GRI, UN Global Impact, and others.

Kostas Andriosopoulos commenced his remarks by mentioning the new environment in terms of investments and the renewables sector. Concerning the importance of ESG indicators, companies may prefer to lower the returns to comply with ESG factors. Based on the millions of assets that integrate ESG, it is easy to observe the growing importance of the topic. From now on, environmental, social, and governance indicators are a field of implementation for many companies.

DAY 4, Friday, October 1, 2021

PROCEEDINGS

KEYNOTE SPEAKERS

Kostas Ach. Karamanlis, Minister of Infrastructure and Transport, Hellenic Republic
Matthew Lodge, UK Ambassador to the Hellenic Republic

In discussion with:

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

Kostas Karamanlis stated that the Ministry of Infrastructure and Transport is prioritising projects with a significant environmental footprint and projects related to the propulsion of greener transportation. Circular economy and sustainable development are the core of the Ministry's planning, with a strategic plan of EUR 30 billion dedicated to infrastructure projects all over the country. Mr Karamanlis stressed that the Ministry supports a switch from road transport to railways and investments in rail networks -infrastructure, superstructure systems, electrification, and telecommand. Tenders of EUR 400 million have already been launched, mostly for the modernisation of the system, while in the next few weeks the government will announce the biggest tender for railway projects of approximately EUR 3.3 billion, using a method of competitive dialogue. The Minister also referred to e-mobility, underlying the sole decision for zero-emission buses for urban public transport after 2023. The Government has prepared the first tender for the renewal of the bus fleet in Athens and Thessaloniki, including the purchase of 350 electric buses, 1 020 hybrid buses and 300 CNG buses. Additionally, the Minister pointed out that Thessaloniki's contemporary underground railway system remains a priority and announced the construction of Metro Line 4 in Athens. Lastly, Mr. Karamanlis accentuated the significant progress of the country's charging network, as he mentioned, there are charging points (CPs) every 100 km. The ambitious goal of the Government is to reach 25 000 charging points by

2030 through a comprehensive policy and a strategy that sets electrification of the transport sector as a hard law priority for Greece.

In his keynote speech His Excellency, **Mr Matthew Lodge**, commenced by pointing out the UK and the EU are still making common calls and are together committed to a net-zero future, while stressing the UK is among the first major economies that have legislated for net-zero emissions by 2050. His Excellency pointed out that from the British experience, the drive towards net-zero emissions has a positive impact on economic growth. Over the last 30 years the UK economy has grown by 78% as the country managed to cut emissions by 44%. To this end, Johnson's administration announced a plan for a green industrial revolution, mobilising GBP 12 billion of government investments in clean energy, transport, and innovative technologies. For the decarbonisation of the transport sector, the Energy Networks Association and Ofgem accelerated GBP 300 million of strategic investments to free up capacity and electricity networks, used to support EVs across the whole country. The UK strategic planning includes support packages for mass production of EVs, V2G schemes, freight trials to pioneer hydrogen and other zero emission heavy goods vehicles, public transport, railway modernisation, as well as aviation and shipping in a systematic effort by the country to decarbonise its whole supply chain and, ultimately, the domestic economy. His Excellency, Mr Lodge, concluded by highlighting the contribution of the UK to European businesses by providing rich opportunities for investment and scope to develop WELL building expertise to support accelerating transition across Europe.

SPEAKERS

Kyriakos Kofinas, General Director of e-mobility, PPC

Elias Petris, Strategy and Business Development Manager, NRG

Vasilis Georgiou, Managing Director, Protasis

Panagiotis Ekaterinidis, Marketing Manager, Citroen, DS Automobiles

MODERATOR

Thanos Zarogiannis, Electric Vehicles Charging Specialist, Advisor on Electromobility

In his opening speech, **Kyriakos Kofinas** stated that the main parameter for e-mobility growth is the expansion of the public charging network. According to his presentation, a tremendous increase of publicly accessible infrastructure was noticed this last eight months. Between December 2020 and September 2021, the number of EVs in Greece doubled while the number of charging points tripled, following the European momentum for a fast and sustainable expansion of electromobility. Mr Kofinas highlighted that while developing a network of publicly accessible charging points, it is important to address the different needs of end-users and the different moments of usage – urban, rural, national roads, airports. Additionally, the General Director of PPC's e-mobility sector summarised the key challenges for a stakeholder who would like to leverage their activity on the publicly accessible CP network in Greece. As he mentioned, the first challenge is the lack of awareness between sector players on what e-mobility is. E-mobility is not only an educational journey that affects peoples' lives and technology, but is also about being continuously updated on the evolution of the sector. The second challenge is the lack of private parking spaces that can be utilised for the installation of CP, a parameter that slows down the rapid growth of e-mobility, while the third challenge is the lack of connection capacity in some installations, for which significant investments are required to enhance capacity and to increase RES infrastructure. Furthermore, the procedure of acquiring permits/licenses for public CP installations requires streamlining. Mr Kofinas also referred to the main charging segments that are expected to grow in the country in the coming years.

Firstly, he stated that the Greek public charging network will be more important when compared to other EU countries, because of the low number of households with parking spaces and the very small number of large enterprises that offer charging facilities to their employees. Moreover, charging at home and at the workplace will always be the key, but it will count for less than 60% in Greece, compared to more than 70% in the EU. Lastly, he believes that municipalities and local government will play a significant role in the development of public CP. Mr Kofinas mentioned that further communication and promotion of the benefits of the «Κινούμαι Ηλεκτρικά» [I travel electrically] programme, support to municipalities on how to progress with their EV charging plans and the development of a CP network with openness and lower barriers to entry are the necessary prerequisites for further acceleration of EV penetration.

Elias Petris began his speech by mentioning that e-mobility is at the heart of energy transition, at the heart of electrification of energy systems and digitalisation. For this reason, over the next decade, the EU is planning to invest EUR 1 trillion as part of the European Green Deal, triggering in that way almost 40 million EVs on the road and three million public EV charging points. The market is growing, and we expect to see an EBITDA of up to 5 billion € by 2030. Of this, 45% will occur from home and fleet charging, 29% from energy supply and the remaining amount will come from smart charging and charging on the go. In Greece, 4 000 EVs have already been sold, surpassing the goals of the NECP, while in August 2021 and compared to FY 2020, there was a 2-fold rise in plug-in-hybrid vehicle sales, and a 1.8-fold rise in battery electric vehicle sales. According to Mr Petris, for further development of the electromobility market in the country, CP in highways should be multiplied, cooperation for urban network expansion should occur, workplace charging should be prioritised, and systematic introduction of innovative services through the e-mobility platform must be implemented.

In his opening remark, **Vasilis Georgiou** stated that electromobility is a part of the energy transition process and one of the most attractive parts of electrification which today provides useful tools, but also creates many challenges for electrical networks, for utility companies and for the market in general. E-mobility is forming a new business environment and transforming the traditional production, transmission, and distribution system. According to Mr Georgiou, in the centre of this new environment is the modernisation of the electrical network, that faces specific challenges including but not limited to the need for solid legislation, the need for fast responding efficient systems to manage the networks, and the need to reinforce the system by enhancing interconnections and environmental protection. The Managing Director of Protasis stated that electrification can be a viable solution for a transition that the EU has envisioned making and includes new trends such as smart metering, green certificates, PPAs, smart energy management systems, proliferation of RES plants, energy storage and, at the top of the list, e-mobility. To conclude, Mr Georgiou pointed out the need for the fast implementation of projects and several investments - including the development of digital systems in the interconnected substations of submarine cables, digital systems for the integration of new RES plant into the grid, smart metering, and energy efficiency solutions to accomplish of the next step, while moving the energy transition forward.

Panagiotis Ekaterinidis pointed out that to achieve climate neutrality, a 90% reduction in transport emissions is needed by 2050, a fact which means that almost all cars in circulation need to be low or zero-emission, confirming the significant role of e-mobility in meeting the EU's climate objectives. Mr Ekaterinidis stated that the transition to electrification and more specifically the promotion of pure electric vehicles against ICE models plays an important role in reaching the ambitious target. Concerning the Greek reality, Mr Ekaterinidis stressed that hybrid electric non-chargeable cars comprise 22%, which is the highest mix compared to Europe, a fact that it is connected to the lower prices of these cars and their affordability to the public. The Marketing Manager of Citroen and DS Automobiles mentioned that, according to end-users, the price, the range, and the charging capacity are the main barriers to EV uptake. He also mentioned that EV sales are directly correlated to country GDP per capita, and that 70% of all EU charging points are concentrated in three countries in western Europe – the Netherlands, France and Germany. In his closing remark, Mr Ekaterinidis stated that the auto industry's investments in alternatively-powered vehicles are paying off, since in 2020 more than 1 out of 10 cars registered in the EU was electrically chargeable. However, this positive trend can only be sustained if governments intensify matching investments in infrastructure and continue with sustainable incentives.

SPEAKERS

Tasos Athanasopoulos, President and CEO, Enerdia S.A

Guillaume Dupret, Energy Market Director, Akuo Energy

Christos Georgopoulos, CEO, Inaccess

Vasilis Machias, Country Manager Greece, Axpo Solutions

Athanasios Cholevas, Head Global Market Solutions, Corporate Transaction Banking, National Bank of Greece

MODERATOR

Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

In his speech, **Tasos Athanasopoulos** stated that the Greek Energy system and framework is not friendly in terms of developing projects and dealing with authorities. However, despite some adverse situations, the Greek market has managed to attract significant investment opportunities. Concerning the maturity of the PPA concept Mr Athanasopoulos mentioned the lack of specific regulation and a solid legal framework to anticipate that which we should expect in the following years. Mr Athanasopoulos continued by mentioning that the Greek market is not ready to move away from the auctions scheme, since there is neither a mature legal framework nor solid proposals from financial institutes. Even the market capabilities are weak. However, the President and CEO of Enerdia S.A. stressed that there is a great investing appetite for renewables. According to him the goal is to revise our way of thinking about bankability and we need to use advanced analytical tools for our estimations, as he noted. We also have to change mentality from property investors to asset investors, he concluded.

Guillaume Dupret began his speech by correlating the role of PPAs with the initial – fundamental role of the Target Model in Europe. The Target Model was created to develop wholesale markets, integrated wholesale markets and to benefit from market coupling with the obligation to provide electricity prices that can bring visibility to all market

players–producers, end-users, traders, etc. When it comes to renewable producers, bankability is essential according to Energy Market Director of Akuo Energy and he highlighted the need to avoid the risk of increased cost as a result of the need for balancing. Mr Dupret also referred to storage assets, as a tool that helps enhance liquidity in the market, helping producers to sign a PPA with better prices. However, a capacity subsidy mechanism is needed for those assets to be viable.

Christos Georgopoulos referred to the importance of PPAs from the point of view of a Platform Vendor that operates in several countries. As he stated, Inaccess sees PPAs as an opportunity and a driving force to move to the next generation of renewable developments. The public subsidies achieved their initial goal and now the green PPAs or the private PPAs concept is the perfect means for switching gradually to the new era which opens the market to unlimited opportunities and players. A number of different players are participating in this new ecosystem: equity partners, debt providers, designers, etc. As Mr Georgopoulos stressed, private PPAs are the enabling factor for continuing renewable deployment in an unstoppable manner. According to his speech there is an immense appetite of PV owners-producers to become informed about the new financial tools.

Vasilis Machias mentioned that PPAs could provide societal benefits by accelerating the transition to a zero-carbon economy and reducing reliance on subsidies. From the producers' point of view, PPAs could offer long-term revenue predictability and enable project financing, while for the off-takers PPAs are able to reduce the buyer's carbon footprint and offer a hedge against market price volatility. Mr Machias stated that, according to RAE, the clearing prices in the CfD auctions are declining from 62.7 €/MWh in July 2019 to 37.6 €/MWh in May 2021, while in contrast commodity prices are soaring. The Country Manager of Axpo Solutions in Greece stated that the new market reform plan foresees the development of a RES-PPA platforms suitable for multi-seller/multi-buyer contracts, and further expects that there will be a transitory period, as players become accustomed to PPAs. Mr Machias concluded by stressing that PPAs can accelerate the transition to a zero-carbon economy, reduce reliance on subsidies, offer long-term revenue predictability, enable project financing, and offer a hedge against market price volatility.

According to **Athanasios Cholevas**, the way the energy market is organised and operates in our country has significantly changed this last ten years, under the content of the gradual harmonisation with European regulation. The aim of the EU and of the Greek energy market is to provide reliable prices with least possible impact on energy supply, business, households, through a liberalised electricity market. PPAs have developed thank to this liberalisation, as they give the opportunity to energy market participants to make bilateral agreements in order to buy or sell amounts of energy which will be generated on a predetermined tenure in a fixed time. According to Mr Cholevas, corporate PPAs are still immature, however, in the next years they are about to become more prominent, as the energy market and its participants is expected to face many challenges. He then listed the challenges in the sector starting from the transformation of schemes of renewable energy projects, imposing liberalisation and leaving behind guaranteed returns. Additionally, a significant volume of existing guaranteed price contracts is approaching and have already matured. Moreover, in many countries, including Greece, the abolition of state aid is already underway or being implemented, resulting in projects with full market participation, with insecure management of risk and returns. Consequently, the financing of renewable projects and their viability are being put in a new trajectory, tracing the challenge of volatile wholesale prices. At the same time, as Mr Cholevas stressed, many European companies and industries are increasingly considering a climate sustainable energy supply as part of their strategy, to make their business environmentally sustainable, setting ambitious carbon targets. This phenomenon leads to increasing demand for green energy to cover the respective needs. The Head of Global Market Solutions, Corporate Transaction Banking at the National Bank of Greece concluded his speech by stating that these challenges illustrate the necessity of corporate PPAs, as through them developers and industries which set green targets and industries with high consumption costs will need to have access to fixed energy prices. The Greek state also recognises the need for power PPAs, in a free energy market, and intends to establish a legal framework in order to facilitate the organised functioning of the market, leading to liquidity, facilitating the creation of financial products and hedging instruments.

SPEAKERS

Marcel Kramer, Energy and Infrastructure Consultant; President, Energy Delta Institute

Spyros Kiartzis, Manager, New Technologies and Alternative Energy Sources, HEL.PE.

Maher Chebbo, Chair, European ETIP Digital Energy Group and Digital Batteries Task Force

Gianfranco Scalabrini, Partner, 3H Partners, Professor of Energy Markets, Luiss Guido Carli

MODERATOR

Miguel Palacios, Academic Dean Executive Education, ESCP Europe Business School

Marcel Kramer commenced his speech by mentioning that energy supply has a number of crucial parameters in order to be functional on a large scale. It needs to be safe, continuous, widely available, reasonably convenient and affordable. He then focused on the affordability issue and talked about how high energy prices affect not only natural gas and power consumption but innovation itself. Mr Kramer stated that the realisation of the potential impacts of climate change has given rise to policy changes and a strong push towards new technologies, innovation, and "greening" schemes. Digitalisation and blockchain, for example, offer great opportunities for new efficiency. According to Mr Kramer, we are witnessing a boom of activity, from start-ups to major corporations, however, there are several obstacles to overcome to keep the pace of innovation: bottlenecks in power supply, technical and logistical issues concerning raw materials, geopolitical implications, and issues of scale. Concerning scale issues, Mr Kramer posed the question of whether we can move from essential industrially-oriented product to one that is used on a larger mass scale with prices that consumers are happy to embrace. The President of Energy Delta Institute further raised the issue of fragmentation of energy supply and demand management. The vast number of suppliers that exist due to the liberalisation of energy markets and the vast array of new end-users must cooperate in a way that avoids peak loads, while obstacles in policy and regulation have to be resolved for the untrammelled functioning of the energy markets.

According to **Spyros Kiartzis** social and political intent to address climate change is rising and ever-tightening regulatory requirements are needed to push decarbonisation. To this end, electricity demand is rapidly growing but RES dominate future investments within the sector.

Mr Kiartzis stressed that in this vast changing environment O&G majors and peers are systematically starting to commit to challenging de-carbonisation targets and adoption of energy convergence, while the capital markets are rewarding players with bold sustainability moves that can be measured by ESG factors. Mr Kiartzis referred to energy transition challenges, starting from the uncertainty of the regulatory framework that is not water-tight, the bottlenecks in engineering and technology that has yet to mature, the high investment risks and the industry's immaturity to deal with new financial tools like PPAs. The Manager of New Technologies and Alternative Energy Sources at HEL.PE mentioned that there are three pillars of action that would facilitate adaptation into the new reality towards sustainability and energy transition. Fleet electrification was proposed by Mr Kiartzis as a strategy for reducing air pollutant emissions and improving air quality in urban areas, while he also placed emphasis in new storage technologies and electric vehicles that could lead to a new system in which consumers can produce, use, and sell their electricity. Advanced biofuels and renewable fuels can be a viable alternative for road, rail, marine and air transportation while green hydrogen should gradually be used more and more in industry, transportation – through fuel cell vehicle - and thermal use. Lastly, Mr Kiartzis presented the Refining industry of the future as an energy hub, within an industrial cluster, enhancing industrial symbiosis, utilising sustainable fuels, and offering low-GHG products. According to his speech the implementation of a circular economy for an O&G corporation could be achieved through the development of EV charging infrastructure, sustainable feedstock adoption for our refining units and recycling of plastics in the refineries and petrochemical products.

Maher Chebbo commenced his speech by mentioning that the regulatory framework is in place in European countries but also in superpowers like China and drives corporate low-carbon initiatives. According to his predictions, the carbon tax will vary between around EUR 130 and EUR 150 per ton of CO2 in 2030 and around EUR 300 in 2050. He mentioned that the EU has been putting emphasis in energy transition investments, by providing EUR 1 trillion for Green Deal applications, between EUR 30 and EUR 35 billion for Climate and Energy initiatives and EUR 10 billion through the innovation fund for new and smart technologies. The importance of digitalisation has been illustrated

in the vast growth of smart grid investments that reached EUR 32 billion in 2020. Mr Chebbo also stated that European cities are turning towards green energy and energy saving through new technologies, such as AI, Machine Learning and Blockchain. Mr Chebbo placed emphasis on the term Digital Energy Transition, which consists of Decarbonisation, Digitisation, Decentralisation, Democratisation and Electrification. For the realisation of 4D + Electrification, Mr Chebbo referred to the goal of 60% installed RES capacity by 2026 and identified data integrity, cyber security, real time decision-making and autonomous optimisation as the main subcomponents of digitisation. He further stressed that end-users are radically becoming active actors in power systems as 'prosumers', in this way increasing grid complexity and intensifying the need to improve network capacity. Finally, Mr Chebbo highlighted the need to democratise access to energy, that could be achieved through the idea of a one-stop shop universal access platform in which all EU citizens could have access to energy suppliers and to energy services. He concluded by mentioning that amendments in regulation and policy, consortium – industry collaboration, and value generated from pilots to massive scale up with turnkey solutions are the key to an accelerated energy transition.

Gianfranco Scalabrini began his speech by mentioning that the world is experiencing a "new normality" based on innovation and new technologies, a trend that is not caused by COVID-19 but it has speeded up because of the pandemic. Energy companies are speeding up an open innovation model, which is based on three different pillars. The first pillar is integration and inclusiveness to target the right challenges. All the functions and the divisions of a corporation that contribute to innovation, are aligned with the objectives. The second pillar is openness to the outside environment to overcome traditional biases - known as the "not invented here syndrome", and the third pillar is the capability of involving internal resources to leverage the diffusion of all knowledge. Mr Scalabrini also explained in detail the "Idea Factories" that have been made by major companies. These companies have created innovation centres, collaborative groups organised to solve complex issues with creative problem-solving tools and the involvement of different and strongly positioned stakeholders. Typically, "Idea Factories" recruit professionals with different backgrounds to gain lateral thinking and spin the ideas from different angles. According to Mr Scalabrini, the objectives of "Idea Factories" align with the needs of energy companies, that have to use a five-point framework in order to face the "new normality": push creativity to the new normality, move from workplaces to innovation laboratories, promote cross-functional integration, leverage creative tools, and finally move from ideas to actionable projects and opportunities.

SPEAKERS

Panagiotis Papastamatiou, Director, ENTEKA; CEO, Hellenic Wind Energy Association
Konstantinos Tomaras, General Director, Spyropoulos S.A.

MODERATOR

Nikos Frydas, Principal, Energy Advisory, Grant Thornton S.A.

Panagiotis Papastamatiou started his speech by mentioning the significant competitive advantages of offshore wind power in Greece. Offshore wind can provide electricity without the disputes observed on several onshore wind projects. Additionally, offshore wind could support the local economy by providing a plethora of added-value services. Furthermore, there is a geopolitical relevance of this option, concerning the national point of view that lies in the exploitation of the Aegean Sea as a natural resource. Although the significant benefits of this technology are unquestionable, four notable challenges should be furtherly approached. Firstly, maritime planning is an important tool that benefits the stakeholders involved in offshore wind but currently is not yet developed at a sufficient level. The second challenge is about the electricity grid. Given the current legal context, there is a significant risk on grid availability after the completion of the environmental planning. The third challenge is about providing a framework that incorporates clarity and transparency at maximum levels initiating specific criteria and rules that govern the context. The fourth challenge is about providing strong commitments and visibility which will help investors and other stakeholders to participate in this market.

Mr. Tomaras stated in his opening speech that in 2021 the energy sector has slightly recovered the covid-19 effect. Despite the decrease, Greece is still meeting the EU target concerning renewable energy sources penetration, prioritizing solar and wind energy projects but also investments in battery storage. More specifically, the increasing

Mr. Tomaras stated in his opening speech that in 2021 the energy sector has slightly recovered the covid-19 effect. Despite the decrease, Greece is still meeting the EU target concerning renewable energy sources penetration, prioritizing solar and wind energy projects but also investments in battery storage. More specifically, the increasing trend of 2018 and 2019 for Photovoltaic installations in Greece, continued to rise at 15% in 20220, reaching 3.288MW of connected capacity by the end of the year, while installed capacity exceeded the projections reaching 3.742MW. According to Mr. Tomaras, it is worth mentioning that the connected capacity of 2020 resembles the levels of 2012, while the connected capacity of 2020 reaches the levels of 2011, proving the importance of Small-Scale RES in the Greek mainland and in islands as well. He concluded his statement by pointing out that the implementation of small scale renewable energy sources in Greek islands, together with storage- hybrid systems, together with the electronic application for up to 400kW HEDNO projects in saturated networks will contribute to further development of the share of renewables in Greece's energy mix.

SPEAKERS

Andrea Martinez, Deputy Managing Director, Sinloc

Avraam Kartalidis, Chemical Process and Energy Resources Institute, Centre for Research and Technology Hellas

Vasilis Roussakis, Deputy Mayor of Economic Growth, Municipality of Chalki

MODERATOR

George Moutzorogeorgos, Energy Specialist, Advisor to the Secretary General of Energy

Andrea Martinez stated that there are plenty of needs and barriers to promote energy transition in the islands, since there are issues of energy self-reliance, of reducing dependency on costly fossil fuel imports and greenhouse gas emissions, of reducing strain on public budgets, of adopting modern and innovative energy systems, of attracting modern finance and of implementing Island Sustainable Energy Action Plans. Concerning the opportunities, Mr Martinez mentioned that there are new ready technologies, tested projects and dedicated funds for innovative concepts in the insular areas. As Mr Martinez stated the main barriers concern project fragmentation, the low unitary cost of technologies, the lack of coordination among LAs & projects, the lack of knowledge on funding opportunities, the absence of technical, procedural, financial skills and competencies, the fact that existing best practices are often overlooked and the instability in governmental decision-making procedures. Finding the right capability to aggregate public financial instruments, private funding, grant schemes and technical assistance can be a viable solution to the issue of scale while moving towards energy transition. In his concluding remark, Mr Martinez stated that islands are ready to begin their path towards energy transition and highlighted local community, stakeholders and end-users' engagement for the successful implementation of the initiatives.

