

# **Energy**

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## Greece

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## Overview of the current energy mix, and the place in the market for different energy sources

Lignite has been the backbone of Greece's electricity system for many decades, covering the biggest part of the country's electricity needs. All lignite-powered plants have always been owned by the Public Power Corporation ("PPC"), while no private entity has so far undertaken control over a lignite-fired power plant in Greece. PPC's share in power production currently accounts for approximately 68% of the country's overall production (without taking into consideration the power generated from renewable energy sources, "RES"). Over the past 10 years, the share of lignite in meeting the country's electricity demand has significantly decreased. This decrease has been offset by a similar increase in the shares of RES and hydropower, as well as imports of electricity mainly from Bulgaria and Turkey. Following a long-standing PPC monopoly, since the liberalisation of the retail power supply market in July 2007, customers are free to choose their supplier and suppliers are free to set their prices, with 35 companies currently active in Greece's energy retail sector. Crude oil accounts for approximately half of the country's Total Primary Energy Supply ("TPES") and over half of the total final consumption ("TEC"). Crude oil production in

("TPES") and over half of the total final consumption ("TFC"). Crude oil production in Greece, currently derived from two producing fields in Northern Aegean Sea (Prinos) by a single oil producer, is insignificant compared to the domestic oil consumption.

Being significantly cheaper than oil and more environmentally friendly than any conventional form of energy, natural gas is gradually replacing lignite and oil and is set to play the role of the bridge fuel in the decarbonisation process, eventually giving way to RES production. 2019 saw a record high growth in the national natural gas consumption, which increased by 81% as compared to 2014 and by 9.4% as compared to 2018. This trend, which continues to be the case in 2020 and 2021, shows the rapid penetration of natural gas in the Greek market and its increasing share in the domestic energy mix.

The Greek natural gas demand is fully covered by imported natural gas, which is injected into the National Natural Gas Transmission System ("NNGTS"), either through entry points from Bulgaria and Turkey or through the LNG Facility on Revithoussa island. Upstream gas operations are almost non-existent, as production of natural gas is negligibly small compared to the total consumption.

Generally, to the extent that liquefied natural gas ("LNG") is cheaper than pipeline gas, it contributes to the reduction of the cost of electricity production from natural gas, a drop ultimately reflected in the wholesale prices of electricity. At the same time, LNG provides flexibility and is a means of risk management for gas suppliers, allowing for smoother and more economical pricing for consumers. Based on data published by the National Natural

Gas System Operator (DESFA) S.A. ("**DESFA**"), in the past two years, approximately 50% of the domestically consumed natural gas was imported as LNG and re-gasified through the Revithoussa LNG facility. Overall, the country's natural gas needs are mostly covered by imported natural gas and LNG, primarily from Russia, while other large gas suppliers include Algeria and Turkey.

As part of its "Clean Energy for all Europeans" package, the European Commission has adopted an update of the Renewable Energy Directive for the period 2021–2030 ("RED II"), setting the overall EU target for RES consumption by 2030 to 32% and an energy-efficiency target of at least 32.5%, with an upwards revision clause by 2023. Previously, decarbonisation of the national energy market had been declared a top priority under Law 3851/2010, transposing Directive 2009/28/EU, which set the target of increasing the share of RES in gross final energy consumption to 20%, and in gross energy consumption to 40% by 2020.

In terms of capacity, currently, the operative RES projects account for approximately 8 Gigawatt (GW), with the target to stretch to 13 GW by 2030 and more than 23 GW by 2050. Based on a report published in May 2020 by the RES & Guarantees of Origin Operator ("DAPEEP"), the Greek power production from RES in March 2020 was allocated as follows: (a) wind farms accounted for 52.1% of the installed capacity and 60% of the total power produced; (b) photovoltaic ("PV") parks accounted for 34.5% of the installed capacity and 23% of the total power produced; while (c) hydropower plants accounted for 3.4% of the installed capacity and 5% of the total power produced. Due to the recent investments in natural gas plants and RES stations, as well as the focus on lignite plants decommissioning, generation capacity mix has become more balanced, with lignite, hydro, natural gas and renewables plants, accounting for approximately 21%, 17%, 27% and 35%, respectively, of the total installed capacity of 18.3 GW in the Interconnected System (as of December 2019).

Over the next years, natural gas-fired and renewable capacity are expected to have an increasing share in the generation capacity mix, driven by the planned decommissioning of old lignite and oil-fired units (present in Non-Interconnected System only) and a further build-out of RES plants.

## Changes in the energy situation in the last 12 months which are likely to have an impact on future direction or policy

A landmark development expected to completely transform the Greek energy market was the entry into full operation of the Hellenic Energy Exchange S.A. ("HEnEx") in 2021. The new entity was founded through a spin-off from the electricity market branch of the Electricity Market Operator ("LAGIE") by virtue of Law 4512/2018. The new market replaced the existing model, where the Greek wholesale electricity market was a day-ahead market, organised as a centralised mandatory pool, operated by LAGIE. The establishment and operation of the HenEx, which is owned by the state-controlled DAPEEP, the Athens Exchange Group, the Independent Power Transmission Operator ("IPTO"), the European Bank for Reconstruction and Development ("EBRD"), the Cyprus Stock Exchange and DESFA, is mainly governed by Law 4512/2018. Following the formation of the HenEx, "EnEx Clear", a 100% subsidiary of HenEx was established as the market clearing house.

In light of the above, Law 4512/2018 paved the way for the replacement of the mandatory pool model by a Day-Ahead Market, an Intra-Day Market, a Balancing Market (comprising the Balancing Capacity Market, the Balancing Energy Market and the Imbalances Settlement) and an Energy Derivatives Market. From the contribution of the aforementioned branch to

the new company, it followed that LAGIE is no longer the electricity market operator and the wholesale electricity market as a whole has now been transferred to the HEnEx. In turn, LAGIE, comprising the remaining sectors, was renamed to DAPEEP, assuming the role of the operator of RES producers and guarantees of origin.

Both the Day-Ahead Market (where electricity is traded for physical delivery within the subsequent 24 hours) and Intra-Day Market (transactions for physical delivery of electricity within the same day in order to cover any failures to fulfil deliveries from orders that have been closed over the previous 24 hours through the next day's purchase) are operated in accordance with Decision 1116/13.11.2018 of RAE (the Regulatory Authority for Energy), as amended and currently in force ("Day-Ahead and Intra-day Market Regulation" or the "HEnEx Spot Trading Rulebook"). The Hellenic Capital Market Commission together with RAE are the responsible authorities for the supervision of the Energy Derivatives Market. Therefore, based on the new legal framework, the traded products will be either financially or physically settled. Apart from the Energy Derivatives Market, the market participants will have the option to conclude bilateral energy contracts (Over-the-Counter contracts), which shall be declared to a registration and nomination platform operated by HenEx in order to be submitted as orders in the Day-Ahead Market. As interconnections with neighbouring countries gradually come online, the Day-Ahead Market should also enable market coupling and EU-wide clearing for wholesale electricity.

Since the early stages of the implementation of the EU Target Model in November 2020, market turbulence has led to higher wholesale prices in certain cases. This hike has been passed on to low voltage consumers and medium voltage customers by certain suppliers, while the prices of other suppliers have remained steady, as the latter do not include wholesale market-related clauses into their supply contracts. Interventions have been made by the competent authorities but have yet to fully resolve the issue and offer market stability.

In order to specify the rules of operation of the wholesale energy markets under the EU Target Model in Greece, RAE issued Decisions No. 1008A/2020 and No. 1657/2020, setting a maximum percentage of transactions that may be conducted bilaterally through over-the-counter energy financial instruments with physical delivery. More specifically, according to Article 18, paragraph 6 of Law 4425/2016, as in force, in order to ensure the efficient operation of the electricity markets, a maximum rate of transactions on energy financial instruments per portfolio may be determined. According to the abovementioned RAE's decisions, the bilateral contracts are permitted at up to 20% for suppliers with retail market share exceeding the 4% threshold. This restriction took effect following the commencement of the operation of the Day-Ahead Market, i.e. as of November 1, 2020 and is set to remain in force until December 31, 2021. RAE will re-define the percentages for 2022, taking into consideration the market updates.

As opposed to suppliers, RES producers participating in the HEnEx markets are not bound by such restrictions, although they must take them into consideration when transacting with suppliers through bilateral contracts for the sale of their produced energy. Similarly, in accordance with the applicable regulatory framework, RES producers with effective operating aid agreements or PPAs with DAPEEP are not permitted to enter into bilateral contracts with power suppliers, unless the above contracts have been terminated.

As part of the operating state aid granted to RES producers (please see below in section "Developments in legislation or regulation"), following a pilot tender carried out in 2016, and the state aid clearing of tariff framework, over the last three years (2018, 2019 and 2020), three (3) broader rounds of technology-specific and joint (for PV and wind parks)

capacity tenders have been successfully conducted by RAE, comprising in total 14 separate competitive procedures. During these three (3) years, 687 projects participated in the auctions, with a total capacity of 1,28GW (PV projects) and 1,34GW (wind projects) being awarded FiP contracts. All these auctions resulted in the gradual lowering of the average reference tariffs. In particular, the following capacity auctions took place:

- (a) **July 2018:** three (3) technology-specific capacity auctions were carried out, each for a separate category of RES projects (Category I-PV plants Ppv≤ 1MW, Category II-PV plants 1MW<Ppv≤20MW, Category III-wind plants 3MW<Pwind≤50MW);
- (b) **December 2018:** three (3) technology-specific capacity auctions were carried out, each for a separate category of RES projects (Category I-PV plants Ppv≤ 1MW, Category II-PV plants 1MW<Ppv≤20MW, Category III-wind plants 3MW<Pwind≤50MW);
- (c) April 2019: a joint capacity auction was carried out for wind plants > 50MW, PV plants > 20MW, clusters of wind plants with a common connection point exceeding 50MW, clusters of PV plants with a common connection point exceeding 20MW, clusters of PV and wind plants with a common connection point exceeding 50MW, PV plants benefitting from the fast-track licensing schemes under Laws 3775/2009 and 3894/2010;
- (d) **July 2019:** two (2) technology-specific capacity auctions took place, each for a separate category of RES projects (Category I-PV plants ≤ 20MW, Category II-wind plants ≤ 50MW); and
- (e) December 2019: two (2) technology-specific capacity auctions took place, each for a separate category of RES projects (Category I-PV plants ≤ 20MW, Category II-wind plants ≤ 50MW).

In January 2021, RAE launched the last competitive procedure to take place under the existing framework. More specifically, by virtue of RAE's Decision No. 1648/2020 (Government Gazette B' 5760/2020), a joint competitive bidding procedure was announced for the selection of both PV and wind plants which would qualify to receive operation support scheme. This last online auction took place on 24 May 2021, involving PV stations with an installed capacity of up to 20MW (PPV  $\leq$  20MW) and wind farms with a maximum production capacity of up to 50MW (PWIND  $\leq$  50MW). The maximum auctioned power was set at 350MW. The maximum allowed offer price to be submitted by the producers was set at €53.86/MWh, while the competition threshold was set at 100%; this effectively meant that for the total 350MW capacity to be allocated, all offers submitted should cumulatively account for double the capacity tendered, i.e. 700MW. The participation to the auction of 24 May 2021 was vast, as the bidders applied in total for 1090MW, with the lowest price awarded for a PV plant reaching a historic low of €32,97/MWh, almost 40% below the starting bid price of €53.86/MWh.