Avraam Kartalidis stated that innovative and state of the art technological solutions and ICT platforms are the main tools to address challenges and develop opportunities on islands towards their energy transition and decarbonisation. Islands are considered living labs for EU energy transition actions and CERTH plays a leading role in

energy transition projects. According to Mr Kartalidis, innovative technologies such as SOFC-MGT in hybrid energy systems (HESs) are promising options for non-interconnected islands and the best supplementary option for the rest. He also mentioned specific projects such as SMILE, IANOS and INSULAE that test well established energy carriers such as electricity, hydrogen, and biofuels, which are modernised with new technologies in management and storage, along with ICT technologies. Mr Kartalidis stressed that to implement and replicate innovative technologies for energy transition under these pilot projects, new tools and procedures, such as the INSULAE Investment Planning Tool, are needed. The representative of CERTH gave a special mention to the NESOI project which will fund the implementation of 10 Greek projects – Tilos, Nisyros, Malevizi, Minoas Pediadas, Naxos & Koufonisi, Kythnos, Diapontia Islands, Chios-Psara-Oinousses, Antiparos, Ikaria - with the technical assistance and support of CERTH. He concluded his speech by listing bureaucracy, the particularity of regional investment, social acceptance, lack of synergies and regulatory frameworks as the main challenges to achieve decarbonisation and smartification of islands.

In his opening remark, Mr **Vasilis Roussakis** mentioned that the present clean energy transition agenda of Chalki is the strategic plan for the decarbonisation of the island, while the greening of the island started with the support of the Ministry of Environment and Energy and the Secretariat of the European Commission for the clean energy for EU islands, and the involvement of private sector initiatives. The Deputy Mayor of Economic Growth, Municipality of Chalki, stressed that the participatory process of the clean energy transition plan of the island, involves the municipality of Chalki, its residents, its business owners, the collective bodies, and different associations - Sports and Cultural Association. According to Mr Roussakis, the Vision of the Island of Chalki is to become energy autonomous, utilising Renewable Sources of Energy through a mild sustainable "green" growth. He presented the whole initiative that includes the installation of a 1 MW Photovoltaic Park, the installation and operation of a wave energy park for the production of electricity, the installation and operation of a smart electrical network, the replacement of all compatible cars and mopeds on the island of Chalki with electric ones, the creation of charging stations for electric vehicles through RES, and the installation of infrastructure for charging stations for electric vehicles, the energy upgrade of all energy-intensive public buildings, and the energy upgrade and automation of electric lighting systems of public areas. As he added, the participation of the local energy community is especially important to the whole endeavour.

SPEAKERS

Olga Khakova, Deputy Director for Flagship Convenings and Global Engagement, Global Energy Center, Atlantic Council

Nicolò Sartori, Senior Researcher, Enel Foundation

Theodoros Tsakiris, Associate Professor of Geopolitics and Energy Policy, University of Nicosia Business School

MODERATOR

Max Pyziur, Director - Downstream, Transportation Fuels, & Natural Gas Projects Energy Policy Research Foundation, Inc. (EPRINC)

Olga Khakova began her statement by correlating geopolitics with pipeline politics and natural gas, as well as with the clean energy supply chain and the relevant multilateral cooperation, to ensure that clean energy developments are not constrained. Geopolitics and energy efficiency could also be seen as tied together. Mrs Khakova mentioned that addressing the conflicts in a region is important for the optimisation of natural gas potential that a region has to offer, and she also highlighted that the reporting of carbon intensity of natural gas and LNG emissions must be fair and transparent. She concluded her speech by referring to the role of governments and authorities in initiating the energy transition.

Nicolò Sartori brought to the discussion table, alongside energy transition, important and interconnected topics such as individual wellbeing, energy poverties and growing inequalities. He mentioned that in Europe approximately 80 million people cannot afford to cover their energy needs in terms of heating, a number that is expected to be amplified due to the pandemic and the constrained resources. Mr Sartori also referred to the need for investment in infrastructure and grids in the wider Mediterranean region, as another critical issue. According to him smart schemes and battery storage are becoming fundamental, and they are directly associated with renewable energy capacity. As he stressed, there is room for expanding the utilisation of RES associated with efficient smart grids, with storage capacities and with management of demand through efficiency, without adding new gas capacity. He concluded by mentioning that we must look at natural gas in a securitized-geopolitical approach, to accelerate the transition in SE Europe.

Theodoros Tsakiris mentioned that the discussion about energy security in SE Europe and the geopolitical implications is almost exclusively monopolised by natural gas. However, nowadays the definition and the impact of climate change is going to change the concept of energy security in a dramatic way. According to Mr Tsakiris, the two primary strategic priorities of the greening of the global economy is to decarbonise the electricity mix and then expand the utilisation of green electricity throughout different demand sectors across the new energy economy, including transportation, CCS and CCUS technologies. The region is characterised by steep change in terms of climate conditions. We have lived through extreme weather conditions, combined with mega-fires which drove the point that climate conditions have shifted, at the same time testing the security of electricity systems to the limit. Mr Tsakiris further stated that as we bring to the system intermittent-variable renewable electricity, in the absence of strategic grid scale storage – battery options and the limited impact that we can get from hydro storage, the only way that we can balance assistance and provide flexibility and adequacy for the electricity system we need a baseload technology, that of natural gas. Gas is the critical and the most important bridge fuel for making the transition to a dominant mix of renewables safe, secure and economically accessible to society.

KEYNOTE SPEAKER

James Smith, President, International Association for Energy Economics (IAEE); Editor, The Energy Journal; Professor Emeritus, Southern Methodist University

In discussion with:

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

James Smith began his speech by highlighting the importance of energy and environment for Greece's geopolitical role in the European and Mediterranean region. He then referred to the need to address climate change as a personal matter, rather than a general and impersonal preposition. The idea of the personal fight against climate change facilitates the distinction between the efforts to mitigate climate change by reducing emissions and the efforts to adapt to that part of climate change we can prevent. As he stated, the attempt to reduce emissions and mitigate climate change mainly depends on innovation and technological initiatives, but also on peoples' mentality against the emergency of environmental protection. Thus, to demonstrate the feasibility of achieving net zero we must focus not only on technological developments but also on the behavioural obstacles that threaten its success. Mr Smith also stated that adaptation to climate change involves actions that are mostly local, since individuals, communities, states and even nations are willing to invest in programmes that protect the welfare of their citizens. He concluded by mentioning that predictions and forecasts that failed to account for the behavioural human factor, present a higher margin of error.

Speakers

Keynote Speakers

Adonis Georgiadis

Adonis Georgiadis was born on November 6th, 1972, in Athens. He graduated from the Faculty of History & Archaeology of the School of Philosophy of the National & Kapodistrian University of Athens. In 1993, he took over the management of publications 'GEORGIADIS LIBRARY OF GREEK'. In 1994, he founded the Liberal Studies Center "GREEK EDUCATION". Elected MP in Athens B region in the elections of 2007 and 2009 with the LAOS political party. In February 2012, he joined the Nea Demokratia political party, having resigned from the parliamentary office. Elected with Nea Demokratia in Athens B in the national elections of 2012 and 2015. In 2011, he was Vice Minister of Shipping in the Government of Lucas Papademos and in 2013 he was appointed Minister of Health in the Government of Antonis Samaras. On January 18th, 2016, he was appointed one of the two Vice Presidents of the Nea Demokratia by decision of Kyriakos Mitsotakis, the President of Nea Demokratia. On July 9th, Adonis Georgiadis was appointed as Minister of Develpopment and Investments after the 2019 greek elections. He is married to Eugenia Manolidou and they have two children, Perseus and Alcaeus.

Kostas Karamanlis

Kostas Karamanlis was born in Athens in 1974. He has studied History and Economics at Hamilton College and earned an MA in Law and Diplomacy from the Fletcher School of Tufts University. In January 2015 Kostas Karamanalis was elected to parliament with the party of New Democracy, and was re elected in September 2015 and in July 2019. From January 2016 since June 2019 he was the shadow minister of the New Democracy Party for Infrastructure and Transport. After the 2019 election, Mr Karamanlis was appointed Minister for Infrastructure and Transport in the Cabinet of Kyriakos Mitsotakis. Before getting into politics, he worked from 2002 until 2004 in London for the UBS Warburg Bank. In 2004 he returned to Greece and started working as a chief executive at Mantinia Shipping Company. He is also a member of the Board of Directors of the "Konstantinos G. Karamanlis" Foundation and of the Board of Overseers of the Fletcher School.

Kostas Skrekas

Konstantinos Skrekas comes from Megarhi, Trikala. He is married to Eirini Karagouni and has two daughters, Alexandra and Sophia. He holds a Degree in Civil Engineering from the Aristotle University of Thessaloniki (Civil Engineering Department, Faculty of Technology), and an M.Sc. in Construction Management from the University of Birmingham, UK. After completing his studies, he worked in the Fast Moving Consumer Goods sector in managerial positions. He is the co-founder of a company operating in the FMCG sector and held the posisition of CEO for 15 years. In the general election of 6 May 2012 he was elected Member of the Greek Parliament (MP) for the Constituency of Trikala with the New Democracy Party. He was re-elected on 17th June of the same year. On the 25th of January 2015 he was elected Member of the Greek Parliament (MP), receiving the largest number of electoral votes among candidates from all political parties, in the Constituency of Trikala. He was re-elected in the elections on 20th September of the same year. In the general elections on 7th July 2019 he was elected Member of the Greek Parliament for the Constituency of Trikala. During his terms of office in the Hellenic Parliament he has been a member of the Standing Committee on Economic Affairs, the Standing Committee on Production and Trade, the Special Permanent Committee on Research and Technology and the Special Permanent Committee on Environmental Protection. He was also Shadow Minister for the Environment and Energy Sector for the New Democracy Party from January 2016 – June 2019. He was appointed Minister of Development and Competitiveness from October 2014 until February 2015. On 9th July 2019 he was appointed Deputy Minister of Rural Development and Food, being specifically responsible for the Common Agriculture Policy (CAP). On 5th January 2021 he was appointed Minister of the Environment and Energy. He speaks English and French.

Konstantinos Aravossis

Prof. Konstantinos Aravossis is Secretary General of Natural Environment & Water at the Greek Ministry of Environment and Energy. He is a Mechanical Engineer (Technical University of Aachen -Germany) with an M.Sc. in Management Science from Imperial College - University of London. He has further been awarded a PhD by the National Technical University of Athens, focusing on Operations Research. He is Professor of "Planning, Management and Assessment of Technological and Environmental Investments at the NTUA (National Technical University of Athens), Professor at the ATHENS MBA (NTUA - Athens University of Economics) since 1997. He is the Coordinator of the "Environmental Economics and Sustainable Development Research Group" of the Sector of Industrial Management and Operations Research of the Mechanical Engineering School. He was the Environmental Advisor to the President of the Greek New Democracy political party and current Prime Minister. He was President of the Greek Branch of the Waste to Energy Research and Technology Council (www.wtert.gr) coordinated by Columbia University and associate researcher of the Earth Engineering Center -Columbia University as well as visiting Professor at Imperial College-London. He was President of the Coordinating Committee of the Institute of Production and Operations Management / Hellenic Management Association. He has been an advisor of the deputy Minister of Culture for the Olympic Games Constructions and their Post-Olympic utilization, President of the Greek Association of Environmental Protection Companies, President of the Hellenic Solid Waste Management Association (HSWMA) (now Hon. President), President of the Ordinary Environmental Committee of the Technical Chamber of Greece and member of Evaluation Committees for Investment and Energy Projects of the Ministry of Development. Furthermore, he has been member of the Board of the Organisation of Labour Residencies (OEK).and General Manager of Environmental Companies. He has organised 11 Int. Conferences and has over 100 Publications / 30 research projects.

Alexandra Sdoukou

Alexandra Sdoukou is a lawyer, permanent employee at the Management Organisation Unit of Development Programmes (MOU S.A.) under the Ministry of Economy and Development. Since 2004, she is working as legal advisor in the public administration in various positions at the Ministries of Economy, Development and Environment, Energy & Climate Change. She has been specialised as energy policymaker, working with all Energy Ministers from 2007 to 2015. From 2012 to 2015, she was Head of Cabinet at the Minister of Environment, Energy & Climate Change, competent to develop policy formulation, implementation and monitoring on a wide range of energy and environmental projects. From October 2017, she was Advisor to the President of Nea Dimokratia on energy and natural resources. Alexandra holds a Bachelor of Law degree from Democritus University of Thrace, a Master's Degree LLM in European Commercial Law from the University of Bristol U.K., and a M.Sc. in International & Economic studies from the Athens University of Economics & Business.

Gerassimos Thomas

Gerassimos Thomas is Director-General in the Directorate General for Taxation and Customs Union at the European Commission. Prior to his current assignment, G. Thomas had professional assignments as: Deputy Minister for Environment and Energy in Greece (2019 2020); Deputy Director-General in the Directorate General for Energy and Chairman of the Steering Board of the European Fund for Strategic Investments (EFSI) (2014 2019); Director Finance at DG ECFIN (2009 2014); member of the EIB and EIF Board of Directors (2009-2017); Head of cabinet of Joaquin Almunia, Commissioner for Economic and Monetary Affairs (2005-2009); Deputy Spokesman for Commission President Romano Prodi; Spokesman for economic and monetary affairs for Commissioner Pedro Solbes (2000-2004). Prior to 2000 held various positions in the European Commission, the European Investment Fund and in investment banking in London.

Georgios Arvanitidis

MP for Thessaloniki (B' zone), Responsible for the Environment, Energy and Climate Change sector, KINAL, George Arvanitidis hails from Thessaloniki, Makedonia. He is married to Kalliopi Arabatzis and father of two daughters, Maria and Stavroula. He holds a Diploma Business administration at Aristotle University of Thessaloniki. After completing his studies, he worked in the private sector as Manager. He elected Mayor of Sindos Municipality (1995-1998) and Mayor of Echedoros Municipality (2003-2007 and 2007-2009). In 4 October 2009 he was elected Member of the Greek Parliament (MP) for the Constituency of Thessaloniki (B' zone) with the Panhellenic Socialist Movement, PASOK Party. He was re-elected in the parliamentary elections of 25th of January 2015, of 20 September 2015 and of 7 July 2019 with the KINAL (Kinima Allagis) Party. During his incumbency in the Hellenic Parliament he has been member of the Standing Committee on Public Administration, Public Order and Justice, the Special Permanent Committee of the Regions, the Standing Committee on Economic Affairs, the Special Permanent Committee on Environmental Protection, the Subcommittee on Water Resources, the Special Permanent Committee on monitoring the decisions of the European Court of Human Rights, the Greece – Georgia Friendship Group, the Greece – USA FriendshipGroup, the Greece – Russia Friendship Group, the Greece – China Friendship Group, the Greece – Azerbaijan Friendship Group, the Greece – Indias Friendship Group, the Greece – Kazakhstan Friendship Group, the Greek Delegation in the Council of OSCE. He is the responsible MP for the Environment, Energy and Climate Change Sector for the KINAL Party and Member of the Standing Committee on Economic Affairs, the Standing Committee on Production and Trade, the Special Permanent Committee on Environmental Protection and the Parliamentary Delegation in the Organization for Security and Co-operation in Europe (OSCE).

Spilios Livanos

Spilios Livanos was born in Athens in 1967. He graduated from Athens College. He studied Economics and Political Sciences at the University of Massachusetts, Amherst, USA and International Relations and Comparative Political Analysis at the University of Reading, UK. He was employed at the European Commission's Social Fund in Bruxelles, then moved back in Greece as an executive on corporate development of private enterprises. In 2002, he founded a construction and real estate management company operating in Greece and Belgium. In 2007 he was elected for the first time Member of the Greek Parliament. In 2009 he was appointed Deputy Secretary of Political Planning of New Democracy and in 2013 Secretary General of Political and Strategic Planning of New Democracy. In 2016 he was appointed Special Counselor for Entrepreneurship to the leader of New Democracy, PM Kyriakos Mitsotakis. In 2019 he served as Parliamentary Representative for New Democracy in the Greek Parliament. He was a member of the Standing Parliamentary Committee on Cultural and Educational Affairs, the Standing Parliamentary Committee on Economic Affairs, the Special Standing Parliamentary Committee on the Financial Statement and the General Balance Sheet and the implementation of the State Budget. On the 4th of January 2021 he was appointed Minister of Agriculture, Rural Development and Food. He speaks English and French. He is married to Domna Kyrzopoulou, lawyer with whom shares three children, Dionysis, Danae and Alice.

Giorgos Patoulis

George Patoulis was born in Athens, Greece. He entered the Athens Medical School and specialized in Orthopaedic surgery at the Athens Laiko Hospital, where he also wrote a doctoral thesis. He is specialised in Health Economics and graduated from the National School of Public Health. He was elected in the Board of the "LAIKO" Hospital, while at the same time he established the Association of the Trainee Doctors of Athens and Piraeus. In 1997, he established the "Young Doctors" Pan-Hellenic Society and in 2002 the Association of the Freelance Doctors of Attica, where he still holds the position of the Honorary President. In 1998, he was elected municipal counsellor for the first time at the Municipality of Pefki, where he has formed the institution of Municipal Medical Centre. In 2006, he was elected for the first time Mayor of Amaroussion in the Region of Attica. In 2010, he was re-elected with 57% and in 2014 he was again elected for the third time as a Mayor with 60%. At the same time, he established the National Hellenic Inter-Municipal Network of Healthy Cities, while he also became the President of Association of Municipalities for the Protection and Restoration of Penteliko. In June 2011, he was elected for the first time President of the Athens Medical Association. He was re-elected in the same post in October 2014 and October 2018, the last time achieving a percentage of 55%. In parallel, in January 2012, he became one of the founding members of the Social Mission Clinic. In October 2014, he was elected President of Central Union of Municipalities of Greece, while in 2015 he was elected Vice President of the Council of Municipalities and Regions of Europe (CEMR), where he was elected again in December 2016. In February 2018, he was elected President of ELITOUR. In the Local Administration elections in 2019, he was elected Regional Governor of Attica with 66%. In October 2019, he was elected A' Vice-President of the Association of Regions. In February 2020, he was elected Vice-President of the European Committee of the Regions (CoR) and Head of the Greek Delegation of the Committee of the Regions for the 2020-2025 term. He has published various articles and other work in scientific medical magazines in Greece and globally. He has a son, Alexandros

Andreas Shiamishis

Holds an Economics degree specializing in Econometrics from the University of Essex England and is a Fellow (FCA) member of the Institute of Chartered Accountants in England and Wales (ICAEW). He began his career in 1989 with KPMG in London, specializing in banking and large multinational Groups before joining the international food and drink group DIAGEO in 1993, to assume senior Greek and European positions in Finance and Business development. During 1998-1999, he also worked for the development of the food sector business (Pillsbury) in Middle East and North Africa. Between 2000-2002 he worked as Chief Financial Officer and Chief Restructuring Officer, in an ASE listed high-tech company (part of LEVENTIS Group) and in 2003 he joined PETROLA HELLAS as Chief Financial and IT Officer. After the legal merger and operational integration of PETROLA HELLAS with HELLENIC PETROLEUM, he was appointed as CFO of the new Group in 2005 and became a member of the Group's Executive Committee. In 2012, he assumed the responsibility for International subsidiaries and he was Deputy CEO during the period 2014-2015 and 2017 2019, when he became CEO. He is a founding member of the American Hellenic Chamber of Commerce (AMCHAM) board of Corporate Governance and is also a member in a number of professional bodies including the Economic Chamber of Greece and ICAEW specialized faculties. In 2020, he was elected in the BoD of the Hellenic Federation of Enterprises (SEV) and from June 2021 he is the President of the Business Council for Sustainable Development (SEV VIAN).

James Smith

James L. Smith is the current President of the International Association for Energy Economics, and Professor Emeritus at Southern Methodist University in Dallas Texas, where he held the Cary M. Maguire Chair in Oil and Gas Management for 23 years before retiring in 2018. Having specialized in energy studies since receiving his Ph.D. in Economics from Harvard University in 1977, Dr. Smith has been a prolific researcher and author. His publications on OPEC, energy markets, real options, auction theory, and the oil and gas business have appeared in numerous academic and trade journals, including the American Economic Review, the Journal of Economic Perspectives, the Quarterly Journal of Economics, the Economic Journal, the Journal of Economic Theory, The Energy Journal, Mathematical Geology, the Oil and Gas Journal, and World Oil. Dr. Smith is a Senior Fellow and Past President of the United States Association for Energy Economics and since 2006 has served as Co-Editor of The Energy Journal.

Maria Spyraki

Maria Spyraki is the awarded MEP of the year 2019 for Industry, Research, and Innovation. She is now serving in her second mandate in the European Parliament as member of the Committees on Industry, Research, and Energy (ITRE), on Regional Development (REGI) and the Environment (ENVI). Ms Spyraki is co-chair of the Intergroup on Climate change, biodiversity and sustainable development and rapporteur at the Renovation Wave for ENVI committee. She has worked for 22 years as a journalist in her home country Greece. Also, she was a member of the Press Office of the European Parliament in Athens from 2003 to 2004, as well as the office of Greek Commissioner to the EU, Mr Stavros Dimas, for the period 2004-2009. Maria Spyraki has served as the Spokesperson of Nea Demokratia and as an elected member of the Nea Demokratia Executive Board. Her first degree is in Chemistry and she also has an MSc in Energy Law, Business, Regulation and Policy from International Hellenic University.

Ambassadors

Matthew Lodge

Matthew Lodge was commissioned as an officer in the Royal Marines on leaving school in 1986. He was sponsored through Birmingham University from where he graduated with a BA (Hons) in Modern Languages (French and Russian). Subsequent duties with the Royal Marines included service in Norway and the United States, and a secondment to the Army which included an operational tour in Northern Ireland and service in Kenya. Matthew joined the Foreign and Commonwealth office in 1996. His early diplomatic career included work on the Balkans and Eastern Mediterranean, service in Georgia and Armenia, and postings to Athens (1998-2000), Paris (2001) and the UK Permanent Representation to the EU in Brussels (2001-2003). From 2004 to 2007 he was Private Secretary to the FCO Permanent Under Secretary and Head of the Diplomatic Service. In March 2007 Matthew was appointed as Deputy Head of Mission at the British Embassy in Baghdad. On his return from Iraq, Matthew attended the Higher Command and Staff Course (2008) at the UK Defence Academy before being appointed as Head of the FCO's Afghanistan Group. From 2010 to 2013, Matthew was Her Majesty's Ambassador to Finland and from August 2014 to summer 2017 Matthew was Her Majesty's Ambassador to the State of Kuwait. In spring 2017, Matthew was appointed as Minister at the British Embassy in Paris, serving concurrently as Ambassador and Permanent delegate to UNESCO (2017-2021). In August 2021 Matthew was appointed as Her Majesty's Ambassador to the Hellenic Republic. Matthew is married to Alexia and they have twin boys.

Geoffrey Pyatt

Geoffrey R. Pyatt, a career member of the Foreign Service, class of Career Minister, was sworn in as the U.S. Ambassador to the Hellenic Republic in September 2016.He served as U.S. Ambassador to Ukraine from 2013-2016, receiving the State Department's Robert Frasure Memorial Award in recognition of his commitment to peace and alleviation of human suffering in eastern Ukraine. Previously, Ambassador Pyatt was Principal Deputy Assistant Secretary of State in the Bureau of South and Central Asian Affairs from 2010-2013. He was Deputy Chief of Mission at the U.S. Mission to the International Organizations in Vienna, Austria from 2007 to 2010. He also served at the U.S. Embassy in New Delhi, India as Deputy Chief of Mission from 2006 to 2007 and as Political Counselor from 2002 to 2006. Ambassador Pyatt served as Economic Officer at the U.S. Consulate General in Hong Kong from 1999 to 2002 and as Principal Officer at the U.S. Consulate General in Lahore, Pakistan from 1997 to 1999. Since joining the Foreign Service in 1989, he has also served on the National Security Council staff, on the staff of Deputy Secretary Strobe Talbott and at posts in Honduras and India. Prior to joining the Foreign Service, he worked with The Inter-American Dialogue, a Washington-based think tank that brings together leading citizens of the Americas. Ambassador Pyatt grew up in La Jolla, California and holds a Master's degree in International Relations from Yale and B.A. in Political Science from the University of California, Irvine.

Enrique Viguera Rubio

Ambassador Viguera has been appointed Ambassador of Spain to the Hellenic Republic on the 21st. July 2017. He was Ambassador Director of Spain School of Diplomacy – Escuela Diplomática- from 2015 to 2017. He previously served as Ambassador of Spain to the Commonwealth of Australia (2011-2015) and to the Kingdom of Sweden (2006-2010). In 2010 he was appointed Ambassador at large for Energy Issues at the MFA. He was Director General for European Integration and European Union Coordination of General and Economic Affairs (2004-2006); Director General for European Union Coordination of General and Technical Affairs (2000-2004) and Deputy Director General for European Union Coordination of General Affairs (1998-2000) at the Ministry of Foreign Affairs in Madrid. He was previously Counselor at the Embassy of Spain in Ottawa (1996-1998) and at the Permanent Representation of Spain to the European Union (1990-1996), where he was delegate in the Council Groups dealing with the negotiations of the European Economic Area (1990-1993), the European Union Enlargement to Austria, Sweden, Finland and Norway (1993- 1995) and the New Transatlantic Agenda with the US (1995). A career diplomat since 1982, he is a law graduated (corporate law, Hons) at Seville University (1971-1976). Studied European integration (law) at the College of Europe in Bruges, Belgium (1979-1980), and International Relations at Spain School of Diplomacy – Escuela Diplomática – Madrid (1980-1981). Ambassador Viguera is married to Marta Altolaguirre and has three children (Pablo, Cristina and Marta). He speaks fluently English, French and German.

Richard Morningstar

Richard L. Morningstar is the founding chairman of the Global Energy Center and a board director at the Atlantic Council. He served as the US ambassador to the Republic of Azerbaijan from July 2012 to August 2014. Prior to his appointment, since April 2009, he was the Secretary of State's special envoy for Eurasian energy. Prior to that, Morningstar lectured at the Kennedy School of Government at Harvard and Stanford Law School. From June 1999 to September 2001, he served as United States ambassador to the European Union. Prior to this, Morningstar served as special adviser to the President and Secretary of State for Caspian Basin energy diplomacy, where he was responsible for assuring maximum coordination within the executive branch and with other governments and international organizations to promote United States policies on Caspian Basin energy development and transportation. From April 1995 to July 1998, he served as ambassador and special adviser to the President and Secretary of State on assistance for the new independent states of the former Soviet Union, where he oversaw all US bilateral assistance and trade investment activities in the NIS. From 1993 to 1995, he served as senior vice president of the Overseas Private Investment Corporation (OPIC). Morningstar also served as chairman of the board and chief executive officer of the Costar Corporation from 1990 to 1993 and as president and chief executive officer from 1981 to 1990. He was an attorney with Peabody and Brown (now Nixon and Peabody) in Boston from 1970 to 1981, where he became a partner in 1977. Morningstar served as a commissioner of the National Conference of Commissioners on Uniform State Laws (1989–1993). Prior to returning to the government in 2009, he served as director of the American Councils for International Education, a trustee of the Kosovo-America Educational Foundation, and a trustee of the Eurasia Foundation. He is a member of the Council on Foreign Relations. Morningstar received his BA from Harvard in 1967 and JD from Stanford Law School in 1970

Speakers

Edmond Airantzis

-Job Experience

New Energy Partners (2021 – Present) Co-Founding Partner

CNL Capital EKES (2015 – present) Founding Shareholder Greece

Premier Energy (October 2014 – present) Member of the Board/Deputy General Manager Romania

Watt S.A. (2013 – 2017) Member of the Board Greece

Emma Capital Investment Group (April 2012-present) Investment Director Greece

Sol Crow Horwath (January 2007-April 2012) General Manager Greece

Business Development Advisor (February 2006-January 2007) Self-Employed Greece

Grant Thornton (November 2004-February 2006) Consultant Greece

D. Devletoglou Securities (1993-1996) Director, Investment Banking (Head of Research, '93 '96) Greece

Deloitte & Touche (1991-1992) Consultant Greece

Ergon S.A. (1990-1991) Assistant to the General Manager Greece

Touche Ross & Co., (1989-1990) Junior Consultant Greece

Birmingham University - Master of Business Administration, International Banking & Finance (1993)

Birmingham University - Master of Science, Industrial Management (1986)

Oxford University - Bachelor of Arts, Engineering Science (1985)

Theodora Antonakaki

Theodora Antonakaki, Director of BoG's Climate Change and Sustainability Centre (CCSC) is coordinating work on climate, sustainability and research at the Climate Change Impacts Study Committee (CCISC) since 2009 and representing BoG at the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). She obtained her Diploma at the Architectural Department of the Polytechnic School of the Aristotle University of Thessaloniki and the MSc in Built Environment at the Bartlett School of Built Environment of the University of London, where she was an Honorary Research Fellow. She has consulted companies in Greece and abroad in a wide range of projects, in planning, urban and architectural design, on issues of sustainability and socioeconomic impacts. She has participated in competitions and her work has gained awards from Europa Nostra and the Ministry of Foreign Affairs of Denmark. Theodora has been an Adjunct Professor at the Syracuse University, presented her work at conferences and has lectured at the Aristotle University of Thessaloniki, the University of Stirling, the School of Nordic Urban Design, University of London and the Hellenic Open University. She has written book chapters in edited books and her work has been published at peer reviewed journals.

Tasos Athanasopoulos

Tasos Athanasopoulos holds a Diploma in Electrical Engineering from NTUA and an MBA in Business Administration from ALBA Business School. He has worked for many years in multinational companies in the Energy sector, holding managerial positions in large infrastructure projects. He has acquired extensive experience in Medium & High Voltage, transmission, distribution and protection of Electrical Energy, as well as Project, Construction and Resource Management in large-scale projects. He is the founder of Enerdia since 2010, a pioneering company active in the Energy sector. Enerdia has established long-term relationships with global energy funds, and has been delivering complete services in the Renewables Sector, such as development, construction, operation & maintenance as well as asset management. The company is currently developing a Renewable Energy project portfolio which exceeds 1.2 GWp, and aims to double that capacity in the next five (5) years.

René Bautz

CEO of Gaznat SA since 2008, René Bautz is also Chairman of Swiss Energy Trading (SET) and Gas&Com (Telecommunication), Board and Committee member of several companies and organizations within the gas industry: Swiss Gas Industry Association, Fingaz, Swissgas, Swiss Gas Invest, Transitgas and Unigaz. He also acts at an international level in the frame of Eurogas, Green Gas Initiative, and the World Energy Council within which he chairs the Global Gas Centre. In 2002, René Bautz joined Gaznat, starting his career in the company as Chief technical officer. He then served as Chief operating officer for two years before taking over as CEO of Gaznat. René Bautz studied electrical engineering and holds a Master of Science degree from the Swiss Federal Institute of Technology in Lausanne (EPFL). He dedicated his entire professional career to the energy sector. René Bautz held the position of Managing director at the Société Electrique des Forces de l'Aubonne (SEFA) for 5 years. Prior to this, he served as Director of the Utility of the town of Bienne (ESB). During this period, between 1994 and 2002, he was also Board member and manager of several companies within the water and energy industries. The first 10 years of his career were spent at the power company Electricité Neuchâteloise (ENSA) as Head of the studies and construction. René Bautz then joined Câbles Cortaillod (now Nexans Switzerland) as Head of the electric network and testing division. As part of his training, he completed an internship on behalf of Brown Boveri Canada in Montreal where he participated in the development of a test platform for electric generators. He further completed his training in the field of business economics and management.

Thierry Bros

- Energy & Climate Research

Professor Paris School of International Affairs, Sciences Po Contributor to Natural Gas World EU-Russia Gas Advisory Council Member Senior Expert, Energy Delta Institute, Netherlands

Author & Co-author of 4 books

- Academic Activities

2005 - Present Lecturing on energy, climate & economics

• IFP School – Université Grenoble-Alpes – Ecole des Mines & ESPCI, Paris 2016 - 2019 Oxford Institute for Energy Studies Senior Research Fellow

- Professional Experience

2021 - Present Tellurian Vice President Research

2020 - 2021 IOGP Senior Policy Manager & Lead Analyst

2017 - 2020 Tellurian Vice President Research

2008 - 2016 Société Générale, Cross Asset Research Senior Commodity Analyst (2011 - 2016)

Senior Financial Equity Analyst (2008 - 2010)

Senior Oil & Gas Expert

1993 - 2001 IFP Energies nouvelles Head of Internal Communication (1996 - 2001)

Oil & Gas Training Officer (1993 - 1995)

- Education

PhD in Management of R&D, Ecole Centrale Paris

Master of Chemical Engineering, Ecole de Physique et Chimie Industrielles de Paris

Master's Degree in Economics, Université Paris Panthéon-Sorbonne

Pantelis Capros

Pantelis Capros, full-tenured Professor of Energy Economics and Operation Research at the Department of Electrical and Computer Engineering of the National Technical University of Athens, heads the E3MLab, a research and consultancy group of scientists, operating since 1988. He holds an engineering degree from NTUA, three Master Degrees in Economics, Informatics and Operations Research from ENSAE, the University of Dauphine and a Doctorat d'Etat (PhD) in Mathematical Economics from the University Pierre & Marie Curie. Prof. Capros has been the first Chairman of the Regulatory Authority for Energy in Greece (2000-2005), a member of the Board of Directors of the Public Power Corporation (1995-2000), a visiting Professor at University of Paris Sorbonne for five years and a researcher at CEA in France (1979-1984). He is a founding member of the European Energy Institute. Prof. Capros has more than 30 years of experience in research, consultancy and studies, in particular for the European Commission. He specialises in the field of energy systems analysis and economics, environmental and climate policies, macroeconomics and industrial economics. He performs empirical research in these fields using and developing large-scale mathematical models. He has widely published (more than 200 publications) in the areas of Energy Modelling, Climate Economics, Empirical Macroeconomics, Operations Research and Mathematical Programming. The E3MLab led by Prof. Capros develops, since 1990 energy-economy modelling, scenario building and impact assessment studies that support the European Commission. Indicative studies are the Reference energy-transport projections (published every two years), and a series of policy reforms, such as the 20-20-20 package (2007), the Low Carbon Roadmaps (2011-2012), the Winter package (2016), the Long-Term Strategy (2018), the Green Deal (2020), and others. The support relies on complex models, such as PRIMES, PRIMES-TREMOVE and GEM-E3, which are tools widely used for energy, transport, climate policies and economic assessments of the EU policy, also in national energy planning studies, roadmaps by Eurelectric and Eurogas and in studies for large private corporations. A series of European governments make use of consulting and modelling services based on E3MLab's models for national energy, economic and environmental planning.

Aristotelis Chantavas

Aristotelis joined the Enel Group in November 2018 and is currently the Head of Europe region in Enel Green Power (EGP). He has a diverse background in the management of different types of renewables projects, varying in both size and type.

His broad professional career in renewable energy, both in Europe and North America, includes executive roles in business development, construction and maintenance, M&A and new investments. Aristotelis graduated in Civil Engineering from DUTH and holds an MSc in Engineering Business Management from University of Warwick, with further specialization in Entrepreneurial Studies at Harvard University.

Nikos Chatziargyriou

Nikos Chatziargyriou is professor in Power Systems at the National Technical University of Athens. He has over 10 year industrial experience as Chair and CEO of the Hellenic Distribution Network Operator and as executive Vice-Chair of the Public Power Corporation. He was chair and vice-chair of the EU Technology and Innovation Platform on Smart Networks for Energy Transition (ETIP-SNET) and chair and founding member of the European Technology Platform on SmartGrids. He is honorary member of CIGRE and Life Fellow of IEEE, currently Editor in Chief of the IEEE Trans on Power Systems. He is member of the Energy Committee of the Athens Academy of Science. He is the 2017 recipient of the IEEE/PES Prabha S. Kundur Power System Dynamics and Control Award. He is author of the book "Microgrids: Architectures and Control" and of more than 300 journal and 600 conference papers. He is included in the 2016, 2017 and 2019 Thomson Reuters lists of top 1% most cited researchers. He is 2020 Globe Energy Prize laureate.

Maher Chebbo

Maher Chebbo, has 30 years of Private Energy & Industries Digital & Venturing leadership roles and15 years of Public Board Leadership roles

Private Industrial:

- Founder & CEO of CTECHNOLOGYS focusing on Digital Venture Capital, Board advisory & Digital Energy Ventures
- Board observer at Greencom-networks (German IOT Energy SME)
- SVP & Global Chief Innovation Officer GE Digital Energy Solutions (3 years)
- General Manager Energy & industries for Europe, Middle East & Africa at SAP (21 years)
- Director of Software Engineering Utilities & Telecom at Cap Gemini (6 years)

Public Board Leadership

- Chair of the Governing Board of REEEP (Investing in Clean Energy Markets - Vienna)
- Chair of the ETIP Batteries European Digital Task Force (European Commission)
- Co-Chair of the SmartGrids (ETIP SNET) Digital Energy Group (European Commission)
- Board member of ARMINES (R&D 50 Labs of MinesParisTech)
- Strategic Advisory Committee member of VITO (Belgium)
- Former President of ESMIG Association (European Smart Metering & Energy Association-Brussels)
- Former Member of the Audit Scientific Committee of TNO (Dutch Government R&D Institute)
- Former Member of the EVCA (European Venture Capital Association)
- Nominated 5th among the Top40 most influential people in European Smart Grids

Athanasios Cholevas

Mr Thanos Cholevas is Head of Global Markets Solutions in National Bank of Greece. Before joining NBG, he worked in Alpha Bank for 14 years in various managerial positions where the last 3 years he acted as a Director in Financial Products Division.

He has thorough experience in Global Markets, Debt Capital Markets and Energy / Commodity Products. He started his professional career in the Treasury Division of Citibank Athens. Thanos holds a bachelor's degree in Economic Science from University of Crete and MSc in Finance and Investment from Brunel University.

Maria Christantoni

Maria Christantoni studied Mining Engineering at the National Technical University of Athens (NTUA) and holds an MSc in Water Resources Science and Technology. She is currently a PhD candidate in Environmental Economics at the NTUA. She is the Sustainability Officer of the Hellenic Republic Development Asset Fund, focusing on the integration of sustainability into the privatization process. She is also a member and co-Coordinator of the National Working Group on Sustainable Financing. She has previously worked for 5 years as Environmental Impact Assessment (EIA) Expert in the Directorate of Environmental Licensing at the Hellenic Ministry of Environment and Energy. She is the youngest-ever elected member of the National Assembly of the Technical Chamber of Greece and has served two consecutive terms from 2010 till 2017

Athanasios Dagoumas

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.

Harry Damaskos

Harris has worked as a Banker in the EBRD Athens Resident Office since its opening 2016, mainly covering Energy, Infrastructure and Corporates.

He has previously worked for BNP Paribas and an international shipping company, as well as the UK Government Economic Service.

Harris holds an MBA from INSEAD and a BSc in Economics from University College London.

Haris Doukas

Dr. Haris Doukas is an Associate Professor at the School of Electrical & Computer Engineering (ECE) of the National Technical University of Athens (NTUA). He is a mechanical engineer from the Aristotle University of Thessaloniki (AUTH), with a PhD in the area of decision support systems for energy policy and management, from the ECE, NTUA. His scientific and research expertise includes the development of decision support systems for energy and climate policy. He has almost 2 decades of working experience in the design of energy and climate policies and programs for the promotion of renewables, energy efficiency and management in a regional, national and European level. Moreover, he participates as a specialist in respective initiatives beyond Europe, such as the countries of the Mediterranean basin and the Arab states of the Gulf. In the abovementioned fields, he has more than 120 scientific publications in international scientific journals with reviewers, the Greek Book "Multiple Criteria Decision Models for Energy and Environmental Systems", the open access Book as co-Editor "Understanding Risks and Uncertainties in Energy and Climate Policy: Multidisciplinary Methods and Tools for a Low Carbon Society", the English Book "Multicriteria Portfolio Construction with Python", as well as numerous presentations in international conferences, chapters in Books, articles in technical magazines and daily and weekly press. Finally, Dr. Doukas is an Associate Editor of the Operational Research International Journal (ORIJ) and participates as member of the scientific journals' Editorial Board in the areas of energy policy and operational research. For his work, Dr. Doukas has received numerous awards by the State Scholarship Foundation (IKY), the NTUA, the AUTH, the Technical Chamber of Greece (TCG), the Hellenic Operational Research Society (HELORS) and the World Renewable Energy Congress (WREC) among others.

Panagiotis Doumas

Panagiotis Doumas is the Managing Partner and co-founder of A-Plus Insurance Brokers, a company specializing in Energy Insurance Lines, having in his delegated authorities the business development and maintenance of big corporate accounts within a variety of territories.

Starting his career back in 1999, Panagiotis has worked as an agent for Phoenix Metrolife Emporiki until 2004, when he joined Frontline Insurance Brokers S.A. operating as a Corporate Producing Broker. He has a BA degree in Business Administration from Deree College in Athens, Greece. and a Postgraduate Diploma in Marine Insurance and Reinsurance from World Maritime University in London, UK.

Guillaume Dupret

Guillaume Dupret, Energy Market Director of Akuo Energy holds an MSc from the Ecole des Mines in France with a Major in financial mathematics.

For the last 12 years he has co-built and managed a commodity trading floor for a french IPP, before moving to the renewable energy sector. In 2017, Guillaume joined Akuo to develop all the activities related to energy markets and private offtake strategies for Akuo's renewable assets, worldwide.

Spyros Economou

President of the Board of Directors at the Center of Renewable Energy Sources (CRES) from September 2019. Dr. Economou received his PhD degree from the Catholic University of Leuven and his Engineering Diploma from the National Technical University of Athens, Dept. of Mining & Metallurgical Engineering.

He has worked in industry and research in Belgium, Canada, Middle East (UAE & KSA) and Greece in various management positions. His research work has been presented in 43 publications in scientific journals and international conferences. In addition, Dr. Economou as an EC expert has evaluated more than 100 business plans from SMEs requesting funding for their innovative products or services.

Panagiotis Ekaterinidis

Education:

1993 - 1996: BA (Hons) in Business Management, University of Portsmouth, UK.

1993 - 1996: Diploma of Higher Education in Business Management, University of Portsmouth, UK.

1987 - 1993: 1 st High School of Argiroupoli, Athens.

Experience:

May '18 – Present Marketing Director Citroën Hellas, Marketing Director DS Automobiles, Aiglon S.A.

Feb '08 – Apr '18 Group Product Manager, & Connected Services Manager, Volkswagen KOSMOCAR S.A.

Dec '03 – Jan '08 Group Product Manager PC-LCV & Deputy Marketing Marketing, RENAULT MAVA S.A.

May '00 – Nov '03 Product Manager, SEAT TECHNOCAR S.A.

Jun '99 – Apr '00 Junior Product Manager, SEAT TECHNOCAR S.A.

Dec '98 – May '99 Communication Assistant, SEAT TECHNOCAR S.A.

Konstantinos Eleftheriadis

Konstantinos Eleftheriadis is the Energy Industry Leader and a Financial Advisory Partner at Deloitte Greece. He specializes in Financial Advisory, M&A Transactions and Forensic Services. With over 17 years of professional experience, Konstantinos' expertise has been instrumental in a range of sectors with special focus in the Energy & Resources market, both locally and internationally. Konstantinos specializes in services like: transactions, M&A assistance, feasibility studies, independent business reviews, liquidity, business and e-mobility plans and advice on Power Purchase Agreements, for many Greek and international clients that are operating in Power generation, Renewables, Oil & Gas, Mining & Metals, Waste treatment.

George Filiopoulos

Georgios Filiopoulos is the CEO of Enterprise Greece, Greece's national investment and trade promotion agency. Before serving in the public sector, Mr. Filiopoulos worked as a business executive for various companies and organizations in the U.S. and Greece.

He received his MBA from HEC Paris, holds an MA in International Relations from the Fletcher School of Law and Diplomacy, an MA in Journalism from the University of Memphis, and a BA in Advertising from Kansas State University.

https://www.linkedin.com/in/georgiosfiliopoulos/

Amir Foster

Amir Foster worked as a Senior Energy Analyst in Israel's financial market. In 2012 he established the "Foster Consultancy Group" that focuses on the energy sector in general and natural gas in particular.

Among the company's clients were gas companies, government ministries and various organizations from Israel and abroad. In 2016 Mr. Foster was appointed as the Head of Strategy and Research of at the Israeli Association of Oil & Gas Exploration Industries, and since 2019 he acts as the Executive Director. Amir holds an McS in Finance from Tel Aviv University.

Samuel Furfari

Prof. Samuel Furfari (aka Samuele) is a Chemical Engineer from the Free University of Brussels. In 1982 he received his Ph.D. from the same university with a thesis in the field of energy. Between 1982 and 2018, he was a senior official at the Energy Directorate General of the European Commission where he has devoted an entire career to energy technology and policy in practically all fields of energy (strategy, outlooks, technologies, environment, climate change, renewable energy and energy efficiency) until its end position as adviser to the director general. Since 2003 he is a professor of energy geopolitics and energy politics at the Free University of Brussels. He also lectures at various universities. He is the author of many articles and of 18 books on energy and sustainable development; the last is 'Energy and Geopolitics, Volume 1: Fundamentals' (Cambridge Scholars Publishing, 2021). Since 2019 he is President of the European Society of Engineers and Industrialists. He is Knight of the Order of Merit of the Republic of Poland.

Maria Rita Galli

Maria Rita Galli is the CEO of ðesfa. Until recently she held the position of the Executive Vice President Business Development & Asset Management at Snam S.p.A, a leading global energy infrastructure company and was the Chairman of the SENFLUGA Energy Holdings S.A., a consortium controlling 66% of ðesfa's share capital. Ms. Galli started her career at Eni in 1997, as a graduate in nuclear engineering from the Milan Polytechnic University. At Eni, she went through various roles within the International Business Development Department, joined relevant international projects and was involved in M&A activities. As a member of Eni's Board of Directors, she also oversaw the operations of some of the Group's companies abroad (Galp, Distrigas, eni Gas&Power Trading BV, eni Gas&Power France, GVS GmbH, etc.) Since 2006, she has been in charge of the International Business Development unit and, from January 2010, she has been in charge of the International Business Development and Assets Management department. In October 2016, she joined Snam as the Head of Business Development and International Asset Management.

Vasilis Georgiou

Vasilis Georgiou was born in Athens, in 1966. He received a BEng degree on Electrical Engineering, an MBA and a MSc in Management of Energy Systems. He further holds a certification in management of industrial working systems. In his professional career he developed his expertise in strategic management such as business development, business analytics, project management, strategic design, organizational development, and transformation. His technical and business focus includes electrical systems, power generation and supply, electrical protection, automation, control, and metering. Today his technical emphasis includes electrification, RES integration, energy storage, smart technologies, and digital transformation. Since 2002, he is the President and Managing Director of PROTASIS SA, a Company providing Studies, Consulting, Design & Engineering and Advanced System Solutions for electrical power systems and networks. Through continuous development, focus and dedication his aim is to foster organizational growth within an innovative, technological advanced, progressive, people friendly, rewarding and customer-oriented environment. Before his current position he worked for various SMEs and multinational companies in the field of electrical energy and telecommunications.