The last 12 months have been an extremely active period for PPC, the country's biggest power utility. Following the European Commission's decision of 2018, which found PPC's privileged access to the cheaper lignite to constitute a quasi-monopolistic right which allowed PPC to maintain its dominant position in the Greek wholesale electricity market, thus blocking the entry of new players in breach of the EU Treaties, significant restructuring measures were introduced by Law 4533/2018. Based on this law, PPC was forced to divest from its three biggest lignite-fired plants (in Meliti in North-western Greece and Megalopolis in the country's south), with a combined installed capacity of 900MW, selling the latter to private investors through an international public tender. Following an extension to the country's commitment by Commission's Decision (C) 2019/2748 and two unsuccessful international tenders that took place in 2019, the Government is currently exploring alternative solutions for the lignite phase-out.

In parallel, as of end 2019, the Government has launched and is intensively implementing a rehabilitation programme aimed at improving PPC's finances, which plunged during the country's debt crisis, mainly due to significant amounts of bills left in arrears. Apart from the closing of lignite-powered units, the rescue measures include the sale of a stake in the Hellenic Electricity Distribution Network Operator ("HEDNO"), a 100% PPC subsidiary, passing legislation to release the utility from restrictions placed on state-owned enterprises and expanding PPC's RES portfolio.

In this context, PPC launched an international tender for the sale of a 49% stake in HEDNO, which was conducted in two phases, a first non-binding phase and a second binding offering a submission phase. Following certain delays, interested parties submitted their binding offers on September 3, 2021 attracting considerable international interest with the participation of four reputable investors – the award of the tender is currently pending. As part of HEDNO's part-privatisation, the Government took actions for the transfer to HEDNO of the distribution network, which currently belongs to PPC.

In the investment field, the Government continues its privatisation programme, with the past 12 months seeing the launch of new tenders for the concession or sale of strategic energy assets and corporate portfolios.

A significant development expected to enhance security of supply in the Greek market and improve the management of the natural gas suppliers' portfolios is the ongoing tender for the award to a private investor of the use, development and operation of an underground natural gas storage facility ("UGS") in the South Kavala natural gas reservoir. The HRADF launched an international tender for the concession of the almost depleted South Kavala offshore natural gas field, with three international players expressing their interest in the first phase of the procedure in October 2020.

Law 4602/2019 provided for the split of the Public Gas Corporation's ("DEPA") commercial and infrastructure activities. Subsequently, based on Law 4643/2019, amending Law 4602/2019, DEPA was divided into three separate legal entities: "DEPA Infrastructure S.A.", comprising all the distribution gas activities of DEPA; "DEPA Commercial S.A.", where all DEPA's gas-related activities (both wholesale and retail) are transferred; and "DEPA International S.A." comprising all the international infrastructure projects in which DEPA participates. Under the same law, the sale of HRADF's total shares in DEPA Commercial S.A. and DEPA Infrastructure S.A. was proclaimed, excluding shares of DEPA International S.A. In December 2019, the HRADF published an invitation to submit expressions of interest for the acquisition of 100% of the share capital of DEPA Infrastructure S.A., with six interested parties being prequalified for the binding offers phase, which eventually took place in July 2021. Furthermore, in February 2020, the HRADF launched a second tender for the acquisition of a majority shareholding (65%) in DEPA Commercial, with an option to acquire the total of its issued share capital. The tender for the part-privatisation of DEPA Commercial has been suspended as of April 2021, mainly due to significant litigation against the target company, awaiting resolution during the following months.

An explosion in the Bulgarian natural gas pipeline in July 2020 prompted a supply cut into Greece from the northern route, highlighting the importance of new gas infrastructure, i.e. the Alexandroupolis FSRU (see below in section "Major events or developments") and the South Kavala UGS (see above in this section). This accident did not affect the country's energy supply as the Greek/Turkish entry point remained uninterrupted, while high LNG reserves at the Revithoussa terminal turned out to be crucially vital. Another critical development expected to have a major impact on the future policy of Greek Governments is the escalating

geopolitical instability in the wider region, with the Greek-Turkish tensions jeopardising gas supply from Turkey (one of Greece's key gas import corridors), showcased the need for sufficient gas storage facilities to safeguard the security of supply.

The COVID-19 pandemic has undoubtedly affected every commercial activity worldwide causing the suspension of business activities and projects across all sectors. In the energy sector, oil prices plunged to a record low, while national lockdowns imposed by governments around the globe, including the Greek Government, had a game-changing impact on the power and natural gas levels of demand. In 2020, the energy sector in many jurisdictions was affected by the COVID-19 pandemic and oil price slump, and some of that impact has continued in 2021. In 2020, due to the impact of the COVID-19 pandemic, domestic electricity demand decreased by 6.7% to 54,752 GWh compared with 58,660 GWh in 2019. As part of the Greek Government's efforts to contain the effects of the COVID-19 pandemic, various urgent measures were adopted during the spring of 2020, focusing on (a) granting extensions in any regulatory process related to energy activities, and (b) advancing the digitalisation of natural gas and power supply contracts, with a view to facilitate both customers and suppliers in light of the restrictions during the country's lockdown. Another critical measure adopted by the Greek Government helped companies dealing in the production, transmission and supply of gas and liquid fuels, as well as in the production, distribution, transmission and supply of power and natural gas sectors continue to have access to materials and equipment necessary for their activities.

#### Developments in government policy/strategy/approach

In light of the recent enactment of the "Clean Energy for all Europeans" package, the Greek energy market is on the verge of another fundamental makeover. In early 2020, the Government issued a new National Plan for Energy and Climate ("NPEC"), which forms the Government's new policy aimed at protecting the environment and dealing with climate change. The NPEC sets the following key targets: (a) full decarbonisation by 2028, based on a detailed schedule to be introduced in 2020; (b) power from RES to become the country's main energy source reaching 65% of power production in 2030; and (c) a more ambitious greenhouse gas emission cut target, aimed at reducing the emissions by more than 42% as compared to 1990's emissions and by more than 56% as compared to 2005's emissions. Based on the NPEC, energy efficiency incentives for the energy renovation of public buildings, industrial facilities and residences are to be granted during the period 2020–2021. Furthermore, the NPEC envisages investment of a value up to €43.8 billion in RES, natural gas and electricity transmission and distribution networks, as well as granting of financial incentives for the purchasing of electric vehicles and launching of energy saving programmes by 2030. Particularly as regards the decarbonisation plan, a central priority is to ensure a fair development transition of the lignite areas in Western Macedonia and Megalopolis, which is based on three pillars: employment; protection; compensation of the socio-economic impact of the transition; and energy self-sufficiency of lignite areas. Greece is a pioneer in Europe for the "just transition" plan related to lignite areas, which identifies five development areas including (i) clean energy, (ii) industry, small industry and trade, (iii) smart agricultural production, (iv) sustainable tourism, and (v) technology and education.

The adoption of the recast Electricity Directive (EU) 2019/944, the recast Renewable Energy Directive (EU) 2018/2001, the revised Energy Efficiency Directive (EU) 2018/2002, the new Electricity Regulation 2019/943, the Energy Performance of Buildings Directive 2018/844, as well as the Regulation on governance of the energy union and climate action (Regulation

2018/1999), the Regulation on risk-preparedness in the electricity sector (Regulation 2019/941) and the Regulation on a European Union Agency for the Cooperation of Energy Regulators (Regulation 2019/942) are expected to gradually transform the internal energy market towards a sustainable, low-carbon and environmentally friendly economy.

Directive (EU) 2009/72, as part of the Third Energy Package, first set the groundwork for the restructuring of the electricity market, aiming to establish access to the network for cross-border exchanges in electricity. This initial effort was further elaborated by subsequent Regulations (EU) 713/2009 and 714/2009, introducing the so-called EU Target Model, laying down the major target of the European electricity market integration.

A key component of the European Target Model, as set out in Regulation 2015/1222 ("CACM Regulation"), is the concept of market coupling, which Greece is in the process of setting the ground for, in close cooperation with its neighbouring countries. This effort has started with the establishment of a radically new wholesale market model, aiming to enhance competition and remove significant distortions in the electricity market (see above regarding the establishment of the HEnEx). The Greek electricity market is gradually being coupled with Italy and Bulgaria, as set out in Article 15 (1) of the CACM Regulation in ACER Decision 6/07.11.2016.

In light of the international developments in the energy storage field and, in particular, the enhancement of the relevant technological applications combined with the falling costs of storage equipment and with a view to set the path for the operation of the South Kavala UGS, the Greek Government is expected to introduce a special legal framework regulating energy storage facilities.

A huge milestone in the RES policy of the Government is the adoption of the new Environmental Law (please see below in section "Developments in legislation or regulation"), as part of its broader effort to create a carbon-free community by 2050. The Greek Government is determined to enhance the RES market, particularly by streamlining the licensing process and reducing bureaucracy, as well as excluding large-scale RES projects from mandatory participation in capacity tenders. Further, the Government's short-term energy efficiency plans include the legislative grant of attractive tax incentives for the upgrading of the energy performance of the buildings, aiming to accelerate the rate of building renovation towards more energy-efficient systems, and make new buildings "smarter".

Based on recent statements, in view of the upcoming expiration of the initial term of the RES state-aid scheme, the Greek Government is in the process of adopting a new tariff auctions support scheme, which will extend to 2025 and in the context of which, RES projects with a maximum total capacity of 3GW are expected to be awarded operating aid.

With a view to boost the establishment of hybrid renewable energy systems in locations that are not fitted with an electricity distribution system, such as the non-interconnected islands, the Government has started developing a special legal framework to govern hybrid power and working to introduce specific pricing schemes, which is currently in the process of obtaining clearance from the EU Commission. The creation of a hybrid power market, which is expected to entail the granting of favourable tariffs through competitive procedures, will aim at providing increased system efficiency as well as greater balance in energy supply, resolving the significant power outages issues on the Greek islands.

Another item on the Government's agenda is the sale of a further stake in the IPTO, an entity vested with the ownership and operation of the national power grid. The IPTO, originally established by virtue of Law 4001/2011 as a 100% subsidiary of PPC, was restructured in 2017

based on the Ownership Unbundling model, through the sale of 24% to a strategic investor and the transfer of 25% to a state-owned special purpose vehicle ("SPV"), with the Greek State indirectly retaining 51% of its shares. The further privatisation of the IPTO is expected to secure much-needed funds for the expansion and upgrading of the power grid, facilitating the connectivity of new RES units and ultimately serving the carbon neutrality targets.

Following the unsuccessful tender for the sale of a majority stake in HELPE, which took place in April 2019, the HRADF was assigned with exploring all options available towards proceeding with the transaction, while the discussions between the Greek Government and the institutions are ongoing, aimed at determining the most proper model for HELPE's restructuring. As no conclusion has been reached to date, a tender for the sale of a stake in HELPE does not seem to be in the Government's short-term agenda.