Christos Georgopoulos

He co-founded Inaccess in year 2000 as a smart controls company and is its CEO ever since. At Inaccess he develops the business strategy and product direction, manages business development, and pursues strategic cooperations with technology vendors and key customers. His main interests include Renewable energy (primarily PV) and related technologies (Batteries, Microgrids, dispatchable loads), Grid compliance and Market Integration. He is a member of various international associations and a frequent speaker in sector-specific conferences and thematic events on the topic of smart energy, renewables systems and optimal grid integration. Before starting Inaccess, from 1998 to 2000, Mr. Georgopoulos carried out R&D work for Lucent's Bell Labs on automation and controls and automation for smart homes and enterprises; from 1993 to 1998 he was an R&D associate with NTUA, Greece, working in research projects with several EU telecommunications companies on the topic of integrated broadband networks. He holds a diploma in Electrical & Computer Engineering and a Ph.D. in Integrated Broadband Networks, both from NTUA, Greece.

Konstantinos Gioutikas

I was born in 1976. Together with my wife, Antonella Dalakoura, a pharmacist, and our two children, we live in Chalastra, Thessaloniki, where my privately owned business is also based. I graduated from Anatolia College of Thessaloniki and the Democritus University of Thrace, Department of Civil Engineering. I am a member of the Technical Chamber of Greece since 2001. Since 2002, I am a co-owner of the Gioutikas K. & Co. construction company, which undertakes projects such as the construction of industrial buildings, technical studies for private constructions, urban planning support, agricultural-livestock facilities and Renewable energy sources, etc. In 2014 I was elected Regional Councellor of Thessaloniki in the Region of Central Macedonia. From 2016 to 2019, I was the Vice-Regional Minister of Development and Environment of PKM, an office that I hold until today after my re-election in 2019. From 2014 to 2017 I participated as a member of the council of the Axios Delta National Park and the Koronia and Volvi Lakes Management Agency. From 2017 until today, I participate as a member of the council of the body of Management of Protected Areas of Thermaikos Gulf.

George Ioannou

Professor George Ioannou is the CEO and BoD member of EnExGroup. He is the Leader of the implementation of the target model, Professor of Operations Management at the Department of Management Science and Technology of the Athens University of Economics (AUEB) and Business and Director of its Management Science Laboratory. He holds a diploma in Mechanical Engineering from the National Technical University of Athens, a M.Sc./DIC in Robotics and Automation from Imperial College and a Ph.D. in Mechanical Engineering from the University of Maryland at College Park. He served as an Assistant Professor at the Department of Industrial and Systems Engineering of Virginia Tech, directing the Manufacturing Systems Integration Lab, as well as a GRA at the Institute for Systems Research. He has received the Microsoft Excellence in Education Award and many Teaching Excellence Awards as Director and Academic Coordinator of the Energy Club of AUEB's MBA International. He was an Executive BoD member of Hellenic Railroads SA as well as a member of the Innovation Council at the Ministry of Development, of AUEB's Senate and of AmCham's Innovation Committee and he has served as Head of the Evaluation Committee of ΣΥΖΕΥΞΙΣ II (Information Society SA)

Dimitrios Kardomateas

Energy Expert with 35 years' experience in engineering, project development, strategic planning, regulation, financing and management of the energy sector, in particular natural gas, as well as in relevant European policies.

More specifically:

- Chemical engineer, graduate of the National Technical University of Athens, with postgraduate studies in environmental control at the University of Manchester (M.Sc.) and in Business Administration at the Hellenic Management Association.
- Process engineer at ASPROFOS Engineering S.A.(6 years)
- Head of the Gas Contracts Department and Director of Strategic Planning at DEPA S.A. (15 years)
- General Manager for Strategy, Development & Regulation at DESFA S.A. (13 years). In parallel, Chief Financial Officer of the company (4 years).
- President of the Management Organization Unit (M.O.U.) S.A. (3 years).
- Elected member of the Management Board of European Organizations in natural gas (ENTSOG, GIE, GTE) (10 years)
- Invited member of the Gas Market Task Force of the Conseil de Coopération Economique (CCE) (5 years)
- National Representative for the negotiation of the first and second gas directives and at the E.C. Committee for the Trans-European Energy Networks Program
- Advisory work on energy matters to European Authorities and energy companies

Avraam Kartalidis

Avraam Kartalidis, is a Mechanical Engineer, holds an MSc in Energy Management and Environmental protection and a PhD in Renewable Energy and Desalination.

He is actively participating in EU research projects since 2007 related to Renewable Energy and Energy Management. Currently, he is a Research Associate in CERTH/CPERI and manages INSULAE and NESOI projects.

George Kasapidis

George Kasapidis was born in Kozani in 1971. He holds a Bachelor's Degree in Agriculture, with specialization in Crop Production from the School of Geotechnical Sciences, Aristotle University of Thessaloniki and an MSc in Agriculture with specialization in Agricultural Economy from the School of Geotechnical Sciences, Aristotle University of Thessaloniki. He is the Regional Governor of Western Macedonia, since September 1st 2019.He is an alternate member of the European Committee of the Regions and Chairman of the Environmental Committee of the Association of Greek Regions. From 2004 to 2019 he was a Member of the Greek Parliament, elected by the people of the Prefecture of Kozani, with the New Democracy Party. In 2003 he was elected with the majority of votes as a member of the Regional Council of Kozani. He was a founding member of the Aristotle University Graduate Students' Association in 1999. He joined the Agricultural Association of Kozani in 2000 and Consumer Protection Centre of Kozani in 2002. In 2002, he started working as a self -employed agronomist and producer of aromatic and medicinal plants and essential oils. In 2004 he introduced to Greece and piloted the first plantation of roses and lavender in the prefecture of Kozani. He founded the Cooperative of Aromatic and Medicinal Plants of Voio. He twice served as the Head of Rural Development Policy Division of the New Democracy party. He has been married since 2015 with Katerina Diou, an employee of the Rural Economy Department of the Region of Western Macedonia

Symeon Kassianides

Dr. Symeon Kassianides is the Founder, CEO and Chairman of the Hyperion Systems Engineering Group. He holds a PhD and DIC in Chemical Engineering from Imperial College of Science, Technology and Medicine, London (UK), a BSc in Chemical Engineering from the Massachusetts Institute of Technology (USA) and has extensive experience in project execution and management of technology in the process manufacturing industries. He has been a Member of the Board of the Natural Gas Public Company (DEFA) since 2014 and was appointed as Chairman in March 2017.

George Kavvouras

EXPERTISE

- Business and Construction Management
- Power & Grid Engineering (High Voltage Environments)
- Expertise in Public and Private Markets, Joint Ventures, PFI and PPP Projects,
- Business development and
- Business Management in Electrical and Civil Works Environments
- Legal: contracts negotiation
- Environment and Sustainability
- Cost Management
- Direction of Construction Projects
- International Business Development

EXPERIENCE

- Vinci Energies TTE: Project Director (2012 - current)
- Various HV projects in the UK for National Grid and SSE (circa 100M€)
- Various Projects in Europe and Africa (circa 350M)
- MSVE JV Engineering Manager
- Member of the JV Management Board
- Direction of Projects and Business Development
- Management and coordination of Engineering Design and Works
- Contracting at project and client level.
- HCA and EMDA UK : Project Director (2006-2012)
- THE AVENUE Regeneration Project in the UK (circa 200M€)

Olga Khakova

Olga Khakova is the associate director for European energy security at the Atlantic Council Global Energy Center, where she manages transatlantic energy initiatives. Before joining the Atlantic Council, Khakova was a senior program coordinator for US Energy Association's Energy Technology and Governance Program. She helped start and coordinate the Western Balkans' Electricity Market Initiative working group, which provides technical expertise on creating better-connected electricity markets. Khakova also worked as a program director for a leading energy non-profit in the Midwest, The Climate + Energy Project (CEP). While at CEP she co-led the conception and development of the Clean Energy Business Council, a network of businesses seeking to capitalize on renewable energy resources in Kansas and the greater Kansas City area through legislative, regulatory, and educational solutions. Khakova facilitated state-wide stakeholder engagement on energy issues, such as education and outreach on rate design dockets at the Kansas Corporation Commission. During her time at Bombardier Aerospace, Khakova organized events and developed communications strategies in Brazil, Canada, China, and the US for a distinguished human factors safety program called Safety Standdown. Khakova has a business administration degree from Wichita State University and a professional science masters in environmental assessment from the University of Kansas. She is originally from Ukraine.

Arslan Khalid

I specialize in the analysis of renewable energy policies and socio-economic impacts of renewables. I have worked extensively on the analysis of renewable energy policies using both qualitative and quantitative methods. More recently, at IRENA, I have contributed to the research and development of several publications on topics including auction mechanisms, regional policy analysis and water-energy nexus. I have co-authored publications on the renewable energy landscape of the Gulf Cooperation Council (GCC) with focus on topics such as policy frameworks, cost competitiveness and renewable desalination. Finally, my work on socio-economic benefits of renewables is primarily focused on employment impacts. I hold a masters in Engineering Systems and Management from Masdar Institute and a bachelors in Electrical Engineering from University of Engineering and Technology Lahore.

Spyros Kiartzis

Dr. Spyros Kiartzis is the New Technologies and Alternative Energy Sources Manager, for the Hellenic Petroleum Group. He received his Diploma and his PhD in Electrical Engineering from the School of Engineering; and his degree in Economics from the School of Law and Economics; all from the Aristotle University of Thessaloniki and finally his MBA from the Hellenic Open University. Following a period in the construction sector supervising restoration projects in Mount Athos, he served as a part-time instructor in the University of Western Macedonia and in the International Hellenic University. He joins the Hellenic Petroleum Group in 2001 where he held a range of posts in maintenance and project construction sections (including the Project Management Team for the construction of a 390 MW CCPP), before becoming Manager of New Technologies and Alternative Energy Sources. He is Managing Director of ElpeFuture an e-mobility service provider (Subsidiary of Hellenic Petroleum Group), and also Managing Director and Vice Chairman of Energiaki Pylou-Methonis SA a wind park owner. He is also member of the Board of Directors of "ELPEDISON S.A." and "Hellenic Petroleum Renewable Energy Sources S.A." (Subsidiary of Hellenic Petroleum Group) and has served as member of the Board of Directors of "EKO Bulgaria S.A." (Subsidiary of Hellenic Petroleum Group).

Giannis Klavdianos

Mr Klavdianos is a graduate of Economics & Finance from University of York in the UK and holds an MSc in Shipping, Trade and Finance from Cass Business School in London and an International MBA from Athens University for Economics and Business. During the first 15 years of his career he has worked in the Greek financial sector where he was entrusted key responsibilities and senior positions in the areas of Treasury, Investment Management and Operations. Since 2017 and till joining DEDA SA in 2019 he has worked as a Financial and Business Consultant.

Kyriakos Kofinas

E-Mobility Leader, Executive Search, Executive Coaching. Entrepreneurial Executive leading on Purpose and Transformation, Retail Executive. Awarded Executive Coach on Change, Execution, Growth.

He has international leadership experience with Global Companies across 6 Industries and in more than 100 countries, in setting-up companies, recruiting C-Suite, building networks and distribution channels, start-ups on e-mobility, growing 10x exponentially international businesses, coaching CEOs/Business Owners with Marshall Goldsmith / ActionCOACH. Awarded Most Outstanding CEO Coach in the UAE (2019).

Konstantin Konstantinov

Konstantin Konstantinov, CEO of Independent Bulgarian Energy Exchange EAD (IBEX) since its establishment in 2014, has a Master's degree in "Electrical engineering" from the Technical University of Sofia. He also holds a Master's degree in "International Business Relations" from the Technical University. Konstantinov has got a solid experience in energy sector. Prior to this role, he was an Electricity trade director at the Bulgarian electricity public provider - National electricity company EAD (NEK) and a member of the board of directors of NECO S.A. From 2005 to 2013 Konstantinov was a member of the Management board and a Deputy executive director of Enemona Utilities EAD. Prior to joining Enemona Utilities he was a senior specialist Geographic Information Systems at Electricity Distribution Sofia EAD.

Nikolaos Koutsogiannis

Nikolaos Koutsogiannis was the founder of the Naoussa International Film Festival, which was the most significant digital cinema event in the region of South East Europe. He is a graduate of University of Macedonia in International and European Economic and Political Studies with a Master degree in International Relations and a second Master degree in Marketing, Advertising and Public Relations from the University of Sheffield. He was elected Mayor at the 2014 mayoral elections with the urge of the younger people of his hometown Naoussa. During his mandate he envisioned and planned the innovative and pioneering project of energy production generated by small hydropower stations installed in the city's existing water supply system which he presented at the European Council, in China and several other conferences in Greece and abroad. He is now advisor to the Board at HENGAS for strategy and communication, thus becoming part of the most rapidly developing sector of Greek economy.

Marchel Kramer

Marcel Kramer is a Dutch national residing in Amsterdam. After obtaining a Master's degree in Private and Corporate Law, he held several positions in Government and in international organizations (NATO, International Energy Agency). Subsequently Marcel spent his entire career in international energy companies on different continents. He has held a range of senior executive positions in the international energy industry and has an extensive global personal network in this field. He currently works as an independent consultant, company director and advisory board member on strategy, policy and project management in the field of energy and infrastructure. He is also President of the Energy Delta Institute, an international energy business school, which supports the development of executives through a wide range of industry courses and learning-related events. Marcel Kramer is a frequent public speaker on energy topics and lectures in several executive education programs associated with universities in Europe and Russia. He is an active longstanding member of the Council of the International Gas Union (IGU), for which he also reports to the IGU President as 'Regional Coordinator' for Russia, the Black Sea region and the Caspian.

Loukas Lazarakis

Loukas Lazarakis has been recently appointed as General Manager of the Energy Unit at "Intrakat", leading its dynamic expansion in the sector of Renewable Energy Sector. Prior to "Intrakat", Loukas has served as the CEO of "Nostira S.A.", a renewable energy company with main activities the development, construction and asset management of RES units. He brings more than twenty years of executive experience in the Renewable Energy Industry. Having joined "Windsolar Hellas S.A." in 1999 as CFO, Loukas originally worked in Finance roles and in 2003 was one of the founders of "RETD S.A.", in which he held positions of CFO/CEO. In 2007, "RETD S.A." became an EDF EN subsidiary and five years later Mr. Lazarakis was appointed CEO in "EDF EN Hellas S.A." until June 2017. During his career, he has gained a reputable experience in the Energy sector having developed major RES projects, summing up to hundreds of MWs, in Greece, Cyprus and Romania. Loukas was in charge of the strategic directions and financial decisions of the organizations he cooperated with, while implemented hundreds of millions of financing facilities and facilitated 500MW of RES projects in Greece. He holds a degree in Economics from University of Piraeus.

Christian Lelong

Christian has over 20 years of experience in energy, technology and financial services. As Director of Natural Resources at Kayrros, he leads the development of remote sensing technologies for the energy transition, ranging from monitoring methane emissions to tracking the carbon sequestration of forests. Before joining Kayrros, Christian was a senior commodities analyst at Goldman Sachs, where he advised corporate clients and investors. Previously, he held roles in Strategy and Marketing at BHP, the world's largest mining company. Christian earned an MBA from INSEAD and an MSc from Télécom SudParis.

David Livingston

David Livingston is a senior analyst at Eurasia Group, the world's leading geopolitical risk firm, and a senior fellow at the Atlantic Council, a think tank in Washington, DC. Previously, he worked as a deputy director at the Atlantic Council Global Energy Center, as a fellow with the Carnegie Endowment for International Peace, and as the inaugural Robert S. Strauss fellow for geoeconomics at the Office of the US Trade Representative. David has also worked at the World Trade Organization in Geneva and at the United Nations Industrial Development Organization in Vienna. David holds a bachelor's degree from the University of Southern California and a master's degree from the University of Oxford. He serves as an adjunct associate professor at the University of Southern California, teaching a course at its Washington, DC campus, and serves as a mentor and strategist for the Obama Foundation Scholars program.

Vasilis Machias

Vasilis Machias is the Country Manager for Greece at Axpo Solutions AG. With more than 17 years of experience in the global energy trading business, Vasilis has worked for European energy firms, including EDF Trading and Gazprom Marketing & Trading. A graduate of the Athens University of Economics & Business and the London School of Economics, he started his career as an energy markets analyst at the advisory firm ICF International in London while, most recently, he headed the commercial, regulatory and O&M functions at ElecLink, the 1 GW merchant electricity interconnector connecting the UK and France.

Anastasios Manos

In the Past:

Lafarge Holcim Europe-Head of Procurement Balkans.

Heracles GCCo - General Manager responsible for Logistics, Exports, Distribution Terminals, Procurement and Group IS/IT.

ANEH Shipping Subsidiary-Managing Director.

PPC Renewables -Project Manager for Mergers & Acquisitions and Business Development

BCG (The Boston Consulting Group) - Consultant.

PQH S.A.- COO

Co-Founder - startups in medical device industry

Education :

INSEAD – MBA.

Technical University of Crete - MSc. in Engineering Management

National Technical University of Athens (NTUA) - BA/MA in Naval Architecture & Marine Engineering

Grigoris Marinakis

Grigoris joined Voltalia Greece at its establishment in 2007, where he started his professional career in Renewable Energy as a Development Manager, managing the company's finance as well as the projects' development and construction phases. In 2011, he was appointed Country Manager, where he extended the company's entire operations and activities from an Electricity provider to being also a service provider. He successfully developed new business activities within the Renewables' Market in Greece which involved the entire value chain of a renewable project: development, engineering, procurement, construction (EPC), operations & maintenance (O&M) and asset management. Before joining Voltalia, Grigoris gained a significant experience in the maritime Business where he managed large shiping companies employing more than 100 employees.

Nuno Marihno

Nuno is the head of RES Integration and Flexibility area at EDP NEW. He graduated in electrical and computer engineering from the Faculty of Engineering of the University of Porto, Portugal in 2014 and received the PhD degree from CentraleSupélec, Paris, France in 2018. Since November 2019 he has been working at EDP NEW, being responsible for leading the research team within the subjects of RES integration and flexibility. He is also the project coordinator of IANOS, a H2020 funded research project with 34 partners from 8 different countries and an overall budget of around 8,8M€. Before this experience, he worked as a Research Engineer for EDF R&D in its "Economic and Technical Analysis of Energy Systems" department on topics related with power system's regulation operation and planning. This includes transmission and distribution network expansion planning, grid integration of storage and renewable energy and regulatory analysis of the European electricity markets. Nuno integrates the Portuguese Future Energy Leaders cohort.

Andrea Martinez

Andrea Martinez has over 25 years of experience in the infrastructure and local development market space. He is actively involved in the deployment of several technical assistance EIB ELENA schemes, ESIF financing platforms, Horizon 2020 projects aimed at accelerating the energy transition process. He is Deputy Managing Director at Sinloc - Sistema Iniziative Locali SpA, an investment and advisory company, participated by ten leading Italian Banking Foundations. Since 2011 he is Key Account and Investment Team Manager of JESSICA Urban Development Funds in Sicily, Sardinia and Campania. Since 2014 he is member of the Steering Committee of Green Building Council Italy and has been board member of several special purpose vehicles involved in energy and urban regeneration. Starting from October 2019 he is Project Coordinator of the EU Islands Facility NESOI.

Konstantinos Mavros

Konstantinos Mavros has significant and diversified experience in the broader energy sector and the fields of corporate finance and technology. He has worked in the past in the Renewable Energy Sector, and has been leading companies in the technological field. He has also co-founded a Venture Capital fund supported by the European Investment Fund. He is an active member and holds key positions in several international professional and academic associations and has been a visiting lecturer at the Athens University International MBA program. Mr Mavros holds a Masters' degree in Finance from Imperial College London and has completed high level executive education programs at Harvard Business School.

Matteo Mazzoni

Matteo Mazzoni is Head of Market Strategy at Snam, supporting the business in analysing all the main energy trends across markets, evaluating business initiatives and developing mid-to-long term scenarios.

Matteo has over 10 years of experience in energy analysis and energy modelling, with previous experiences spanning from the power sector to the gas sector and energy planning for public institutions.

Panagiotis Mitrou

Panos Mitrou has been with LR for more than 14 years and currently holds the position of Global Gas Segment Manager, based in Piraeus. His primary focus is on areas like the seaborne gas supply chain, LNG and other gas as fuel,as well as gas floating solutions, delivering an enhanced service portfolio to shipping community. He has held commercial and technology positions since 2012 and has been deeply involved in the setup and materialization of several funded projects related to alternative fuels and innovation in the maritime sector. Since 2013, he has initiated Poseidon Med, a key cross-border European project, introducing LNG bunkering in Easter Mediterranean marine transportation. During his seven year service with Lloyd's Register Piraeus Technical Support Office, he has dealt with series of statutory and other reviews, ranging from BWM to MARPOL and the IBC and IGC Codes. In this context he has supported and lead the implementation of several pieces of new legislation. Since 2007 he has represented Lloyd's Register in a number of international forums, conferences and projects. Panos holds a Naval Architect and Marine Engineer Diploma from NTUA and an MBA in Shipping from ALBA Business School. He is currently a PhD candidate in Naval Architecture, Ocean and Marine Engineering, at University of Strathclyde with focus on optimizing the shipping decarbonization pathway.

Miloš Mladenović

Miloš Mladenović has graduated in Faculty of Electrical Engineering in 1995 at University of Belgrade. Following the establishment of the Serbian TSO (EMS), starting from 2005 he has played important role in the emerging process of the Serbian electricity sector unbundling and liberalization of the national electricity market, acting as the Executive Manager for System and Market operation and Director for International and Regulatory Affairs in EMS. With comprehensive regional and European experience, acting as a member of the ENTSO-E Board and ENTSO-E Market Committee, as well as the Chairmen of the SEE RG within ENTSO-E MC, he becomes also one of the key players in the process of the SEE Electricity Market integration and EU Target Model implementation in the SEE region. Since July 2015, he works as a Managing Director of SEEPEX (South East European Power Exchange), JSC established by EMS and EPEX SPOT.

Antonis Mountouris

Dr. Antonios Mountouris is currently Head of Health, Safety, Environment and Sustainable Development Division of Hellenic Petroleum Group, mainly responsible for the key health, safety, energy and refining environmental & climate change issues as well as sustainability performance and reporting (e.g. CDP, Carbon Footprint, ESG indices). After completing his studies in Chemical Engineering at the National Technical University of Athens (NTUA), he obtained a PhD on waste management and energy recovery (NTUA) and an MBA from Hellenic Open University. He has previously worked as an R&D engineer and an environmental consultant, and since 2006 he has been working at the Hellenic Petroleum's Headquarters. He has various publications and is also a reviewer in scientific journals in the field of environmental and energy management.

Agis Papadopoulos

Agis M. Papadopoulos obtained his Diploma in Mechanical Engineering from the Aristotle University Thessaloniki in 1989, his Master of Science in Energy Conservation and the Environment from Cranfield University (UK), in 1991, and his Doctorate in Mechanical Engineering, from the Aristotle University Thessaloniki in 1994. Since 1998 he is Professor for Energy Systems at the Department of Mechanical Engineering of the Aristotle University Thessaloniki and since 2013 he is Director of the Process Equipment Design Laboratory. His main research interests lie in the fields of (a) Energy and environmental design of buildings, (b) Energy conservation and renewable energy resources and (c) Energy and environmental economics and policies. He has coordinated more than 65 national and international research projects and authored or co-authored more than 125 papers in peer reviewed journals and 270 papers in conference proceedings. He is Editor-in-Chief of the International Journal of Sustainable Energy. He is a Visiting Professor at the Technical University of Hamburg, Germany. Between 2014 and 2018 he was Vice-Chairman of the Governing Board of the Open University of Cyprus. Since August 2019 he is Chairman of the Board of EYATH S.A. – Thessaloniki Water Supply and Sewage Company, listed at Athens Stock Exchange.