#### Developments in legislation or regulation

Law 4001/2011, transposing Directives 2009/72/EU and 2009/73/EU, is the main piece of legislation currently governing the operation of energy markets in the electricity and natural gas sectors in Greece, including the activities of the production, supply, purchase, transportation and distribution of natural gas and electricity. Its primary objective was the creation of a Single Internal Energy Market, in line with the EU secondary legislation; therefore, its provisions focus on the separation of transmission and distribution activities from generation and supply activities in the electricity and gas sectors. To this end, the same law established a certification process for transmission system operators, and measures for the effective unbundling of the regulated transmission and distribution activities from the competitive production and supply activities.

As anticipated above, until recently, by virtue of Law 4001/2011, the Greek wholesale market model was organised on the basis of a regulated compulsory offer of electricity to a day-ahead market, leading to the centrally organised sale of electricity at a uniform price (System Marginal Price), which reflected the offer of the most expensive unit dispatched. Participants to the mandatory pool were, on the one hand, producers and importers of electricity and, on the other hand, suppliers and exporters of electricity. Imbalances (i.e. deviations from day-ahead schedules) were settled through a distinct mechanism, but there was no balancing market. Clearing of the day-ahead market was performed by the market operator LAGIE, while IPTO was responsible for conducting the real-time dispatch, clearing the imbalances as well as settling payments for ancillary services and several other charges. Since October 2015, LAGIE has been also competent to provide Registered Reporting Mechanism ("RRM") services to the energy market participants of Greece, according to Regulation (EU) No 1227/2011 (REMIT).

Law 4512/2018, in implementation of the CACM Regulation, introduced the new market model to be regulated by the HEnEx and comprising the electricity market, the energy financial market, the natural gas market and the environment market. As already mentioned above, the electricity market is divided into a Day-Ahead Market, an Intra-Day Market, a Balancing Market and an Energy Derivatives Market. The balancing market is operated by IPTO, which is responsible to ensure compliance with Regulation 714/2009 and the Regulation on Wholesale Energy Markets Integrity and Transparency. Transactions involving energy financial means may be concluded bilaterally, while the day-ahead market operates sales through physical delivery, including products purchased on the energy financial means market and other wholesale products sold through physical delivery. Producers are obliged to offer products for the total of their capacity, to the extent such capacity is not booked at the energy

financial market. Please refer to section "Changes in the energy situation in the last 12 months which are likely to have an impact on future direction or policy" above.

The Greek RES market is primarily regulated by Law 3468/2006, which, among others, introduced the first state aid scheme based on a guaranteed FiT system (operating support based on a fixed compensation price), where producers received standard remuneration amounts and, consequently, minimising exposure to the market risk. Law 3468/2006 differentiated between various categories of RES producers and the amount of the remuneration varied depending on whether or not the plants were located in mainland Greece or on the islands, i.e. whether or not they were connected to the mainland grid.

Over the past few years, the country has been undergoing an impressive increase in the share of renewables in the electricity generation, even over-achieving the targets set for solar energy. Following a deadlock in the previously implemented support schemes and after a period of stagnation between 2013 and 2018, the Greece RES market is nowadays booming, particularly as a result of a state aid scheme introduced by Law 4414/2016, aiming to enhance RES investment and align the Greek energy market with the EU targets. Under this RES state aid programme, initially set to run through 2018–2020, qualifying RES projects may be granted 20-year operating aid agreements in the form of feed-in-premiums ("FiP"), i.e. contracts-for-difference ("CfDs") between the market price of electricity and a fixed reference price, which is determined through competitive procedures conducted by RAE, all in replacement of the previous unsuccessful feed-in-tariff ("FiT") system.

Small-scale as well as demonstration projects are exempted from this FiP scheme, in which case standard FiT contracts are entered into with DAPEEP. Based on Law 4643/2019 and in compliance with Regulation (EU) 2019/943, as of January 1, 2020, all RES plants with a capacity equal to or higher than 400kW are only eligible for FiP contracts awarded through bidding procedures, while at the same time undertaking balancing obligations in the HEnEx market (this threshold is expected to be lowered at 200kW in 2026 in compliance with EU legislation).

Law 4602/2019 set a limit on the number of RES projects entering into FiT contracts (i.e. without participating in the competitive auctions) in which a person or legal entity may directly or indirectly participate, provided, however, that the specific RES technology is eligible to participate in the respective competitive auctions, aiming to tackle potential attempts to circumvent the mandatory auctions rule. Please refer to section "Changes in the energy situation in the last 12 months which are likely to have an impact on future direction or policy", where the auctions conducted so far are described.

As of November 1, 2019, RES projects having already entered into FiP contracts became participants of the Day-Ahead Market, either directly or through a RES aggregator ("FOSE") and from the above date onwards they are operating subject to clearance and settlement procedures. RES projects participating in the Day-Ahead Market undertake commitments for the accurate prediction of the declared injected quantity of power, following implementation of the Intra-Day and Balancing markets (having entered into FiP contracts or the FOSEs through which the producers are represented in the electricity wholesale market) have undertaken standard balancing obligations. As of September 2019, DAPEEP was appointed as the last resort RES aggregator offering the RES producers more favourable representation terms until December 31, 2022.

Another drastic measure adopted by the Government in order to alleviate PPC's monopolistic position was the abolishment of the so-called NOME auctions in October 2019. These mandatory capacity auctions (*Nouvelle Organisation du Marché de l'Electricité*) were

introduced by Law 4389/2016, in an effort by the Government to reduce PPC's retail electricity market dominance, aiming to cut down its share from approximately 95% (in 2015) to less than 50% by the end of 2019 (a target set by Law 4336/2015). The NOME auctions mechanism worked as follows: in its capacity as the dominant domestic player in lignite and hydropower production, PPC offered to independent producers cheaper access to these sources through electricity forward products acquired beyond the mandatory pool of the day-ahead wholesale electricity market. However, despite the broad participation of alternative suppliers in the NOME auctions, the benefits for the consumers derived from the NOME mechanism were limited due to the export by the alternative suppliers of a significant quantity of the power acquired from PPC. Although the NOME auctions were initially scheduled to take place by the end of 2020, due to the bad financial situation of PPC and its poor performance over the year 2019, as well as in view of the upcoming replacement of the mandatory pool model by the Target Model market, the Government decided to cancel any future NOME auctions and instead rely upon the new electricity market operated by HEnEx. The New Law 4685/2020 (GG A' 92/7.5.2020), which came into force in May 2020, attempted the fundamental reform of the energy licensing and the regulatory regime, dealing with administrative inefficiencies of the previously applicable rules and providing a safe legal environment for the prospective investors, particularly in the RES sector. The main novelties introduced by Law 4685/2020, which focused on the overhaul of the RES licensing framework, were the below: (a) the RES production licence was replaced by a certificate issued digitally through a fast-track procedure; (b) the duration of the environmental licences were extended from 10 to 15 years, while the deadlines for the issuance of environmental

Another central development was the enactment in July 2020 of Law 4710/2020 introducing for the first time a full-fledged legal framework to govern the Greek e-mobility market. This new law enabled the installation of publicly accessible electric vehicles ("EV") charging stations in the existing fuel stations, in shopping centres, supermarkets, parking lots, as well as in public buildings and along motorways or highways. Further, Law 4710/2020 provided for the establishment of EV charging operators, expected to primarily develop their own recharging stations at new designated locations. The various incentives to be offered under Law 4710/2020 and its implementing acts, including granting of subsidies to private users (indicatively, reduction of VAT for the purchase of EVs), tax benefits, as well as the introduction of traffic privileges for the use of EVs are expected to be instrumental in encouraging drivers to use EVs.

licences were largely shortened; (c) various restrictions for the use of land were wholly or partially lifted; and (d) new deadlines for several milestones of the licensing procedure

Other incentives focusing on the increase of the penetration of renewable energy into the electricity supply mix and the reduction of production from conventional plants, include recent competitive procedures for the development of pilot RES projects at the non-interconnected islands, under an attractive operational support scheme (Article 151 of Law 4495/2017). Further, self-production from PV plants through net-metering was introduced in 2014 and is currently governed by Ministerial Decision 15084/382 (GG B' 759/05.03.2019). Law 4414/2016 (GG A' 149/09.08.2016), extended self-production to additional technologies, namely small wind turbines, biomass/biogas/bio liquid stations, small hydropower stations and cogeneration power plants.

Law 2289/1995, transposing Directive 94/22/EC on the conditions for granting and using authorisations for the prospection, exploration and production of hydrocarbons, constitutes

were set.

the main applicable legislation governing the development of hydrocarbons in Greece. This law was substantially amended by Law 4001/2011, through which new practices were adopted, aimed at creating a more appealing investment climate and to attract serious investments in the oil sector.

Law 4513/2018 set the legal framework for the establishment of Energy Communities, aiming to promote social economy, solidarity, innovation and sustainability in energy, as well as to increase energy efficiency in the final consumption of local communities. A number of financial incentives granted to Energy Communities aim to encourage development of RES and high-efficiency cogeneration of heat and power ("HECHP") plants. According to this law, Energy Communities are incorporated as civil law partnerships by local individuals, public and private law legal entities and/or municipal/regional authorities. Further, Energy Communities may deal in the production, storage, self-consumption, sale of electricity or heating/cooling derived from RES or HECHP within the region of their registered seat. An Energy Community may also take up management of raw materials used in the production of electricity or heating/cooling from biomass, bio-waste, or biofuel, procurement of high-efficiency appliances, installations and electric, natural gas, LNG or biofuel-fuelled vehicles, as well as power and natural gas distribution and supply.

Law 4602/2019, as amended by Law 4643/2019, introduced a special legal framework for geothermal power and provided for the unbundling of the national distribution system, as well as the restructuring of DEPA (please see above in section "Changes in the energy situation in the last 12 months which are likely to have an impact on future direction or policy").

Another significant development in the natural gas field was the establishment of a virtual trading point operating at the NNGTS, which became fully operative as of July 1, 2018. With the activation of the virtual trading point, natural gas traders not involved in physical trading were offered for the first time the possibility to operate in the Greek market, since it is now possible to enter into transactions, irrespective of whether or not they have contracted capacity at entry/exit points. This new operation was introduced by the NNGTS Operation Code (fourth revision), aiming to further increase the liquidity of the Greek natural gas market in compliance with EU Regulation 459/2017 establishing a network code on capacity allocation mechanisms. Furthermore, all interim measures for the implementation of the European Network Code on Gas Balancing have been approved by RAE and have entered into force by virtue of the fourth revision of the Greek Network Code. This is the first and most important step for the adoption of the Gas Target Model, as well as for the achievement of DESFA's strategic objective of creating a regional gas hub in Greece. The next step is the operation of a Trading Platform, where anonymous transactions between gas market participants will take place. These transactions will be used to calculate the marginal prices for the purchase and sale of gas.

Law 4635/2019 "Investing in Greece and other provisions" issued in October 2019 introduced a number of reforms, which are expected to benefit investment in nearly every sector in Greece, including the energy sector. Key amendments of Law 4635/2019 expected to remove existing roadblocks in the development and operation of energy projects include the below: (a) the significant broadening of the beneficial regime enjoyed by investments qualifying as strategic investments under Law 4608/2019; (b) the streamlining of the operation of Enterprise Greece S.A. (the country's investment one-stop-shop); (c) the establishment of the Consolidated Digital Map, a comprehensive data base aimed at removing perennial difficulties associated with land, town planning and special zoning matters; and (d) the development and enhancement of the regulatory framework governing special areas, including designated industrial and business parks.