Constantinos Papalucas

Constantinos Papalucas (MEng, MBA, MPA) is an Energy Policy Expert and an EastMed Specialist. Since October 2019 he is advising the Greek Minister of Environment and Energy on Energy Policy, Infrastructure and Investments. In December 2020, he was appointed as the Coordinator of the National Hydrogen Committee whose mandate is to prepare the Hydrogen Strategy of the Hellenic Republic and he also coordinates the Greek participation in the Important Projects of Common European Interest (IPCEI) on Hydrogen "Technologies and Systems" putting the first five Greek hydrogen projects in the IPCEI pipeline. Moreover, he led the joint task force between the Greek Ministry and the U.S. Department of Energy that jointly develop a regional CCUS concept in Greece with the participation of several energy corporations. In the past he served as an Associate at Harvard University's Belfer Center for Science and International Affairs and in the U.S. House Energy and Commerce Committee. Upon his return from the United States, he founded EastMed Energy Hub, consulting energy corporations that seek to invest in the Eastern Mediterranean and governments on natural resources management, advocating for a regional energy hub in the Eastern Mediterranean.

Panagiotis Papastamatiou

Papastamatiou is Director of ENTEKA Group where he directs the development and financial sectors of the Group. Moreover, he is Chief Executive Officer of the Hellenic Wind Energy Association, ELETAEN. He has a vast experience in energy projects development in Greece and in Balkans with special focus and deep knowledge in wind energy. In the past he worked as advisor for the Hellenic Ministry of Development as well as for other public and private corporations. He holds Diploma in Electrical Engineering from NTU of Athens with PhD in Operational Research and Energy Policy & Planning and postgraduate lessons in Economics and Management in Athens University of Economics and Business. He is elected member of the Board of Directors of the Greek Association of RES Electricity Producers, GAREP.

Dimitris Papastergiou

I was born in Trikala, in 1973. I studied Electrical Engineering and Computer Engineering in Polytechnic School of Athens by choice and because of my love for electronics, programming and broadcasting. I have also designed and constructed several energy projects, in the private sector. I believe that the road of participation in social life is one-way road, if we want to change our lives. That's why since the age of 29, I got involved with municipal projects and initiatives, from various offices. In 2014 and 2019, as head of the political party "Restart Now", I was elected Mayor of Trikala. In additional, in 2019 I was honored by the Mayors of Greece, who they elected me as President of the Union of Mayors of Greece (KEDE). Watersheds in serving local government are the initiatives for the Trikala city branding, the development of a smart city in Trikala, the implementation of the non-smoking law, the handling of the refugee situation, and the modification of our mentality. My goal is to develop real smart and sustainable cities, within strong and modern Municipalities I am married to civil engineer Soula Braki and our family is lovely with three kids. I commute by bike, because it's a way of life.

Peti Perka

She was born in Florina, Western Macedonia in 1961. She obtained her Diploma as a Civil Engineer and a Master's Degree (MSc) on Transport at the Polytechnic School of the Aristotle University of Thessaloniki. She has worked in the private and public sector. Overtime, she has been a member of the Central Committee for SYNASPISMOS Party and later on for SYRIZA Party. For many years she has been a member of the Board of Directors of the Technical Chamber of Greece (TCG) – Section of Central Macedonia and a member of the Management of the TCG. She has served the Government of SYRIZA (2015-2019) from the position of Secretary General of the Ministry of Infrastructure and Transport, Secretary General of Public Property of the Ministry of Finance and in 2018 she was assigned by the Prime Minister and the Interministerial Committee for Coordination of Major Infrastructure Projects the role of Coordinator of the investment of the Metropolitan Pole of Elliniko Ag. Cosmas. As a SYRIZA Member of Parliament for Florina, she has served as Deputy Head of the Transport & Infrastructure sector, while at present she is serving as Deputy Head of the Environment and Energy Sector. She is a mother of two children.

Elias Petris

Elias Petris is Strategy & Business Development Manager at NRG Trading House S.A.

Experience:

Board Member - Coral Innovations S.A.

Strategic Analyst - Motor Oil

Energy Financial Analyst – Regulatory Authority for Energy

Management Consultant - PWC

Andreas Poullikkas

Dr. Andreas Poullikkas holds a Bachelor of Engineering (B.Eng.) degree in mechanical engineering, a Master of Philosophy (M.Phil.) degree in nuclear safety and turbomachinery, a Doctor of Philosophy (Ph.D.) degree in numerical analysis and a Doctor of Technology (D.Tech.) higher doctorate degree in energy policy and energy systems optimization from Loughborough University, U.K. He is a Fellow of the Institution of Engineering and Technology (FIET). Dr. Andreas Poullikkas is currently the Chairman of the Cyprus Energy Regulatory Authority (CERA) and he was for several years the Chairman of the Cyprus Energy Strategy Council (both appointments by the President of Cyprus). In his professional career he has worked for academic institutions and for the industry, such as, a Visiting Faculty at Harvard University, USA, the Cyprus University of Technology (Professor of Power Systems and Chair of the Department of Electrical Engineering) and the Electricity Authority of Cyprus (founder and director of the Research and Development Department). He is the Associate Editor of the Journal of Power Technologies, member of the Editorial Board of the journal Sustainable Energy Technologies and Assessments and the author of various peer-reviewed publications in scientific journals, book chapters, conference proceedings and the author of nine books. He is included in the World's Top 2% Scientists and the World's Top 100000 Researchers Lists, both published by Stanford University.

Lucian Pugliaresi

Mr. Pugliaresi is President of the Energy Policy Research Foundation (EPRINC), a public policy energy think tank founded in 1944. He has led the organization's research effort on the scope and benefits of the North American petroleum renaissance. EPRINC's programs are focused on the intersection of petroleum economics and public policy. EPRINC publications on developments in U.S. and international petroleum markets are made available at the foundation's website, www.eprinc.org. Mr.Pugliaresi has served in a wide range of government posts, including the National Security Council at the White House (Reagan Administration), Departments of State, Energy, and Interior, as well as the EPA. He has written extensively on energy and frequently testifies before various committees of the U.S. Congress. His career in the federal government included central policy roles in the development of the Strategic Petroleum Reserve, decontrol of domestic crude oil and gasoline prices, nuclear nonproliferation, offshore oil and gas leasing on federal lands, U.S. trade policy, environmental regulations, energy security, and U.S./Soviet relations. Mr. Pugliaresi has published extensively on petroleum topics and is a frequent contributor to the Wall Street Journal. Among some of his recent publications are "Future Oil Supplies Can Lower Prices Today," Wall Street Journal, June 2, 2011; "Lessons of the Shale Gas Revolution," Wall Street Journal, September 30, 2011; "The Keystone Debacle," Wall Street Journal, November 16, 2011; "North America's Strategic Loss: Keystone XL Pipeline and the High Cost of the American Regulatory Regime," Geopolitics of Energy, Canadian Energy Research Institute, Dec – Nov 2011. "Keystone Can Help the Gulf—and the Northeast," Wall Street Journal, January 31, 2012. "Ethanol's hidden gasoline tax," Washington Times, May 7, 2012. "Time to Rethink Renewable Fuel Rules," CNBC online, April 18, 2013. "Repeal or reform the RFS," The Hill, August 2, 2013. " Obama's Keystone pipe blockage, U.S. energy dependency is counter-progressive," The Washington Times, August 13, 2013. "Don't let protectionism strangle America's energy renaissance," The Hill, December 23, 2013. "American Perspective, Oil and Gas Development, Arctic in World Affairs, A North Pacific Dialogue, Korean Maritime Institute, 2013. "Will Latin America join petroleum's new world order?" Forum, Oxford Energy Institute, November 2014, Issue 98. "Congress' Bizarre idea to pay for health care (with L. Goldstein). Politico, July 2015. "The SPR Can Limit the Economic Harm from a Supply Disruption," Wall Street Journal, November 15, 2015. "Pruitt will reform EPA's heavy-handed regulations," The Hill, January 10, 2017. "US consumers benefit from energy integration with Mexico, Canada," The Hill, February 17, 2017. "Time to take fuel-efficiency mandates in for a checkup," The Hill, March 11, 2017. "Growing importance of US–Mexican energy trade," Forum, Oxford Energy Institute, June 2017. "Future of Asian LNG", Joint Project of EPRINC and Institute of Energy Economics, Japan (IEEJ), published annually 2017, 2018, and 2019.

Konstantin Romanov

Head of Green Innovations at Gazprom

Experience:

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Ricardo Raineri

Ricardo Raineri Bernain is Past President of the International Association for Energy Economics. Former Chilean Energy Minister and Chairman of the Board of de Chilean State Oil Company (ENAP), former Alternative Executive Director of the World Bank Group, and Senior Economic Advisor of Associated Universities y Director Desarrollo ICTL, and 2021 Member of the High-level Dialogue`s Technical Working Group on Energy Transition, UN DESA Is Professor of the Engineering School at Pontificia Universidad Católica de Chile. Holds a bachelor's in economics, Business Engineer professional degree and a master's in economics degrees from the Pontificia Universidad Católica de Chile, and a Master of Arts (MA) and Doctor of Philosophy (Ph.D.) both in Economics from the University of Minnesota. Member of the Editorial Board of The Energy Journal. Economist with vast professional experience in the energy sector and institutional issues that address issues such as the economics of regulation and antitrust policy, market structure, pricing, business strategy and competition, and corporate governance. Has published in a variety of academic and professional journals, and regularly advices government agencies and private companies.

Vasilis Roussakis

Mr. Roussakis is an Executive Administrative Manager with over 20 years of experience providing thorough and skillful support to senior executives. He is an M.I.S expert on the field of Pharmaceutical production, as well as, expert on Maritime Telecommunications Networks.

He is a Mechanical Engineer (Florida International University) with an M.Sc. in Management Information Systems. Mr. Roussakis has served in several high-level business policy-making positions in the United States and Greece.

Septimiu Rusu

Has been working in the last 15 years in the capital market sector in various positions in market institutions in the private sector. With a theoretical background in economics he has been acting as CEO of Sibex Depository and Development Director at Sibex Exchange for several years.

In the last years he has focused on energy trading and market development of energy markets in the EU regulated and is currently acting as Development Manager for new products and market structures at Romanian Commodity Exchange in Romania.

Gulmira Rzayeva

Ms. Gulmira Rzayeva is a Research Associate at the Oxford Institute for Energy Studies (OIES) and visiting research fellow at the Center on Global Energy Policy of Columbia University. She is also on board of directorate of the Institute for Effective Governance and Stabilization based in Stockholm, Sweden. She is a founder and managing director of the London-based Eurasia Analytics Ltd consulting company. She was a senior research fellow at the Center for Strategic Studies (SAM) under the President of the Republic of Azerbaijan for last ten years until January 2019. Her area of expertise includes energy security covering issues such as the energy policy of Azerbaijan and East Europe/ Caspian region, Turkish domestic natural gas market, SEE gas market, global natural gas market, gas-to-hydrogen etc. Ms Rzayeva is recognized worldwide for her reports and seminal articles about energy focusing on the region, as well as for her speeches in some of the most prestigious universities including Harvard University, think-tanks and prestigious international conferences world-wide. Ms. Rzayeva has published several scholarly publications focusing on her area of expertise.

Mamadou- Abou Sarr

Mamadou is the Founder and Chief Executive Officer of V-Square Quantitative Management, a global investment firm headquartered in Chicago. Mamadou founded V-Square in 2020 after an accomplished career in asset management whilst working for global financial services company across the U.S., Europe, Middle East and Africa. His investment firm specializes in financial engineering, development and management of quantitative portfolios and processing of sustainability big data. Industry leader in the field of sustainable investing and financial innovation, Mamadou's previous role was global head of product development and sustainable investing at Northern Trust Asset Management in Chicago, where he was responsible for driving innovation and product development across asset classes. Mamadou spearheaded, developed and led one largest sustainable investing platform in the industry. Mamadou received his bachelor's in economics from the Université Paris-Saclay and holds a master's in International project management from the European School of Management (ESCP), Paris. In 2014 he was named in the Financial News "Top 40 under 40 Rising Stars in Asset Management" in Europe, Middle East and Africa. In 2017, Mamadou was named a "40 under 40" by Crain's Chicago Business. In 2017 he was also recognized in Top 50 Individuals who contribute the most to sustainable & responsible investment industry in the world (IRRI). Mamadou is actively involved in philanthropic and civic activities and is the co-founder of Les Beaux-Arts Paris Sarr Prize. He is a fellow of Leadership Greater Chicago since 2019, a member of the Economic Club of Chicago, an Adjunct Professor of Sustainable Investing at the Baumhart Center (Loyola University Chicago) and a guest lecturer of Impact Investing at the Wharton School of the University of Pennsylvania and Harvard Business School. He is a board member of CFA Society Chicago, the Art Institute of Chicago, the US SIF (The Forum for Sustainable and Responsible Investment), the Nature Conservancy Illinois Chapter and he is a member of Rush Health Equity Advisory Council (Rush Hospital). Mamadou is a French Foreign Trade advisor, appointed by decree from the Prime Minister of France and is a Certified Investment Fund Director (CIFD).

Nicolò Sartori

Since 2020 Nicolò Sartori works as Senior Researcher at Enel Foundation. Among his topics of research, the transformation of the energy sector and the political and socio-economic implications of the decarbonization process, with special attention to the geographic areas of sub-Saharan Africa and the Mediterranean basin. He extensively publishes and regularly participates to international conferences and symposia on these subjects. Priori to that, he worked for a decade at the Rome-based think tank Istituto Affari Internazionali (IAI), where he founded and ran the Energy, Climate & Resources Programme of the institute. Nicolò is Adjunct Professor in "Natural Resources and Energy Security" at the Master in International Security Studies (MISS) of the University of Trento and Adjunct Professor in "Energy Diplomacy" at the LUMSA University in Rome. In addition to this, he lectures on international and European energy, climate and sustainable development policies in different academic institutions, including Sciences Po's Master in International Energy, and the LUISS Guido Carli's Masters in International Security. He holds a BA in International and Diplomatic Studies from the School Roberto Ruffilli in Forlì and an MA in International Relations from the University of Bologna, and a specialization course in "Analysis and Management of Energy and Environmental Policy" from the Harvard Environmental Economics Program (HEEP) at Harvard University.

Gianfranco Scalabrini

Gianfranco is Italian, graduated in Mechanical Engineering and has a PhD in Thermo-Mechanic Engineering Systems. Soon after graduation Gianfranco became professor of Technical Physic and developed many entrepreneurial initiatives. In 2000 Gianfranco joint McKinsey & Co. where he held the position of Associate Partner in the industrial sectors, mainly in Power&gas, Oil and Basic Material. In 2010 Gianfranco joint Azimut|Benetti, world leader in yachts production, as Group Director and CEO of all the foreign companies. After 1,5 year, Gianfranco decided to come back to the consulting joining 3H partners. In parallel, Gianfranco came back to the teaching as professor in London, Milan, Turin and Rome. In 2016, Gianfranco was designed by the Health Ministry President of Istituto Nazionale Genetica Molecolare. In 2021 Gianfranco was designated board member of ClubDealOnline one of the biggest Equity Crowd Funding Firm. Gianfranco's interests are also in management transformation. He is the author of numerous articles, published on newspapers (as "Management Matters", "Corriere della Sera"), magazines (as "I campioni della crescita", "Global Competition") and case studies (as "reducing uncertainty through disciplined experimentation). Gianfranco is also author of many scientific publications on the main International magazines in the Technical Physics sector.

Michael Schmela

Michael is Executive Advisor to the CEO and a member of the leadership team. Alongside his business development work, Michael heads SolarPower Europe's award-winning market intelligence team. He is lead author of the annually published Global Market Outlook, and works closely with Policy Analyst Raffaele operating the Solar & Storage Task Force, and is responsible for the content of the annual Digital Solar & Storage Conference. Michael has been working in solar for over 20 years. After co-founding Photon-Magazine in 1996, he served in various positions within the Photon group, primarily as Editor-in-Chief of Photon International. In 2014, Michael started MISCHCO, a company offering strategy consulting and communication services to solar companies. In 2016, TaiyangNews, a digital news platform for the solar industry that Michael founded, went online. Michael studied Geology/Palaeontology at Bonn University, Geology at RWTH Aachen, and Mineralogy at Frankfurt University. He speaks German and English.

Andrew Scorer

Andrew is passionate about the maritime industry and focused on the development of freight rate forecasts and capturing volatile patterns and trends of freight rates, trade flows and market dynamics. With a solid background in shipping, Andrew has worked in yacht, Royal Navy and shipbroking.

Andrew has a wife and two daughters and loves to escape into nature on his mountain bike or trail shoes. He is a Liveryman of the Worshipful Company of Shipwrights.

Aristofanis Stefatos

Mr. Aristofanis Stefatos holds a PhD in Geology from the University of Patras and has specialized in Environmental Oceanography. During the last 15 years he has worked in oil companies abroad with their main activity being the exploration and development of hydrocarbon deposits having held senior and top management positions. Since 2011 he has been a manager in Norway in private hydrocarbon exploration and production companies and is a founding member of four Norwegian companies. He has been the General Manager of Operations at M Vest Energy AS during the last four years, and the Director of Land Management and Technology at Atlantic Petroleum Norge before that. Dr. Aristophanes Stefatos' exploration work has been exposed to several geological settings namely in Europe, North America, the Indian Ocean, West Africa and Southeast Asia.

Despina Tomadaki

Ms Despina Tomadaki works in the European Investment Bank as a Senior Loan Officer, currently responsible for the financing of public sector operations in Greece, mainly in the utilities sector.

With more than 20 years of working experience, she has worked for the structuring and implementation of operations across various sectors in Greece, Italy, Spain, Portugal and the UK. She is a Chemical Engineer with a degree from the Technical University of Athens (NTUA), a MSc in Finance from Imperial College, London and a PhD in Industrial Economics from NTUA.

Konstantinos Tomaras

Mr. Tomaras is General Director of SPYROPOULOS SA, a technical-commercial company active in the fields of Renewable Energy Development, Engineering, Procurement and Construction, specialized in the Photovoltaic Sector. The Company has around 150MW of installed capacity in photovoltaic plants, over 250MW in electromechanical maintenance, 600MW in panel cleaning and weed management services and a pipeline of over 500MW to be constructed in the RES sector in Greece. Mr. Tomaras is and experienced Electrical Engineer & Manager with a demonstrated history of work in the renewables and construction industry. Strong engineering professional skilled in Financial Analytics, Renewable Energy, HVAC, Project Finance, and Investment Banking. He has worked in the UK in the Investment Management Sector (2008-2010) as Financial Analyst, while in Greece he worked since 2010 in the Renewable Energy as well as in the HVAC Sector and Commercial Refrigeration as an Engineer and Project Manager & Technical Manager. He studied Electrical Engineering (MEng) at the Aristoteleion University of Thessaloniki and is a member of the Technical Chamber of Greece, member of the IAEE (International Association of Energy Economics) and member of the EPHE (Union of Electrical Producers). Moreover, he holds an MSc in Energy Trade and Finance from Cass Business School of City University London where he has been the recipient of the prestigious Alexander S. Onassis Public Benefit Foundation's scholarship. He is also a member of the CFA UK holding also the CFA Certificate in Investment Management. Furthermore, he is trained as a Project Management Professional (PMP) - PMI Greece Chapter.

Anastasios Tosios

Anastasios Tosios is the Deputy CEO & Executive Member of the Board of Directors at EYDAP SA (Athens Water Supply and Sewerage Company). Until 2002, he held positions in management, consulting, sales, and supervision of electromechanical constructions, in various companies at Thessaloniki and Athens. From 2002 till 2016, he worked for EPA Attiki SA (Attiki Gas Supply Company), holding successively the positions of Key Account Manager, B2B Sales Manager, Customer Technical Service Director and finally, that of Technical Director. From 2017 till mid-2019, after the successful split of EPA Attiki in two entities of Supply and Distribution in the end of 2016, he undertook the positions of the Distribution Operating (Technical and Commercial) Director and then, of the Commercial Director at the newly established EDA Attikis SA (Attiki Natural Gas Distribution Company). He holds a master's degree in Mechanical Engineering from the Aristotle University of Thessaloniki, Greece, an MSc in Technical Change and Industrial Strategy from the Alliance Manchester Business School, UK, as well as an Executive Diploma in Business Administration from ALBA Graduate Business School, Greece. He has also completed the Leadership Development Program Advanced (PLDA) at Harvard Business School, USA. He has extensive experience in utilities and energy market. He serves as a Vice Chairman of the Hellenic Association for the Cogeneration of Heat and Power (HACHP), and as a Member of the BoD and the Executive Committee of the Institute of Energy for South East Europe (IENE).

Theodoros Tsakiris

Dr. Theodoros Tsakiris is an Associate Professor of Geopolitics and Energy Policy at the University of Nicosia's Business School. Since 2018, Dr. Tsakiris is also Visiting Professor at the ESCP Europe Business School in Paris. Dr. Tsakiris is an international Research Associate of ESCP's London-based Research Center for Energy Management and has directed the Energy Program at Greece's principal Foreign Policy think-tank ELIAMEP between 2011-2017. Between 2017-2019 he served as a member of the Executive Board at the Hellenic Association for Energy Economics and between 2014-2015 he was an Associate of the Southeast Europe Program at the LSE. Dr. Tsakiris has served in several high-level policy-making positions in Greece and Cyprus including the Office of the Minister of Energy & Development, the Board of Directors of the national oil & gas company of Cyprus, CHC (Cyprus Hydrocarbon Company), the office CEO of the Greek Natural Gas TSO, DESFA, and the Presidency of the Republic of Cyprus (Geostrategic Council).

Yiannis Yiarentis

Yiannis Yiarentis is currently the CEO and the Chairman of the BoD at DAPEEP S.A., which is the state company authorized to operate the Renewable Energy Sources in Greece, handling 14.000 RES production contracts and 2 billions budget annually. During 2013-2015 he was the CEO and the Chairman of the BoD of ADMIE, the company which is the Utility company operating the Electric Transmission System in Greece. His work experience in top managerial roles within Energy sector in Greek and Multinational companies supported by his academic background in Petroleum Chemistry, Engineering and Sustainable development helped him to result significant results through his 30 years carrier. He represented Greek State in several European Committees (ENTSO-e, MED-TSO), also being member of the Greek National Counsils.

Moderators

Naji Abi-Aad

In September 2012, Naji Abi-Aad started acting as COO to Petroleb, an oil company based in Beirut and active in petroleum exploration offshore the East Mediterranean and the Gulf. In the meantime, Naji had been engaged with the US Tellurian as Senior Advisor for the Middle East from December 2016 to March 2020. Prior to his move to Lebanon, Dr Abi-Aad was serving for eight years in Qatar, first as Research Advisor for Qatar Petroleum (QP) and its Board of Directors Department, and as Media and Research Strategist in the Office of HE Qatar's Deputy Premier, Minister of Energy & Industry, before being appointed to top positions in Qatar Petroleum International (QPI). Dr Abi-Aad studied in Beirut at the American University and Universite St Joseph before been awarded a Ph.D. degree in Energy Economics from Grenoble University in France. During his 35 years of experience, he has been involved in extensive consultations, conferences and studies, particularly on oil and gas in the Middle East, their resources and supply prospects. He has authored over 100 reports and studies on Middle East energy issues, as well as a book on security of petroleum supply from the region ("Instability & Conflict in the Middle East: People Petroleum & Security Threats, Macmillan, London 1997").

Kostas Andriosopoulos

Professor Dr. Kostas Andriosopoulos is the Executive Director of the Research Centre for Energy Transition & Sustainability Center at Audencia Business School where he holds the position of full Professor in Finance and Energy Economics. Kostas holds a PhD in Finance (Cass Business School, City University London), where he has been the recipient of the prestigious Alexander S. Onassis Public Benefit Foundation's scholarship. He also holds an MBA and MSc in Finance (Northeastern University, Boston, USA), and a bachelor's degree in Production Engineering and Management (Technical University of Crete, Greece). In addition, Kostas held the position of Executive Director of the Research Centre for Energy Management at ESCP Europe Business School. Kostas is a member in various professional and academic associations.In addition to his academic profile, he has an extensive professional experience in the business world and has served as a business consultant in energy, food, web & software, commodity trading and shipping industries. During September 2019 February 2021 he was appointed Vice Chairman of the Board of Directors of the Hellenic Public Gas Company (DEPA), a position he also held for the period 2014-2015. Since August 2018 he is Country Manager of Akuo Energy in Greece, a multinational company based in France that develops RES projects in 17 countries around the world. In addition, he has worked as an advisor to the Retail Banking Director and Managing Director for the British Bankers' Association (2007). Kostas' current interests include energy-related geopolitical issues, gas and LNG market dynamics, RES investments, financial engineering and the application of operational research tools on risk management and investment techniques in energy, shipping and agricultural commodity markets. His work has been published in international finance and commodity-related Journals and has participated as speaker in recognized conferences world-wide. He is the Associate Editor for the International Journal of Financial Engineering and Risk Management, Member of the Editorial Board of the Journal of Energy Markets, he has edited special issues in recognized journals, acts as a reviewer for a number of academic journals, and has organized numerous international conferences.

- President of the Energy Committee of the American-Hellenic Chamber of Commerce.
- President of the Decarbonization Fund of the Greek islands for the Hellenic Ministry of Environment & Energy.
- Founder and former Chairman of the Hellenic Association for Energy Economics (a think-tank focusing on issues related to energy, the environment and the economy).
- Board member of the Global Gas Center - World Energy Council as a Gas and LNG markets expert.
- Member of the board of the International Association for Energy Economics (IAEE) as a Vice President for Publications.
- Founding board member of the Financial Engineering and Banking Society.
- Member Technical Chamber of Greece.
- Member of the Beta Gamma Sigma honor society, which recognizes outstanding academic achievements of students enrolled in collegiate business and management programs.
- Member of the Energy Commission of the Industry and Parliament Trust in the UK (2012-13).

Eleni Charisi

Eleni Charisi is an energy market reporter at Argus Media, covering Central and Southeast Europe gas markets. Prior to joining Argus, she worked in the solar energy sector in Turkey and the United Kingdom.

Eleni holds a Master of Science degree in Energy Law, Business, Regulation and Policy from International Hellenic University.

Pierre – Jean Cherret

Pierre-Jean Cherret is managing director new business at items international, a French strategic consulting boutique in the fields of energy, digital, telecom, innovation. He is mainly involved in developing new markets, strategic alliances, building startup ventures, creating origination and investment strategies, program management in the energy &utilities & industries sectors. He is engaged in complex acquisition projects with VC financial institutions and innovation ventures to build our future on topics related to smart energy and cities systems involving new digital and deeptech developments. Pierre-Jean Cherret is also professor in the executive and fulltime "energy management master" of ESCPE on innovation and entrepreneurship. He holds engineering degree in computer science & applied mathematics and a master degree from CentraleSupelec in energy markets and technologies.

Haris Floudopoulos

Harris carries more than 15 years of experience in business reporting, specializing in the energy, industry and shipping sectors. In 2006 he joined Capital.gr and in 2009 newspaper Kefalaio. He also contributes articles to the Greek edition of Forbes magazine as well as several energy related media such as Energypress and Businessenergy magazine.

During his career as a journalist he has worked for numerous Greek media such as newspapers Eleftheros, Express, Isotimia, Extra Channel etc. In 2014 – 2015 he was chief press officer in the Ministry of Economy and Competitiveness (Minister K. Skrekas). Harris is a graduate of Communication and Mass Media School of the National and Kapodistrian University of Athens (1997).

Nick Frydas

Nick Frydas is a Chartered Power Systems Engineer and Energy Economist and has more than 30 years of professional experience in the power sector. He specializes in the design and regulation of competitive Energy Markets, in new Business Models for energy utilities, energy policy and institutional reforms, and in techno-economic feasibility studies for energy investment projects. Nick's experience includes working with major European Utilities (PPC, National Grid) and Energy Trading firms (EDF Trading, Merrill Lynch), and as member of the management team of ENTSO-E in Brussels. In the period 2004-2007, he served as the first Chairman of the Board of the Energy Regulatory Office of Kosovo, appointed by the United Nations. During the period 2016 – 2020 he worked for the World Bank Group out of Belgrade, and since August 2020 is based in Athens with the Advisory business of Grant Thornton. Mr. Frydas is also a visiting Lecturer and Member of the Advisory Board of the "Research Center for Energy Management", at the "ECSP Europe Business School" - https://www.rcem.eu/about/advisory-board/

Tasos Garis

Dr. Tasos Garis has 35 years experience in management gained initially as an executive with major international companies such as Shell and McKinsey based in London with global exposure.

More recently he served as the CEO of PPC Renewables and as the Chairman/CEO of LAGIE, the Greek energy operator. Currently, he is a visiting professor at the ESCP university in London/Paris, and a senior adviser to various corporations including Infravia Capital Partners and Akereos Capital. Dr. Garis holds a BSc in Engineering, an MBA and a Doctorate from UK Universities.

Jean – Michel Glachant

Jean-Michel Glachant is the Director of the Florence School of Regulation and the Holder of the Loyola de Palacio Chair. Glachant took his Ph.D. in economics at La Sorbonne in France. He worked in the industry and private sector before becoming professor at La Sorbonne.

He has been advisor of DG TREN, DG COMP and DG RESEARCH at the European Commission and of the French Energy Regulatory Commission (CRE). He has been coordinator and scientific advisor of several European research projects. Jean-Michel Glachant has been editor-in-chief of EEEP: "Economics of Energy and Environmental Policy" (an IAEE journal) and he is vice-president of the International Association for Energy Economics.

Victor Grigorescu

An expert on energy policy and European economic policy, Victor Grigorescu was Romania's Minister of Energy from November 2015 to January 2017. He is currently working as an energy Consultant focused on EU affairs in SEE and CEE regions. A former member of the board of Electrica, one of Romania's largest electricity distribution companies, he also has a background in diplomacy and international relations, having served at the Permanent Representation of Romania at the EU (2007-2011) as an expert for the EU's common commercial policy. He actively took part in Romania's accession negotiations to the EU during his time at the Ministry of Economy and Commerce (2004-2007), focusing his work on international relations and the EU's common commercial policy. Before being appointed minister of energy, he has published various articles on public policy and international relations in Romanian and has co-authored several works on the Transatlantic Trade and Investment Partnership. He is a graduate of Bucharest University's Law School.

Vassilis Kalavrouziotis

Vassilis Kalavrouziotis holds an MSc and a BSc in software engineering from Patras University, in Computer Engineering and Informatics department. His MSc Thesis subject was about Artificial Intelligence and Machine Learning algorithms applied in geospatial and user generated data. Since 2016, he is a PhD candidate in the same department. His subject area is Distributed Ledger Technology (DTL) and Machine Learning (ML) applications in energy management for distributed Renewable Energy generation and storage (hybrid power stations). In 2015 he collaborated with the Hellenic Academic Libraries Link (HEAL Link) at the National Technical University of Athens and the academic Library of the University of Patras. He took over as software engineer in Kallipos project, an online repository for academic e-books. Meanwhile, in 2017 he joins the workforce of Eunice Energy Group as Director in the Software and IT department. He was actively involved in TILOS project, leading the team that developed the software for the SCADA system of the hybrid power station. Vassilis Kalavrouziotis is currently CEO of Brainspace. Brainspace provides custom solutions regarding the energy transition, such as holistic systems for energy management in an efficient way, data analysis and forecast for energy data.

Nektaria Karakatsani

Nektaria Karakatsani is an expert in energy regulation and EU funding. She is an advisor to the Minister of Energy and Environment in Greece, and a Member of the Board at the Center for Renewable Energy Sources and the Hellenic Survey of Geology and Mineral Exploration. She has acted as a member of the Board of RAE, CEER and ACER Board of Regulators. She holds a PhD in Energy Economics from London Business School and an MSc from Oxford University. She has worked as an energy consultant for UK institutions and firms, focusing on market reforms and risk management. She has published her research in influential journals, including Energy Economics, Journal of Forecasting, Oxford Handbook of Economic Forecasting and Journal of Non-linear Dynamics and Econometrics. She has been teaching forecasting, business statistics and econometrics at LBS, LSE and City University. Over the last years, she has written more than 60 articles to raise public awareness on issues of green funding, energy transition, infrastructure, consumers and competition.

Kyriaki Kosmidou

Kyriaki Kosmidou is Full Professor in Banking Finance at the Department of Economics, Aristotle University of Thessaloniki, Greece, Director of the Postgraduate Studies in Master in Business Administration-MBA and Director of the Division of Business Administration of the Department of Economics of Aristotle University of Thessaloniki, Greece. Prof. Kosmidou holds a PhD in Banking Management from the Department of Production Engineering and Management from Technical University of Crete, Greece, MSc in Finance and Economics from the University of Montreal, Canada and BSc in Mathematics from Aristotle University of Thessaloniki. She has served as visiting professor, both in graduate and postgraduate studies at the Technical University of Crete (Department of Production Engineering and Management, Department of Mineral Resources Engineering, 2003-2006), University of Crete (Department of Economics, 2003-2006) and Athens University of Economics and Business-AUEB (Department of International and European Economic Studies, 2006-2007, Department of Accounting and Finance, 2007-2009). Since 2010, she is visiting professor in the postgraduate program MSc in Banking and Finance at International Hellenic University. From 2006, she also teaches at the postgraduate program "Banking" at the Hellenic Open University. She has been keynote speaker in many training seminars dealing with banking finance, portfolio management and financial risk management. She has published more than seven books as well as many research papers in issues relevant to banking management, financial risk management, banking performance evaluation, investment evaluation, portfolio management and energy economics in well-known refereed academic journals such as Journal of Banking and Finance,Journal of Financial Stability, Research in International Business and Finance International Review of Financial Analysis, European Journal of Operational Research, I mega, Optimization Letters, Applied Financial Economics, Journal of Multinational Financial Management, Managerial Finance, European Journal of Finance, The Energy Journal and Energy Policy She has refereed for several scientific journals such as European Journal of Operational Research, Operational Research: An International Journal, Journal of International Financial Markets, Institutions and Money, Applied Financial Economics, Journal of Banking and Finance etc.She is the Vice President of the Board of Directors of the Hellenic Association of Energy Economics and member of the Board of Directors of the Hellenic Finance and Accounting Association and the Financial Engineering and Banking Society. She is an active member of European Financial Management Association, Multinational Finance Association, Euro Working Group on Financial Modelling, Euro Working Group on Multicriteria Aid for Decisions, Hellenic Operational Research Society. Among others Prof. Kosmidou has organized national and international conferences and has participated in various scientific committees. She has presented various topics in banking finance and risk management to over 60 national and international conferences.

George Kremlis

Special advisor to the Greek Prime Minister on environment and Circular Economy. Honorary Director in the European Commission (EC), in charge of circular economy issues on behalf of DGENV. National coordinator for the EEC internal market (1990-1992), Head of the EEC Committee under the Greek Prime Minister (1993), Secretary General for European Affairs in the Ministry of National Economy (1993), Head of the Legal Unit DG ENV (1995-2004). Head of the "Legal affairs and Governance" Unit (2004-2005). Head of the Unit "Cohesion Policy and Environmental Impact assessments" (2005-2013) Head of the "Mainstreaming and Environmental Assessments" Unit (2013-2018) Member of the Board of the Espoo Convention, and elected Chair of the upcoming MOPs in 2019 and 2020.

Thomas Lamnidis

Thomas Lamnidis is a founder and the managing partner of Lamnidis Law, a law firm with a heavy focus on Energy Law and Natural Resources. Mr. Lamnidis is a practicing lawyer with more than 30 years of experience in Energy, as well as all civil, corporate, and administrative matters that can occur throughout the lifespan of an energy project. Mr. Lamnidis retains considerable experience in International Transport, Infrastructure, International Arbitration, and Privatisations. Throughout the last three decades, he has advised governmental bodies, multinational companies, and supra-national entities, also including EU bodies and IFIs, such as the World Band and EBRD. In so doing, he has held i.a., the capacities of Legal Advisor, Project Director, and Legal Key Expert. The above transpire under the auspices of various projects, taking place across multiple jurisdictions, encompassing states lying in Central Asia, Southeast Europe, the Middle East, and Caucasus. Furthermore, Lamnidis Law and Mr. Lamnidis personally currently advise large international energy groups and international organisations, for the development of energy projects in Greece and abroad including multicounrty energy projects. Finally, Mr. Lamnidis is a Member of the Board of Directors of the Energy Institute of South East Europe.

José Maillet

José Maillet is a marketing professor. He is an expert in energy, climate and biodiversity issues and leads Gaïa, Audencia's School for Ecological and Social Transition. Gaïa is the very first school launched by a business school - Audencia - dedicated to training in positive impact managerial strategies and practices, in line with the major challenges of ecological and social transition.He holds a Master's degree in Social and Human Sciences, Sociology of Organizations from the University of Nantes (2007), and is also an Audencia Grande Ecole (2011) and Doctor of Management Sciences and Marketing (Audencia, 2019) alumnus. He was head of the Marketing major at Audencia from 2016 to 2019. He also supported Nantes Métropole in the CSR criterization of its public markets.

Faidra Mavrogiorgi

Faidra Mavrogiorgi is a journalist. She holds a bachelor degree in Communication and Mass Media and a master degree in New Media and Journalism from Panteion University.

Her professional career begins in 2013. She worked as an editor in various newspapers and websites. During the last 4 years, she was the editor in chief of the energy Greek portal energyin.gr and the national newspaper "Energy & Economy". Her experience and passion for journalism took her career one step further, with her most recent professional step being the creation of her own specialized portal esgstories.gr.

George Moutzorogeorgos

George Moutzorogeorgos graduated from the Department of Mechanical Engineering and Aeronautics of the University of Patras. Also, holds an MSc in Energy Production and Management and an MSc in Engineering - Economic Systems both from the National Technical University of Athens. Mr. Moutzorogeorgos has significant and diversified experience in the energy sector and the fields of electricity markets and Renewable Energy Sources. Currently, he is an advisor to the Secretary General for Energy and Mineral Resources at the Greek Ministry of Environment and Energy, contributing to important projects, such as the submission of the Ministry's state aid cases to the European Commission and the decarbonization of islands. Previously, he has worked at the Hellenic Corporation of Assets and Participations (HCAP) supporting its utilities portfolio as an energy advisor and at the Regulatory Authority for Energy (RAE) as an energy analyst in the field of retail electricity and natural gas markets.

Miguel Palacios

Miguel Palacios is a Professor of Management at ESCP Business School, as well as the Executive Education Associate Academic Dean at the Madrid Campus. He also coordinates several research projects on innovation and family business and is the PI of ESCP Business School at the EU recognized Digital Innovation Hub in Artificial Intelligence & Robotics for Sustainable Development Goals (DIH - AIR4S). He has supervised several PhD thesis in Spain and Sweden and is also currently the PhD Advisor of two students at Universidad Politecnica de Madrid (UPM). His areas of research and publications are Business Models, Innovation and Family Business across industries and more specialized in the energy sector. He regularly serves as evaluator of European projects and advisor of start up companies.

In 1992, he graduated from Ecole Centrale Paris, then, in 1994, from Universidad Politecnica de Madrid, Master in Electrical Engineering. He followed the Master in Business Administration in MIT Sloan School of Management and obtained the MBA in 1999. He also holds a PhD in Business Administration since 2005, with a discussion on "Critical Success Factors for Businesses Plan Competitions. Development of a Model for the case of the Universidad Politecnica de Madrid." In the course of his career, he worked at Alcatel from 1993 to 1997 as a Development Engineer in the R&D Department, Industrial Electronics production facility, then as a Project Manager, Operations Department. From 1999 to 2001, he worked as a Management consulting manager at Cluster (now Oliver Wyman), in the areas of Strategy, Marketing and Start-up development, of Product management and of team management. From end of 2001 until September 2012 he was a faculty member at UPM where he taught Marketing, Strategy and Entrepreneurship, managed the Business Administration Faculty Unit and several international programs. He has been taken part in the area of Business Planning in the European Commission funded project Eureca and coordinated the participation of ESCP in the EU funded project STARS4ALL.

Thodoris Panagoulis

He studied at the Physics Department of the Faculty of Physics and Mathematics of the University of Athens, but turned early to journalism. Today he is the Director of the specialized portal www.energypress.gr and covers the energy report at www.news247.gr.

Among other things, he has worked as the editor-in-chief of financial reports in the newspaper "EPENDYTIS" and in the newspapers "ETHNOS" and "AGORA", while for three years he presented the weekly TV show Energy Week on the financial channel SBC. In addition to his purely journalistic work, he has directed communication campaigns, edited financial book publications and participated in dozens of journalistic missions in Greece and abroad.

Spiros Papaefthimiou

Dr. Spiros Papaefthimiou received his bachelor diploma in Physics (1995), MSc in Environmental Sciences (1997) and PhD specializing in smart energy saving devices for buildings (2001), all from Department of Physics at the University of Patras. He is currently Associate Professor in Energy Management Systems and Energy Efficiency Technologies, in the School of Production Engineering and Management at the Technical University of Crete in Greece. He is specialized in energy efficiency issues, energy saving applications and renewables' technologies. His research interests include experimental preparation and characterization of energy saving devices, technology of "smart" materials for energy applications, study of advanced solar collectors, study of photovoltaics, energy characterization of building structural elements, environmental analysis of systems, maritime emissions modeling, Life Cycle Assessment & Eco-Efficiency analysis. He has published more than 40 papers in international journals and has presented papers to numerous international energy conferences and acted as referee for international journals in the area of Renewables and Energy efficiency applications. He is the President of the Hellenic Association for Energy Economics and member in various professional and academic associations.

Dimitris Pefanis

Dimitrios Pefanis is the General manager of insider.gr, the award winning financial website, which was launched in December 2015 and attracts more than 1,3m unique users on a monthly basis. He is the former director of in.gr, the leading Greek website as well as a financial Reporter at TA NEA Newspaper and editor of N-Digital Technical Supplement. He studied Communications and Mass Media at Panteion University (BA) and New Media Journalism (MA) at Emerson College in Boston, MA. In 2013 he received the Citi Journalistic Excellence Award in Greece for financial reporting and is experienced in banking, bonds, stocks and general financials. He is also a Lecturer, teaching Social Media Marketing and Content Marketing at Hellenic American Union and has attended numerous conferences in Europe on New Media, Online Business Development.

Max Pyziur

Max Pyziur is EPRINC's Director for Downstream, Transportation Fuels, and Natural Gas Projects.

At EPRINC he has written and produced extensive reports on condensates, gasoline blending, the U.S. Renewable Fuel Standard (RFS), California transportation fuel regulations, octane, and prospects for U.S. LNG exports. Previously he has held senior analytical roles at PIRA Energy and CPM Group, both commodities market consultancies. He received his MBA from Washington University in St. Louis, and his BA from St. Louis University.

Konstantinos Sfetsioris

Konstantinos Sfetsioris is a Project Development Manager in Hellenic Association of Energy & Economics. He holds an MSc in Mechanical Engineering with a postgraduate degree in Energy Production and Management from NTUA. From 2011 and for 9 years he worked as a Research Associate at the Centre for Research and Technology, Hellas / Chemical Processes and Energy Resources Institute (CERTH / IDEP). He has participated in a number of European and National Research Projects on the reduction of environmental footprint, the development of LNG supply chain in maritime transport and energy production and the development of innovative applications of fuel cell systems. Since 2019, he has been an Advisor to the Secretary General of Energy & Mineral Resources at the Ministry of Environment and Energy, with active participation in the preparation of the legislative framework for e-mobility and the Committee for the Just Transition Plan in the lignite areas. Since December 2020 he is a Full Member of the Committee for the drafting of the National Hydrogen Strategy.

Nikos Tsafos

Nikos Tsafos is the James R. Schlesinger Chair in Energy and Geopolitics with the Energy Security and Climate Change Program at the Center for Strategic and International Studies (CSIS). In this role, he oversees work on managing the geopolitics of energy and climate change, advancing industrial policies for clean energy, ensuring a just transition for workers and communities, and equipping U.S. foreign policy and the multilateral system to deal with climate change and the energy transition. Nikos has written extensively on the geopolitics of energy and natural gas; the political economy of hydrocarbon states; European climate policy; sustainable cities and mobility; the pace and trajectory of the energy transition; and the geopolitics of energy in the Arctic, Europe, the eastern Mediterranean, and Southeast Asia. Before CSIS, Nikos worked for over a decade as a consultant and advised companies and governments in over 30 countries on some of the world's most complex energy projects. From 2016 to 2019, he also taught a class on natural gas at the Johns Hopkins School of Advanced International Studies (SAIS). Nikos has testified before Congress, and his views are often found in media outlets like the New York Times, the Financial Times, Bloomberg, and elsewhere. He has written for Foreign Affairs, Foreign Policy, the National Interest, and others, and he is the author of Beyond Debt: The Greek Crisis in Context (CreateSpace, 2013). He holds a BA in international relations and economics with a minor in statistics from Boston University and an MA in international relations from Johns Hopkins SAIS.

Thanos Zarogiannis

Thanos Zarogiannis has significant experience in the field of e-mobility. As an Advisor to the Secretary General of Energy at the Greek Ministry of Environment & Energy, he contributed to achieving key milestones for the e-mobility sector in Greece, such as the adoption of an e-mobility law and the launch of a subsidy scheme for the purchase of electric vehicles. Previously, he has worked in the Innovation team of the leading Electricity Network Operator in the UK. He has also worked in the product development team of a UK based electric vehicle charge point manufacturer and operator, acquired by EDF. He holds a Diploma in Electrical and Computer Engineering from National Technical University of Athens and an MSc in Sustainable Energy from Technical University of Denmark, with specialization in Electric Energy Systems.

ANNEX I

Symposium's Agenda

28th September - 1st October 2021
Theoxenia Palace Hotel, Kifisia, Greece

AGENDA

– 6TH HAEE –

ENERGY TRANSITION SYMPOSIUM

"Looking ahead with optimism, beyond the Covid era"

6TH HAEE

ENERGY TRANSITION SYMPOSIUM

ORGANISED BY

HAEE HELLENIC ASSOCIATION *for* ENERGY ECONOMICS

WWW.HAEE.GR

UNDER THE AUSPICES OF

HELLENIC REPUBLIC
MINISTRY OF
DEVELOPMENT AND INVESTMENTS

HELLENIC REPUBLIC
MINISTRY OF INFRASTRUCTURE AND TRANSPORT

HELLENIC REPUBLIC
MINISTRY OF FOREIGN AFFAIRS

MINISTRY OF
ENVIRONMENT
& ENERGY

DAY 1 – Adonis Room
Tuesday, September 28, 2021

09.25-09.30 **WELCOME ADDRESS**

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

09.30-10.15 **OPENING KEYNOTE ADDRESS AND DISCUSSION**

***Kostas Skrekas**, Minister of Environment and Energy, Hellenic Republic*

Towards a Green Energy Transition in discussion with:

Andreas Shiamishis, CEO, Hellenic Petroleum S.A.

Moderator: **Kostas Andriosopoulos**, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

10.15-11.00 **GREEK ENERGY MARKET DEVELOPMENTS**

Peti Perka, Member of Parliament Florina; Deputy Head of Environment & Energy Sector, SYRIZA
Giorgos Arvanitidis, Member of Parliament Thessaloniki B; Director of Environment and Energy Sector, KIN.AL.