Law 4819/2021 ("Integrated Framework regarding waste management - Transposition of the Directives 2018/851 and 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste and Directive 94/62/EC on packaging and packaging waste, framework for the Hellenic Recycling Agency, provisions on plastic products, urgent provisions on the protection of the environment, town-planning and energy provisions") imposed certain significant obligations on the developers of early-stage RES and CHP projects, as part of the Government's effort to contain the growing congestion of RES licences and pending applications and, effectively, to limit the number of future producers by testing their financial capacity. Following the enactment of the New Law, in order for RAE to issue a Producer's Certificate or a Special Project Certificate, applicants must submit a Letter of Guarantee equal to €35.000/MW to RAE (RAE Guarantee). The below categories of projects are exempt from the above obligation: (a) stations with a maximum production capacity of up to 1MW; (b) stations that have either been qualified as strategic investments under Laws 3894/2020 and 4608/2019 or in relation to which a relevant application has been filed with Enterprise Greece before July 23, 2021; and (c) stations developed by municipalities, prefectures, foundations, public-benefit institutions (including healthcare facilities and schools but excluding energy communities). An exception is provided for licence holders who have submitted a complete application for the issuance of a Binding Grid Connection Offer to the competent grid operator for the relevant project by 28 February, 2022 at the latest.

The electricity-related legal framework is largely implemented through a number of regulations: the Electricity Market Operation Code (RAE's Decision 56/2012, GG B' 104/31.01.2012); the Power Transmission System Code (RAE's Decision 57/2012, GG B' 103/31.1.2012); the Distribution Network Code (RAE's Decision 395/2016, GG B' 78/20.01.2017); the Non-Interconnected Islands Network Code (RAE's Decision 39/28.1.2014, GG B' 304/11.02.2014, with a second version published in April 2018); the Power Supply Code (Ministerial Decision 29.03.2013, GG B' 832/09.04.2013); the Licensing Regulation for Electricity Supply and Trade (GG B' 2940/05.11.2012); the Balancing Market Regulation (GG B' 5910/31.10.2018 and B 468/18.02.2019); the HEnEx Spot Trading Rulebook (RAE's Decision 1116/13.11.2018, GG B' 5914/31.12.2018); the Balancing Market Clearing Regulation (RAE's Decision 943/2020, GG B' 3076/24.07.2020); and the Regulation on the Energy Derivatives Market, all as in force from time to time.

Likewise, the oil and gas industry is regulated, *inter alia*, by: the NNGTS Code (fifth version thereof approved by RAE's Decision 1035/2020, GG B' 2840/13.07.2020); the Distribution Network Code (RAE's Decision 298/2018, GG B' 1507/02.05.2018); the Natural Gas Licensing Regulation (Ministerial Decision 178065/17.08.2018, GG B' 3430/17.08.2018); the NNGS Users Registry Regulation (Ministerial Decision  $\Delta 1/A/5816/2010$ , GG B' 451/2010); the Tariffs Regulation of NNGTS Basic Operation; the Approval of NNGTS Usage Tariffs; the Natural Gas Distribution Network Metering Regulation (RAE's Decision 235/2019, GG B' 4818/24.12.2019); as well as the Oil Licensing Regulation (Ministerial Decision  $\Delta 2/16570/2005$ , GG B' 1306/2005).

#### Judicial decisions, court judgments, results of public enquiries

The pivotal role of energy has been underlined in the recent case law of the Greek courts, which have linked the right to electricity supply to the fundamental principle of the protection of human dignity, as enshrined in Article 2 of the Greek Constitution. More precisely, the Council of State, through its Decision 1972/2012, declared that cutting off the power supply

to customers who fail to pay the special real estate tax built into the electricity bills (Article 53 par. 11 of Law 4012/2011) deprives customers of a social good and violates human dignity, and is therefore unconstitutional.

A judgment of the Council of State (the supreme administrative court of Greece) issued in 2020 was critical in the formulation of the legal framework governing the Greek retail electricity market and more specifically, the change of power suppliers by the customers. By way of this ruling, the below provisions of Ministerial Decision No. 177367/2016 were annulled: (a) a provision based on which a customer willing to shift to another power supplier could only terminate the existing power supply contract provided that there are no outstanding debts to the existing supplier; or (b) a debt settlement plan has been agreed upon with the existing power supplier. The same Ministerial Decision provided that if the indebted customer failed to make the scheduled settlement payments on the relevant due dates, the previous supplier could request HEDNO to cut-off such customer's power supply, even though a new power supply contract with the new supplier was in place. These provisions were annulled by the Council of State on the grounds that these provisions impose extremely onerous and disproportionate restrictions on customers.

The Greek electricity market suffered a heavy blow in 2012, when two electricity trading companies faced serious economic problems, as a result of which they were unable to repay the due amounts to the electricity producers, which amounted to more than €172,000,000. In response to this breakdown, through its Decisions 851A/2012 and 243/2012, RAE revoked the trading licences of both power suppliers, with a view to secure the supply of electricity to the end users and avoid further implications for the retail electricity market. The exit of two major players from the retail market caused a serious crisis in the national electricity market as a whole and forged the subsequent lack of trust towards independent energy suppliers, at the time posing an additional obstacle to the liberalisation progress of the energy sector.