Moderator: **Spiros Papaefthimiou,** Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

11.00-11.15 *Coffee Break*

11.15-12.15 **REGIONAL COUPLING: THE ROLE OF POWER EXCHANGES IN SE EUROPE**

George Ioannou, CEO, Energy Exchange Group
Konstantin Konstantinov, CEO, Independent Bulgarian Energy Exchange (digital)
Miloš Mladenović, Managing Director, SEEPEX (digital)
Septimiu Rusu, Development Manager, Romanian Commodities Exchange (digital)

Moderator: **Victor Grigorescu**, Former Minister of Energy, Romania (digital)

12.15-13.15 **ENERGY TRANSITION AND SUSTAINABILITY CHALLENGES**
POWERED BY GAIA

Maria Christantoni, Sustainability Officer, Hellenic Republic Asset Development Fund
Theodora Antonakaki, Director of Climate Change and Sustainability Centre, Bank of Greece (digital)
Pantelis Capros, Professor of Energy Finance, National Technical University of Athens (digital)
Edmond Airantzis, co-Founder, New Energy Partners
Haris Doukas, Associate Professor, School of Electrical and Computer Engineering, National

Technical University of Athens (NTUA); General Secretary, HELORS

Moderator: **José Maillet**, Head of Gaia, Audencia Business School (digital)

13.15-13.30 **HAEE ANNUAL AWARD CEREMONY**

13.30-15.00 *Lunch*

15.00-16.30 **THE FUTURE OF THE GREEK RES MARKET**

Yiannis Yiarentis, President and CEO, DAPEEP
Giorgos Filiopoulos, CEO, Enterprise Greece (digital)
Panagiotis Doumas, Director and Member of the Executive Committee, Howden-Matrix
Loukas Lazarakis, General Manager, Head of Energy Unit, Intrakat
Grigoris Marinakis, General Manager, Voltalia Greece
Konstantinos Mavros, CEO, PPC Renewables

Moderator: **Tasos Garis**, Founder and Director, Garis Partners

16.30-17.00 **ACCELERATING THE DECARBONIZATION OF EUROPEAN ISLANDS**

Keynote Address:

***Alexandra Sdoukou**, General Secretary of Energy and Mineral Resources, Hellenic Republic*

In discussion with:

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

17.00-18.00 **ENERGY SECURITY ISSUES IN THE EASTERN MEDITERRANEAN**
POWERED BY ATLANTIC COUNCIL

Keynote Address:

***Geoffrey Pyatt**, US Ambassador to the Hellenic Republic*

Richard Morningstar, Founding Director and Chairman, Global Energy Center at the Atlantic Council; Former US Ambassador to the Rep. of Azerbaijan, Former US Ambassador to the EU (digital)
Samuel Furfari, Professor of the geopolitics of energy, Free University of Brussels
Aristofanis Stefatos, CEO, Hellenic Hydrocarbon Resources Management S.A.
Lucian Pugliaresi, President, Energy Policy Research Foundation (EPRINC)

Moderator: **Nikos Tsafos**, James R. Schlesinger Chair for Energy and Geopolitics, CSIS (digital)

DAY 2 – Adonis Room
Wednesday, September 29, 2021

09.30-09.45 **COMBATING CLIMATE CHANGE IN THE AGRICULTURAL SECTOR – EUROPEAN GREEN DEAL AND NATIONAL POLICIES**

Keynote address:

Spilios Livanos, *Minister of Rural Development and Food*

09.45-10.30 **RESPONDING TO CLIMATE CHANGE: THE ROLE OF LOCAL GOVERNMENT**

Giorgos Patoulis, Governor of Attica Region
Konstantinos Gioutikas, Vice-Governor of Development and Environment, Central Macedonia Region (digital)
Dimitris Papastergiou, President, Central Union of Municipalities in Greece (KEDE); Mayor of Trikala Municipality, Hellenic Republic (digital)

Moderator: **George Kremlis**, Principal Advisor to the Greek Prime Minister on Energy, Climate and Circular Economy Issues; President, International "Circular Clima Institute" of the European Public Law Organization (digital)

10.30-10.50 **THE TRANSFORMATION OF THE GREEK DISTRIBUTION SYSTEM OPERATOR**

Anastasios Manos, *CEO, Hellenic Electricity Distribution Network Operator*

Moderator: **Thodoris Panagoulis**, Editor in Chief, energypress.gr

10.50-11.10 *Coffee Break*

11.10-12.00 **EU GREEN DEAL AND THE FIT FOR 55 PACKAGE**

Keynote Address:

Enrique Rubio Viguera, *Spanish Ambassador to the Hellenic Republic*

Rabia Ferroukhi, Director, Knowledge, Policy and Finance Centre, IRENA (digital)
Andrew Scorer, Lead Freight Analyst, S&P Global Platts (digital)
Michael Schmela, Executive Advisor and Head of Market Intelligence, SolarPower Europe (digital)

In discussion with:
Nektaria Karakatsani, Advisor to the Minister of Environment and Energy, Hellenic Republic

12.00-12.45 **REGULATORY DEVELOPMENTS IN SUPPORT OF THE ENERGY TRANSITION**

Athanasios Dagoumas, President, Hellenic Regulatory Authority for Energy
Andreas Poullikkas, Chairman, Cyprus Energy Regulatory Authority

In discussion with:
Jean-Michel Glachant, Director, Florence School of Regulation; Holder of the Loyola de Palacio Chair (digital)

12.45-14.00 *Lunch*

14.00-15.00 **ADDRESSING THE EFFECTS OF CLIMATE CHANGE GLOBALLY**
POWERED BY CIRCULAR CLIMA INSTITUTE - EPLO

Keynote address:

***Konstantinos Aravossis**, General Secretary of Natural Environment and Water, Ministry of Environment and Energy, Hellenic Republic*

Ricardo Raineri, Professor at Pontificia Universidad Católica of Chile, Former Energy Minister of Chile; Member of the WG on Energy Transition, UN DESA (digital)
Anastasios Tosios, Deputy CEO, EYDAP
Agis Papadopoulos, Chairman of the Board, EYATH; Professor, Aristotle University of Thessaloniki

In discussion with:

George Kremlis, Principal Advisor to the Greek Prime Minister on Energy, Climate and Circular Economy Issues; President, International "Circular Clima Institute" of the European Public Law Organization (digital)

15.00-15.20 **EU ENERGY TAX REFORM**

Keynote address:

***Gerassimos Thomas**, Director General Taxation and Customs Union, European Commission* (digital)

In discussion with:

Kyriaki Kosmidou, Professor in Banking Finance, Aristotle University of Thessaloniki; Vice-President, Hellenic Association for Energy Economics

15.20-15.50 *Coffee Break*

15.50-16.50 **GREEK PRIVATIZATION SUCCESS STORIES**

Giannis Klavdianos, CFO, Coordinating Director of Accounting & Finance (digital)
Harry Damaskos, Principal, European Bank for Reconstruction and Development (digital)
Despina Tomadaki, Senior Loan Officer, European Investment Bank

Moderator: **Thomas Lamnidis**, Managing Director, Lamnidis Law; Principal and Legal Advisor, Savvy Business sLTD

16.50-18.00 **DECARBONIZATION AND SMARTIFICATION OF ISLANDS**
POWERED BY IANOS PROJECT

Nuno Marinho, Head of RES Integration and Flexibilty, NEW R&D - Centre for New Energy Technologies, EDP – Energias de Portugal, Coordinator of IANOS project (digital)
Spyros Economou, President of the BoD, CRES
George Kavvouras, General Manager, Omexom/Vinci Energies Hellas
Vassilis Kalavrouziotis, Head of Software Development & Energy Management, Eunice Energy Group

Nikos Chatziargyriou, Professor, National Technical University of Athens; Past Chairman and CEO, HEDNO (digital)

Moderator: **Pierre-Jean Cherret**, VP New Business & Innovation, Items International (digital)

DAY 3 – Adonis Room
Thursday, September 30, 2021

09.30-10.15 **ENERGY TRANSITION - A KEY TO FOSTERING INVESTMENTS**

Keynote address:

***Adonis Georgiadis**, Minister of Development and Investments, Hellenic Republic*

Aristotelis Chantavas, Head of Europe Area, Enel Green Power; President, SolarPower Europe
Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

Moderator: **Haris Floudopoulos**, Journalist, capital.gr

10.15-11.15 **INVESTMENTS IN THE GREEK NATURAL GAS SECTOR**

Maria Rita Galli, CEO, Hellenic Gas Transmission System Operator S.A.
Konstantinos Eleftheriadis, Partner, Energy Industry Leader, Deloitte
Nikolaos Koutsogiannis, Advisor to the BoD, HENGAS S.A.

Moderator: **Dimitris Pefanis**, Director of Financial and Business Content, DPG Digital Media

11.15-11.30 **STRATEGIC RELATIONSHIPS FOR CLIMATE ACTION AND ENERGY SECURITY IN THE EASTERN MEDITERRANEAN**

***David Livingston**, Senior Advisor, US Department of State* (digital)

In discussion with:

Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

11.30-11.45 *Coffee Break*

11.45-13.00 **HYDROGEN AND RENEWABLE GASES: CHALLENGES AND OPPORTUNITIES**

Constantinos Papalucas, Energy Expert, Coordinator of the National Hydrogen Committee (digital)
George Kasapides, Regional Governor of Western Macedonia, Hellenic Republic (digital)
Matteo Mazzoni, Head of Market Strategy, Snam, main Shareholder of Senfluga (digital)
Gulmira Rzayeva, Research Associate, Oxford Institute for Energy Studies; Founder and Managing Director, Eurasia Analytics
Dimitrios Kardomateas, Representative of the Chairman of the JTDP Steering Committee

Moderator: **Konstantinos Sfetsioris**, Energy Specialist; Member of the National Hydrogen Energy Committee

13.00-14.15 *Lunch*

14.15-15.45 **RECENT DEVELOPMENTS IN GAS MARKETS**

POWERED BY GLOBAL GAS CENTRE

Opening address:

René Bautz, *Chairman, Global Gas Centre; CEO, Gaznat S.A.*

Symeon Kassianides, Founder, Chairman and CEO, Hyperion Systems Engineering Group; Chairman, Natural Gas Public Company of Cyprus
Amir Foster, Executive Director, Association of Oil and Gas Exploration Industries in Israel
Thierry Bros, Vice President Research, Tellurian
Panayiotis Mitrou, Global Gas Segment Manager, Marine & Offshore, Lloyd's Register (digital)

Moderator: **Naji Abi-Aad**, Advisor, Global Gas Centre; Senior Consultant Gas Centre

15.45-16.15 *Coffee Break*

16.15-17.30 **MONITORING METHANE FROM SPACE: TECHNOLOGY OVERVIEW AND IMPLICATIONS FOR THE GAS MARKET**

POWERED BY GLOBAL GAS CENTRE

Christian Lelong, Director of Natural Resources, Kayrros

Intervention by:

Maria Spyraki, Member of the European Parliament, Nea Dimokratia Party (digital)
Konstantin Romanov, Head of Division, Gazprom (digital)

Moderator: **Eleni Charisi**, Natural Gas Market Reporter, Argus Media

17.30-18.15 **ESG CRITERIA: THE FUTURE AND SOCIALLY RESPONSIBLE INVESTMENTS**

Mamadou-Abou Sarr, President & Chief Executive Officer at V-Square Quantitative Management (digital)
Antonis Mountouris, Group HSE & Sustainable Development Manager, HEL.PE.
Kostas Andriosopoulos, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

In discussion with:

Faidra Mavrogiorgi, Journalist and Owner ESG stories

DAY 4 – Adonis Room
Friday, October 1, 2021

09.30-10.15 **GREEN INFRASTRUCTURE: THE PATH TO SUSTAINABLE GROWTH AND A CLIMATE-NEUTRAL ECONOMY**

Opening Keynote Address:

***Kostas Ach. Karamanlis**, Minister of Infrastructure and Transport, Hellenic Republic*

***Matthew Lodge**, UK Ambassador to the Hellenic Republic*

In discussion with:

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

10.15-11.15 **E-MOBILITY AT THE FOREFRONT OF GREEN DEVELOPMENT**

Kyriakos Kofinas, General Director of e-mobility, PPC (digital)
Elias Petris, Strategy and Business Development Manager, NRG
Vasilis Georgiou, Managing Director, Protasis
Panagiotis Ekaterinidis, Marketing Manager, Citroen, DS Automobiles (digital)

Moderator: **Thanos Zarogiannis**, Electric Vehicles Charging Specialist, Advisor on Electromobility

11.15-11.45 *Coffee Break*

11.45-12.45 **THE ROLE OF POWER PURCHASE AGREEMENTS IN THE TARGET MODEL**

Athanasios Cholevas, Head Global Market Solutions, Corporate Transaction Banking, National Bank of Greece
Christos Georgopoulos, CEO, Inaccess
Guillaume Dupret, Energy Market Director, Akuo Energy
Vasilis Machias, Country Manager Greece, Axpo Solutions
Tasos Athanasopoulos, President and CEO, Enerdia S.A. (digital)

Moderator: **Kostas Andriosopoulos**, Professor of Energy Economics, Audencia Business School; Chairman, Board of Energy Transition of HAEE; President, Energy Committee of AmCham

12.45-13.45 **NEW TECHNOLOGIES AND INNOVATION ADVANCEMENTS IN THE ENERGY MARKETS**
POWERED BY ENERGY DELTA INSTITUTE

Marcel Kramer, Energy and Infrastructure Consultant; President, Energy Delta Institute (digital)
Spyros Kiartzis, Manager, New Technologies and Alternative Energy Sources, HEL.PE.
Maher Chebbo, Chair, European ETIP Digital Energy Group and Digital Batteries Task Force (digital)
Gianfranco Scalabrini, Partner, 3H Partners, Professor of Energy Markets, Luiss Guido Carli

Moderator: **Miguel Palacios**, Academic Dean Executive Education, ESCP Europe Business School (digital)

13.45-15.15 *Lunch*

15.15-16.00 **SMALL SCALE RES AND OFF-SHORE WIND POTENTIAL FOR GREECE**

Panagiotis Papastamatiou, Director, ENTEKA; CEO, Hellenic Wind Energy Association
Konstantinos Tomaras, General Director, Spyropoulos S.A.

Moderator: **Nikos Frydas**, Principal, Energy Advisory, Grant Thornton S.A.

16.00-17.15 **ACCELERATING THE CLEAN ENERGY TRANSITION ON ISLANDS**
POWERED BY NESOI EUROPEAN ISLANDS FACILITY

Andrea Martinez, Deputy Managing Director, Sinloc (digital)
Panagiotis Grammelis, Director of Research, Chemical Process and Energy Resources Institute, Centre for Research and Technology Hellas
Vasilis Roussakis, Deputy Mayor of Economic Growth, Municipality of Chalki (digital)

Moderator: **George Moutzorogeorgos**, Energy Specialist, Advisor to the Secretary General of Energy and Mineral Resources

17.15-18.15 **THE ROLE OF GEOPOLITICS AND ENERGY TRANSITION IN SE EUROPE**
POWERED BY EPRINC

Olga Khakova, Deputy Director for Flagship Convenings and Global Engagement, Global Energy Center, Atlantic Council (digital)
Nicolò Sartori, Senior Researcher, Enel Foundation (digital)
Theodoros Tsakiris, Associate Professor of Geopolitics and Energy Policy, University of Nicosia Business School (digital)

Moderator: **Max Pyziur**, Director - Downstream, Transportation Fuels, & Natural Gas Projects Energy Policy Research Foundation, Inc. (EPRINC) (digital)

18.15-18.30 **CLOSING REMARKS**

Keynote Address:

***James Smith**, President, International Association for Energy Economics (IAEE); Editor, The Energy Journal; Professor Emeritus, Southern Methodist University* (digital)

In discussion with:

Spiros Papaefthimiou, Chairman, Hellenic Association for Energy Economics (HAEE); Assoc. Professor in Energy Management Systems and Energy Efficiency Technologies, Technical University of Crete

DAY 2 – Virtual Room
Wednesday, September 29, 2021

18.00-19.30 **Session Chair: Dimitra Koumparou**

Climate Change Adaptation Measures and Strategies for Electric Grid Resilience Enhancement: Impact Assessment and Lessons Learnt from the Recent Extreme Weather Event "Medea"

Authors: Aikaterini Gkika, Efstratios Zacharis, Dimitrios Skikos, Dimitrios Lagos
Presenter: Aikaterini Gkika

Geothermal Hybrid. Energy Production Using Deep Drilling for Electricity and Green Hydrogen Production

Author: Achilles Kanellopoulos
Presenter: Achilles Kanellopoulos

Assessment of an existing gas pipeline to be retrofitted to hydrogen transport – material evaluations

Authors: Alessandro Terenzi, Enrico Torselletti, Daniele Scarsciafratte, Domenico Tomassini
Presenter: Enriquo Torselleti

Accelerating the transformation of the Greek energy system through green hydrogen's penetration in the energy mix: A multicriteria-based power generation schedule

Authors: Diamantis Koutsandreas, Ioannis Pappis, Georgios Trachanas, Alexandros Nikas, Haris Doukas

Presenter: Diamantis Koutsandreas

Culture and energy transition

Authors: D. Koumparou, E. Zervas

Presenter: Dimitra Koumparou

DAY 3 – Virtual Room

Thursday, September 30, 2021

18.15-19.45 **Session Chair: Filippos Ioannidis**

Comparative analysis between different approaches for calculating on-board passenger ship's emissions and fuel-energy consumption based on operational data

Authors: Emmanouil Doundoulakis, Spiros Papaefthimiou

Presenter: Emmanouil Doundoulakis

Environmental impact of new Directives, Regulations and Covid-19 restrictions in the shipping sector: the case study of passenger ferries and cruise vessels in the region of Crete

Authors: Emmanouil Doundoulakis, Ioannis Sitzimis

Presenter: Emmanouil Doundoulakis

Advanced control systems and sensors based on Internet of Things (IoT) technologies for smart greenhouses

Authors: Evangelos Ntousakis, Kostantinos Loukakis, Spiros Papaefthimiou

Presenter: Evangelos Ntousakis

Development of Intelligent and Energy-autonomous Greenhouse using innovative technologies to improve productivity and product quality (IEnGreen)

Authors: Kostantinos Loukakis, Vangelis Dimitriou, George Papadakis, Spiros Papaefthimiou, Manolis Souliotis

Presenter: Konstantinos Loukakis

Save Energy Checker Tool (SECT)

Authors: Maria Milousi, George Georgiadis, Dimitris Ziouzios, Andreas Koskeris, Manolis Souliotis

Presenter: Maria Milousi

End of Symposium

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ΔΑΠΕΕΠ

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PUBLIC GAS
DISTRIBUTION NETWORKS

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EDATHESS
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THESSALONIKI - THESSALIA S.A.

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HELLENIC PETROLEUM

Founded in 1998, HELLENIC PETROLEUM is one of the leading energy groups in South East Europe, with activities and presence in six countries. Its shares are primarily listed on the Athens Exchange (ATHEX: ELPE) with a secondary listing on the London Stock exchange (LSE: HLPD), while its two bond issues are listed on the Luxemburg Stock Exchange.

Refining is the Group's core business, accounting for 75% of total assets, owning three of the four refineries in Greece, of total capacity of 340 kbpd, with a 65% share of the Greek wholesale oil products market.

The Group is the domestic ground fuels marketing leader, with a retail network of c.1,700 petrol stations throughout Greece as well as LPG, industrial, aviation and marine fuels and lubricants businesses. It also owns a network of over 300 petrol stations in Cyprus, Serbia, Bulgaria, Montenegro and FYROM.

The Group's E&P activities are focused in Greece in various offshore and onshore areas mainly in Western Greece and west of Crete. HELLENIC PETROLEUM is the sole petrochemicals producer in Greece with domestic market share exceeding 50% and exports c. 65% of sales. It is also active in the power sector through ELPEDISON, in renewables as well as in natural gas through 35% participation in DEPA Group.

E-mail: info@helpe.gr
Website: www.helpe.gr

GOLD SPONSOR

Howden Matrix is the largest insurance & reinsurance broker in Greece, with more than 750 Corporate, Industrial and Financial Lines clients and more than €16 million broking premium (2020). Our services include Specialty Lines, Advisory Services, Risk Management and Treaty & Facultative Reinsurance.

Founded in 2003, Howden Matrix became a Lloyd's broker in 2012 and in April 2020 joined the Howden Broking Group, the leading independent broker with $10 billion broking premium and a business model that enables innovation and strong sustainable growth year on year.

We are an experienced and innovative broker with more than 95 in-house experts covering all fields of Corporate and Industrial insurance/reinsurance from our offices in Athens, Thessaloniki and Crete as well as a representative office in Ioannina (Western Greece).

Howden Matrix Group has established companies in Cyprus and South Africa, while through Howden One Network we reach clients in over 90 territories and more than 15,000 professionals operating under one set of standards.

Industries serviced

Construction & Infrastructure, Energy, Financial Institutions, Hospitals & Clinics, Manufacturing, Marine, Public Sector, Professional Services, Technology, Tourism & Entertainment, Aviation, Aquaculture, Motor Fleets, Insurance Companies, Auxiliary Funds.

What we offer

- Competitive premium options that are, as importantly, realistic to achieve in this current setting.
- A re-designed placement structure that maximises reinsurer participation without jeopardising cover or price.
- A global service team that comprises of key individuals both locally and internationally with an in-depth knowledge of your exposures and experience in the handling of specialty corporations of this nature. Unlike some of our competitors we are one company and one team, guaranteeing our placement strategy is based around your needs and nothing else.
- A comprehensive risk-engineering programme provided by our own in-house Risk Engineering Division, with engineers who have both expertise and market recognition.
- A claims team embedded alongside our broking division with recognised success in collecting claims.
- A broking partner who can offer the best of both worlds – the creativity, flexibility and swift decision making of a boutique specialist insurance broker with the global leverage of a major international insurance corporation.

GOLD SPONSOR

About Huawei

Founded in 1987, Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. We have more than 197,000 employees, and we operate in more than 170 countries and regions, serving more than three billion people around the world.

Our vision and mission is to bring digital to every person, home and organization for a fully connected, intelligent world. To this end, we will drive ubiquitous connectivity and promote equal access to networks; bring cloud and artificial intelligence to all four corners of the earth to provide superior computing power where you need it, when you need it; build digital platforms to help all industries and organizations become more agile, efficient, and dynamic; redefine user experience with AI, making it more personalized for people in all aspects of their life, whether they're at home, in the office, or on the go.

About Huawei FusionSolar

Huawei offers leading Smart PV solutions harnessing more than 30 years of expertise in digital information technology. By integrating AI and Cloud, Huawei further incorporates many latest ICT technologies with PV for optimal power generation, thus making the solar power plant to be Highly Efficient, Safe & Reliable with Smart O&M and Grid Supporting capabilities and builds the foundation for solar to become the main energy source. For solar energy users, Huawei launched advanced solution for C&I and residential customers based on the 'Optimal Electricity Cost and Active Safety' concept. By improving the utilization of solar power, Huawei has helped to power millions of residents and hundreds of industries globally.

Huawei will continue to innovate and enable renewable energy to empower each individual, home, and organization.

For more information, please visit the official website of Huawei or the below links:

www.linkedin.com/company/Huawei

GOLD SPONSOR

Vinci – Energies

As a major player in a constantly changing world, VINCI Energies works at the crossroads of society's most important issues of today and tomorrow. Such as the growing demand for energy and transport, optimisation of industrial processes, improvement of energy performance, and changes in demand in the telecommunications sector, among others. In all of these areas, our business units know how to combine their different fields of expertise to provide solutions that meet market demands.

VINCI Energies delivers a customised solution for each individual project, from the smallest to the most complex, in order to meet our customers' challenges in terms of performance, reliability and safety in our four main areas of expertise: electricity, HVAC, mechanical engineering and information and communications technologies (ICT).

With their agile organizational structure, VINCI Energies business units work in the following four families of business activities throughout the life of the projects:

- Project design / Engineering
- Implementation / Integration
- Maintenance
- Operation / Facility management

SILVER SPONSOR

Akuo Energy is a French multinational company, based in Paris, active in the renewable energy sector worldwide. It operates in 18 countries and has been present in Greece since 2018. Akuo Energy develops, manufactures and operates RES projects with major technologies such as wind, photovoltaic, hydroelectric as well as biomass projects. So far the company has invested more than € 2.5 billion in RES projects worldwide. Its potential includes 1.3GW projects under construction, financing and construction as well as 2.13GW projects under development. Akuo Energy's presence in Greece signals the company's strong interest in the entire Balkan region as it has already completed significant investments in the area.

SILVER SPONSOR

PPC is the leading Greek electric utility, with activities in electricity generation, distribution network operation and supply of electricity to end consumers.
It is the largest power generation company in Greece with a total capacity of 11 GW including thermal, hydro and RES power plants. It is the owner of the single electricity distribution network in Greece with a Regulated Asset Base of c. € 3 bn, which is being operated by its subsidiary HEDNO S.A., and the leading electricity supply provider in the country, servicing c. 6 m customers.
PPC is re-inventing itself in order to be aligned with the energy transition through the implementation of its strategic priorities by (i) proceeding to the decarbonization of its business through accelerated lignite phase out plan and a ramp-up of Renewables investments, (ii) focusing on digitalization and operational efficiency applying new technologies across all business activities and (iii) pursuing areas of additional growth through customer centricity undertaking at the same time a leading role in the development of e-mobility in Greece.
PPC was founded in 1950 and is listed on the Athens Stock Exchange since 2001.
PPC Group total annual revenues amount to c. € 4.6 bn and total assets to € 13.7 bn, having approximately 13.8k employees.

SILVER SPONSOR

ENERDIA, as one of the leading technical companies in the Energy market, provides comprehensive and high quality services in Engineering, Procurement, Construction and Operation & Maintenance of RES Projects with emphasis on increasing the Return on Investment of our projects.
We are today the fastest growing company in Greek RES Market. With significant experience and a portfolio of EPC & O&M of PV stations, wind farms, and substations, we have built over 41MW in the last 5 years, while maintaining over 60MW of RES projects.

SILVER SPONSOR

Hellenic Energy Exchange S.A. (HEnEx) is part of the Energy Exchange Group (EnEx group) and was founded on 18 June 2018 as a spin-off from the electricity market branch of LAGIE S.A.. Building upon experience gained over more than a decade, HEnEx has been designated by the Greek Regulatory Authority for Energy as the Nominated Electricity Market Operator (NEMO) and is operating the Greek day-ahead market and has also been approved by the Hellenic Capital Market Commission as an administrator of the Energy Derivatives Market of Law 4425/2016. Currently, HEnEx is working the transformation of the model of the day-ahead market, on the creation of an intraday electricity market and of a gas market. HEnEx is also responsible for organising and operating Greek environmental markets. Its subsidiary, EnEx Clearing House S.A. (EnExClear), is providing clearing and settlement services for HEnEx's spot electricity markets and for the Balancing Market of the TSO (ADMIE).
HEnEx is committed to providing high quality, transparent, and non-discriminatory services to all market participants, working towards the EU's target model and coupling its market with neighbouring countries. To that end, HEnEx has become a full member of the Price Coupling of Regions initiative.»

SILVER SPONSOR

HEDNO: Connecting every corner of Greece through energy

HEDNO was established in 2012 after the spin-off of the Distribution Segment of PPC S.A. Today it is a 100% subsidiary of PPC S.A., but organizationally and functionally independent Company.
Through the Medium and Low Voltage networks, HEDNO delivers electricity to 7.5 million customers, while the Company manages the High Voltage networks in Attiki and in the Non-Interconnected islands. In terms of number of customers served and the total length of the network lines, 240.000 km-nearly six times the earth's perimeter- HEDNO is one of the largest Distribution Companies in the EU.
HEDNO employs about 6,000 individuals, who are allocated throughout the country.
The fundamental task of HEDNO, is to ensure the efficient operation, maintenance and development of the country's distribution network, the management of the Non-Interconnected islands electricity systems and to provide non-discriminatory access to the Network, for all energy consumers, dispersed generators and electricity suppliers.

SILVER SPONSOR

HENGAS is the newest player in the gas distribution market and comes with dynamics to open up new roads in energy and bring gas to the remote areas of Greek region. The main goal of HENGAS is to be a subversive, safe and reliable player in the gas market and therefore relies on the successful course of EDIL HELLAS, which during the years of crisis has achieved significant growth rates with increasing turnover and profitability, but also increasing its staff. HENGAS utilizes years of know-how in the implementation of successful gas infrastructure projects, enabling households to reduce their energy costs in a particularly difficult economic period and companies to ensure much lower operating costs and therefore to increase their competitiveness Having received from the Energy Regulatory Authority all the necessary authorization, HENGAS starts the construction of gas distribution networks within May 2021. The HENGAS networks will initially supply nine cities (Tripoli, Corinth, Megalopoli, Deskati, Polygyros, Polykastro, Skydra, Edessa and Naoussa), while the integration of other cities throughout Greece is included in its development planning.

SILVER SPONSOR

HHRM
HELLENIC HYDROCARBON RESOURCES MANAGEMENT

Founded in 2011 with the Greek state as its sole shareholder, Hellenic Hydrocarbon Resources Management (HHRM SA) manages national interests regarding the exploration, research, and production of hydrocarbons. The company also works methodically to accelerate the development and monetization of Greece's upstream hydrocarbon industry, with a particular focus on natural gas, in view of the significant and positive impacts the industry could have on Greece's economic and social development.
The Greek government appointed a new Board of Directors and CEO to HHRM in the summer of 2020. As a result, the company's management consists of a distinguished team of cross-functional and cross-sectorial professionals with decades of private sector expertise in upstream oil and gas development, mid-stream/ pipeline developments, offshore health and safety, finance, and law with international experience in countries such as Norway, the United Kingdom, Cyprus, the Netherlands and, of course, Greece.
Driven by the belief that the world needs to urgently transition to a sustainable carbon-neutral economy, and bearing in mind the pivotal role of natural gas as a bridging fuel, HHRM's management established a new vision for the company focused on being an enabler of Greece's energy transition goals.

SILVER SPONSOR

intrakat

Established in 1987, Intrakat is a key member of Intracom Holdings, a leading Group of multinational high-tech companies. The company is listed in the Athens Stock Exchange since 2001, ranks among the top 5 Greek constructions groups and delivers high end products in an integrated portfolio of activities, including Infrastructure Public Projects, PPPs – Concessions, RES – environmental & Real estate development.

Intrakat has international established operations in 6 countries of East and Southeast Europe and 35 years of accumulated experience with a successful presence in the constructions market and an extensive network of 9 entities (subsidiaries and branches).

https://www.intrakat.gr/en

SILVER SPONSOR

NATIONAL BANK OF GREECE

National Bank of Greece was established in 1841 and today leads one of the largest financial groups in the country with a business presence in 8 countries. Apart from NBG, the Group runs 2 commercial banks and has a workforce of 9,566 employees.
It has a wide domestic distribution network of 418 units and 1,488 ATMs and also runs a network of 82 banking units abroad (data as of 30.06.2020).
The Bank's broad customer base, respected brand name, adequate liquidity, and strong market share in deposits reflect the long-standing relationship of trust it enjoys with its clientele.
NBG plays a leading part in the energy transformation of the country, by supporting major infrastructure projects and holding a significant share in the sector financing.
The Bank is a frontline player in Greece's drive for economic growth and development, and is committed to backing the country's potential as an energy hub for the European continent.

SILVER SPONSOR

ΔΕΗ PPC Renewables

PPC Renewables SA (PPCR), is a wholly-owned subsidiary of the Public Power Corporation SA (PPC) Greece's largest power generation company. In 2006, PPCR inherited all Renewable Energy Source (RES) relates activities (wind, small hydroelectric, solar and geothermal) from PPC, including all its technological innovation, know-how and expertise in the field of power generation.

PPCR is the only company in Greece active on all forms of Renewable Energy Sources, while targeting through a combination of organic growth and strategic partnerships o further expand its portfolio in innovative technologies such as storage, offshore wind farms and floating PVs.

The company owns 34 wind farms, 18 small hydro, 28 photovoltaic power plants and 1 hybrid power plant with a total installed capacity of ca. 207 MW and holds a significant position in the Greek renewable energy market aiming to be a driver in the transformation currently ongoing in the country. PPCR has also a RES target of 1.5GW by 2023 based on a portfolio at different development stages.

With sustainable development as our guideline, our philosophy is to create Shared Value by giving back to the local communities and the environment proactively beyond conventional obligations. Sustainable development and business planning in alignment pave the strategic path to our quest to lead the energy transformation in Greece.

SILVER SPONSOR

Senfluga

SILVER SPONSOR

SPYROPOULOS SA

SPYROPOULOS SA is a commercial - engineering company that offers complete turn key solutions in renewable energy installations including all Development – Engineering – Procurement – Construction Services.
The company was founded in 2004 as a construction company and has a portfolio of 35 MW installed PV plants, over 150MW under Development and is currently responsible for the electromechanical maintenance over 150 MW plants as well as for panel cleaning and weed management of over 500MW.
SPYROPOULOS SA has developed a unique technical branch network in Greece, operating six branches, one in Kato Achaia which is the headquarters of the company and five more, one in Thebes, one in Ioannina, Kalamata, Xanthi, Larissa, while there is provision for further expansion of the network to other key locations in Greece.
The company is also active in the fields of construction, renovations and maintenance of commercial and industrial buildings and also in the field of electro-mechanical installations and maintenance, covering the entire range of works needed to achieve the best result.

CONTRIBUTOR

Citroën has been established in 1919 by André Citroën. Citroën has been creating cars, technologies, and mobility solutions to meet society's changing needs. A brand characterized by boldness and innovation, Citroën places peace of mind and well-being at the heart of its customer experience and offers a wide range of models, from the distinctive Ami, an electric vehicle designed for the city, to saloons, SUVs and commercial vehicles, most of which are available in electric or rechargeable hybrid versions. Citroën is a pioneer in services and the attention paid to its private and business customers. It has a presence in 101 countries and a network of 6,200 sales and service outlets around the world.

Citroën – Inspired by You

The signature of the brand, "Inspired by You" condenses the philosophy of Citroën, that is based on the passion for designing and manufacturing technological solutions and applications that provide tangible benefits to the consumers. The broad range of Citroën models focus on the needs and expectations of the users, providing integrated solutions that stand out for their boldness and usability.

AIGLON S.A. - was founded in 1965 by George and Theodora Syngelidis and since then has been the official importer-distributor of Peugeot, Citroën and DS Automobiles cars in Greece. In order to provide the best possible service to its customers, by offering products with excellent quality services, AIGLON S.A. follows a very dynamic course. With a widely developed network of authorized dealers, AIGLON S.A. grants the security of a responsible customer support during -and more importantly - after the purchase of a vehicle. Alongside with the retail sales via the authorized dealer network, AIGLON S.A. has developed a strong presence in the fleet market and the public sector too. The three brands operate through a network 85 sales and service points nationwide in Greece and enjoy one of the highest market shares in Europe.

CONTRIBUTOR

The Renewable Energy Sources Operator and Guarantees of Origin (DAPEEP S.A.) operates the RES and the High Efficiency Electricity and Heat Cogeneration (SITHYA) of the National Interconnected System, as well as the Guarantees of Origins for the energy produced by RES and SITHYA. DAPEEP is responsible for auctioning the pollution rights in Greece, while at the same time it operates as a Cumulative Representation Body of the Last Shelter (FOSETEK) of RES producers.
DAPEEP is the successor of the Electricity Market Officer (LAGIE S.A.) and it is created to meet the modern challenges in the field of RES, while it is the largest shareholder in the Hellenic Energy Exchange (HEnEx) and the second largest seller after PPC S.A. Electricity Market operated by the HEnEx.

CONTRIBUTOR

Public Gas Distribution Networks S.A (DEDA) was founded in 2017 with the only shareholder being DEPA Infrastructure S.A. DEDA's mission is the construction, operation, and management of natural gas distribution networks in seven Regions of Greece. This unique infrastructure improves life quality and contributes to economic growth. DEDA is all about sustainability and local communities; this is why it constructs and operates networks according to strict safety protocols and best international practices.

CONTRIBUTOR

Deloitte Greece is a member of one of the world's largest professional services networks, Deloitte Touche Tohmatsu since 1975. With offices in Athens, Thessaloniki and Heraklion and over 1,700 professionals, we combine an unmatched breadth and depth of capabilities in audit and assurance, consulting, financial advisory, risk advisory, tax and legal.
Operating as a true multidisciplinary model we collaborate across businesses to solve the most challenging issues of our clients. We work with clients in every sector of the Greek economy to deliver innovative solutions using the latest tools and technologies.

Our people are unified by a collaborative culture guiding them to lead the profession, to serve with integrity, to take care of each other and to foster inclusion. They enjoy an environment of continuous learning and opportunities, and are dedicated to making a positive impact in their communities.

CONTRIBUTOR

DEPA Commercial is a modern and competitive company, with a substantial contribution to the growth of the Greek economy. The business plan it implements, integrates the ESG criteria, aiming at "green" entrepreneurship.

Via targeted investments, and the use of smart technologies, the company strives to meet the diverse needs of its customers by providing budget- and environmentally friendly natural gas for households, industrial consumers, generators as well as fuel for gas-powered vehicles through Fisikon.

DEPA Commercial, as the coordinator of the European co-financed projects Poseidon Med II and BLUE HUBS, introduces the maritime transport of the Eastern Mediterranean into the LNG era.

The company participates in the new Alexandroupolis LNG Terminal, a crucial project for the security of LNG supply in SE Europe, and in the Greek-Bulgarian gas pipeline IGB.

DEPA Commercial is entering the new era of "clean" energy, by investing in RES and other alternative fuel with a neutral environmental footprint, such as hydrogen and biomethane.

CONTRIBUTOR

δesfa is responsible for the operation, management, utilization and development of the Greek Natural Gas System and its interconnections, in a technically sound and economically efficient way, in order to best serve its Users with safety, reliability and adequacy.
Possessing extensive experience and a highly skilled workforce, δesfa, whose shareholders are, from 2018, 34% the Greek State and 66% Senfluga SA (joint company of Snam, Enagás, Fluxys and Damco), contributes decisively to the security of supply and the diversification of supply sources of Greece and the wider region, while facilitating the development of competition in the Greek energy market.
On the way to a cleaner and more sustainable energy future, δesfa is transformed, with the vision of its further consolidation as a reliable partner in the framework of the ongoing international energy projects in Southeast Europe and beyond. At the same time, δesfa implements a series of significant investments for the upgrade, expansion and interconnection of the National Natural Gas System, with a key role for the smooth energy transition of Greece and the goal of its emergence as an international energy hub.
On a consistent basis, δesfa also implements activities aimed at strengthening its positive social and environmental footprint, consistent in its vision to be a model of business excellence and corporate responsibility in every aspect of its operation.

CONTRIBUTOR

EDA THESSALONIKI -THESSALIA S.A. was established in 2017 and operates as the Natural Gas Distribution Network Operator in the geographical areas of the Regional Unit of Thessaloniki and the Region of Thessaly, as specified in the Natural Gas Distribution (Gov. Gaz. B' 5922/31.12.2018) and the Natural Gas Distribution Network Operation Licenses (Gov. Gaz. B' 5916/31.12.2018), provided for by applicable Law.
The Company operates in full compliance with the legal and regulatory framework, accomplishing all its duties by focusing on Operational Independence. Its duties indicatively include safeguarding the reliability of natural gas infrastructure, ensuring a technically impeccable and efficient network and complying with the technical specifications as well as operation and maintenance requirements, thus achieving high performance goals in the distribution activity.

CONTRIBUTOR

Enel Green Power is the global Enel's Group brand that manages more than 1,200 power plants on five continents and is present with assets in operation or under construction in 21 countries and development activities in a further 6 countries.
It has around 50 GW of installed renewable capacity generated from a mix of resources, including wind, solar, hydroelectric and geothermal. Enel Green Power is playing a fundamental role in the energy transition, as it is one of the world's leading renewable energy companies. Its goal is to accompany the planet into a new era in which everyone has access to sustainable, decarbonized energy. Enel Green Power is present in Greece since 2008 operating 59 plants with 482 MW of installed wind capacity, hydro and solar power. The company incorporates in its strategy and business practices the principles of sustainable development and corporate social responsibility, placing the outmost emphasis on safety at work, as well as contributing to the well-being of its employees and the neighboring local communities. With its international experience, it also develops custom projects to offer companies the best solutions when it comes to energy generated by renewable sources. Clean energy and sustainable projects, competitive costs and tailor-made solutions are the main benefits of the Power Purchase Agreement (PPA), tools capable of building strong, long-lasting partnerships with business and industrial clients.

CONTRIBUTOR

Our existence lays in the scope of being able to offer the opportunity to every citizen to become an independent & autonomous energy "NetProsumer" – a producer & consumer of clean energy, ultimately obtaining total smart energy management & control.

- We are the first Greek Energy Group, to invest in, generate & allocate electricity EXCLUSIVELY from Renewable Energy Sources
- We participate in the front line of the Greek and world green economy
- We implement private investments
- We develop strong national & international technological alliances and partnerships
- We are at the forefront of major energy technological developments and advancements
- We develop innovative and integrated solutions for the production and utilisation of renewables
- We support a wide range of green activities and operate across a wide spectrum of renewable and sustainable projects with energy efficiency stretching along the value chain

As pioneers in clean energy and with a significant position on the international energy map, we make a dynamic contribution in shaping the industry, making solar and wind energy accessible worldwide.

CONTRIBUTOR

EYDAP S.A. is the leading company in the water supply, sewerage and wastewater treatment sector in Greece, covering the needs of more than 40% of the total population of the country. EYDAP supplies Attica with drinking water, the quality of which is ranked among the best in Europe.
EYDAP was founded in 1980 and in January 2000, the Company was listed on the Main Market of the Athens Stock Exchange.
EYDAP, in the field of water supply services, serves approximately 4,400,000 citizens, while in the field of sewerage services, serves approximately 3,500,000 citizens. The Company is constantly investing in new technologies, as well as in new activities in and out of its competence area.
Always focused on the customer and the uninterrupted supply of clean drinking water, but also the protection of the environment, it places special emphasis on its strategy, which incorporates the principles of sustainable development for the benefit of the Company, its shareholders and the society.
EYDAP is the first public company to include in the Sustainable Development Report 2020, the SASB Standards for the water sector, while at the same time it has been included in the ESG index of the Athens Stock Exchange.

CONTRIBUTOR

Established in 2000, with a focus on digital infrastructure management, Inaccess specializes in monitoring and control systems. The company designs and develops state-of-the-art products and solutions for the centralized management, control, and optimization of geographically distributed, large-scale critical assets (Solar, Wind, Batteries, Microgrids, and Telecoms) that provide its customers with invaluable access to data and information, enabling them to maximize the viability and effectiveness of their investments, by offering real-time secure collection and recording of statistical data as well as smart controls and smooth grid integration, customization of SCADA systems, remote plant supervision, control room services, system migration, and retrofits. Today, Inaccess systems manage more than 24GW of PV generation across 2,500 solar plants worldwide. With headquarters in London, UK with US operations in Vermont, regional offices in Europe, India, Australia, Japan, and its R&D center in Greece is one of the leading vendors of converged infrastructure monitoring platforms worldwide.

CONTRIBUTOR

We are innovators building a sustainable world. Invenergy and its affiliated companies develop, own, and operate large-scale sustainable energy generation and storage facilities in the Americas, Europe and Asia. Invenergy's home office is located in Chicago, and it has regional development offices in the United States, Canada, Mexico, Colombia, Japan, Poland, Spain and Scotland. Invenergy has successfully developed more than 29,000 megawatts of projects that are in operation, construction or contracted, including wind, solar, and natural gas power generation facilities as well as advanced energy storage projects.

For more information, please visit www.invenergy.com

CONTRIBUTOR

New Energy Partners (NEP) is a specialist alternative asset manager based in Athens, Greece, registered with the Hellenic Capital Markets Commission.

NEP manages New Energy Capital (NEC), a private closed end fund established under Greek law, under the investor friendly and tax efficient Private Equity Mutual Fund legal structure (AKES).

NEC is backed by the Hellenic Development Bank of Investments (HBDI), under its Debt Fund Facility, as well as by blue-chip private investors consisting of corporates, institutional investors, family offices and the Principals of NEP.

NEP's partners combine a unique blend of long-term experience in Energy, Private Equity and Project Financing. They have purpose built New Energy Capital to offer the opportunity to diverse investors to benefit from the Energy Transition transformation currently under way in Europe and Greece in particular, both through NEC and through co-investments. Investing through NEC removes from investors the need to build up specialized know how, while giving access to three alternative investment strategies.

CONTRIBUTOR

NRG SUPPLY AND TRADING S.A. is an integrated energy supplier that offers energy solutions to domestic, commercial, and industrial customers, while creating economic and social value with consistency and responsibility. The main objective of nrg is to always provide a wide range of integrated and high-quality services to the end consumer.

NRG SUPPLY AND TRADING S.A. has become one of the leading energy traders in the region of Southeast Europe. The company's primary goal is to be ahead of its time, while remaining abreast of the international developments. Having been certified with ISO 9001, is keeping up with the latest developments in the energy market and constantly enhancing the quality of its services, developing high-specification services at the most competitive prices.

nrg started its activity on the energy market in 2012. Today, it is one of the most specialized Electricity Trading companies in the wider Southeast European region and is already one of the leading energy companies in Greece.

CONTRIBUTOR

PROTASIS Engineering & Consulting S.A. , headquartered in Athens / Greece, with a registered company in Dubai / UAE under the name PROTASIS GULF ENGINEERING DMCC, was established in 2002 by experienced engineers in operating the Greek Electricity High Voltage Transmission System of Public Power Corporation (PPC). Since then, PROTASIS has been delivering expert Consulting Services and specialized Systems' Solutions for the safe, reliable and efficient operation of Electrical Energy Networks and Installations.
Specifically, PROTASIS acts as a Power Systems' Consultant and as a Systems' Integrator for Protection, Control, Monitoring (PCM), SCADA, Substation Automation (SAS), Power Management (PMS) and Smart Metering (Head-End/AMR/AMI/MDM) Systems on Power Generation and Supply Networks in different business segments.

CONTRIBUTOR

Fysiko Aerio the Hellenic Energy Company is the energy provider with a legacy of more than 160 years.
It is the oldest gas supply company in Greece and since 2018 the company is also active at the electricity market, providing full natural gas and electric power energy services.
Investing on and utilizing modern technologies, the company is continuously upgrading the customer experience with the ultimate goal to provide a unique ecosystem through services and smart solutions for domestic and business use.
Fysiko Aerio counts more than 500 selling points across Greece and 420,000 households, 9,000 business customers, 200 industrial customers and is constantly creating innovative and personalized services by responding to its customers current needs.

CONTRIBUTOR

Established in 2007, as a 100% subsidiary of the French Multinational Group VOLTALIA SA, VOLTALIA Greece is a power producer and service provider in renewable electricity production.
VOLTALIA Greece undertakes the Licensing Process as well as the Engineering, Procurement, and Construction (EPC) of Turnkey PV Projects.
Strong from its experience in the management of Solar PV Plants, acting as a power producer firstly, the Company provides Operations and Maintenance (O&M) services to third parties' PV Plants in Greece, while offering a wide range of state-of-the-art and innovative services and solutions adapted to the requirements of each client, independently of the type of construction or the capacity of each Project undertaken.
Furthermore, by combining its highly experienced and adequately trained personnel with its in depth understanding of the specialized needs and clear determination of all critical parameters linked to each investment separately, VOLTALIA Greece ensures the optimal effectiveness and performance of the while providing effective solutions for the improvement and potential Upgrade of existing Solar PV Plants by means of Repowering or Retrofitting services.

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