Central to the dispute resolution mechanisms in the Greek energy sector has been RAE's arbitration ruling No. 1/2013. RAE's permanent arbitration mechanism was established by virtue of Article 37 of Law 4001/2011 as an alternative process for the resolution of disputes arising between persons operating in the energy sector. The above ruling was given on a dispute between Greece's biggest electricity producer and a trading company over the pricing terms, following failure of the parties to come to a mutually acceptable tariff agreement. RAE's permanent arbitration mechanism came under heavy criticism due to the delays in the process, as well as the impartiality problems that arose during the procedure. Since then, said mechanism has not been activated in any other case, while the Government's objective is to enhance its operation, transforming it into a business-friendly tool.

Further, the clearing by the European Commission of the auction scheme for the FiP contracts introduced by Law 4412/2016 (as described above) has played a key role in the recent RES market boom. The EU Commission, through a decision issued in January 2018, found the support scheme to be in line with the EU state aid rules and, in particular, the 2014 Guidelines on State Aid for Environmental Protection and Energy. The Commission found that the support scheme would further EU energy and climate goals whilst preserving competition, resulting in a significant increase in the number of RES plants operating in Greece.

#### Major events or developments

In addition to the significant developments described in the section regarding changes in the energy situation in the last 12 months, the following major events are expected to gradually enhance Greece's position as an energy hub.

The most significant private projects being developed in Greece are the Trans Adriatic Pipeline AG ("TAP"), which will transport natural gas from the Shah Deniz II field in Azerbaijan to Europe, and the Gas Interconnector Greece-Bulgaria ("IGB pipeline"), which will provide a direct link between the national natural gas systems of Greece and Bulgaria, acting as a strategic gas transportation infrastructure and thereby enhancing supply security to Greece. While construction of the IGB Pipeline started in 2019 and is currently ongoing, construction of the TAP is approaching completion.

The Alexandroupolis FSRU, an LNG terminal, construction of which is due to start in 2021, will comprise an offshore floating unit for the reception, storage and re-gasification of LNG and a transmission system shipping natural gas into the NNGTS, thus securing new natural gas quantities for the supply of the Greek and the regional southeastern European markets. Gastrade, the project company, has obtained a third-party access ("TPA") exception, following a market test process carried out in cooperation with RAE. The FRSU project is being developed by the Copelouzos group in association with Gaslog, an international LNG carrier, while Greek gas utility DEPA, its Bulgarian peer Bulgartransgaz, as well as private investors, are also expected to acquire a stake in the project company. The Alexandroupolis FSRU, once completed, will be the second LNG terminal operating in Greece, together with the LNG terminal of Revithoussa island (the latter being part of the NNGTS).

Following their entry into operation, the IGB pipeline and the Alexandroupolis FSRU will be interconnected with the TAP, with all three facilities serving the transportation of Caspian gas to European markets.

Further, the East Med pipeline, one of the most important export projects for Eastern Mediterranean gas and a region at the epicentre of energy developments because of recent years' discoveries, is a 1,900km natural gas pipeline planned to cross the Israeli, Cypriot and Greek EEZ, reach Greece and from there connect to Otranto, Italy, through an underwater pipeline. The EastMed pipeline project is expected to improve Europe's energy security by diversifying its routes and sources and providing direct interconnection to the production fields. The project will also support the economic development of Greece and Cyprus by providing a stable market for gas exports.

Following the substantial transformation of the hydrocarbons legal framework in 2011, new practices were introduced in the upstream oil sector, aiming to create a more appealing investment climate and to attract serious investments both domestic and foreign. Over the past few years, as part of its effort to secure additional revenues, the Greek Government, through the Hellenic Hydrocarbon Resources Management S.A. ("HHRM"), has entered into a number of lease agreements for the development of hydrocarbons at several offshore and onshore blocks (Aitoloakarnania, Ioannina, Arta-Preveza, North-West Peloponnese, Katakolo, Sea of Thrace, West Patraikos Gulf), while during the course of 2018–2019, the HHRM entered into significant lease agreements for the Ionian Sea, South West Crete and West Crete blocks.

The country's gradual decarbonisation target with 2050 being the reference year, has led to a drop in profits for major hydrocarbons players in Greece. Based on a relevant report accompanying HHRM's financial results for 2020, Greece has a 30-year period of opportunity to utilise the country's natural gas resources and generate revenue through efforts that do not contravene the country's ambitious green-energy transition, as well as the added value provided by the role of gas in blue hydrogen production.

February 2021 saw Greece facing a heavy snowfall and extreme weather conditions, triggering severe power outages to more than 70,000 households in Athens and elsewhere

in Greece for a considerable number of days. The severe power failures were attributed to trees laden with heavy snow falling on power lines, as well as to the poor maintenance of the grid infrastructure. In response to this crisis, HEDNO, in its capacity as the operator of the distribution network, will undertake significant cable maintenance and restoration works, while also progressing the transformation of the existing cables into underground systems. Another pending market development is the full roll-out of smart metering systems. Smart metering, which is intended to assist consumers in becoming active participants in the electricity and natural gas supply markets, is a big focus from HEDNO's capital expenditure programme over the coming years. When completed, the programme for the development of smart meters will contribute significantly towards the rational use of energy by final consumers.

The disastrous effects of climate change became broadly evident when Greece suffered extensive wildfires during the biggest part of summer of 2021. The destructive wildfires, which spread across large parts of the country, were comparable to the destruction pales of the summer of 2007, when fires across the Peloponnese and southern Evia burned 670,000 acres of forest and farmland. Across southern Europe and beyond, countries have struggled to respond to wildfires, as decades of underinvestment have withered the state's ability to protect its citizens. In Greece, as elsewhere, to have any chance of mitigating climate catastrophe, the state has pledged to invest in environmental resilience, amid fears that Athens could become an uninhabitable capital city.

The IPTO is in the process of integrating the island of Crete with the Interconnected System. Electricity on Crete was until recently provided by an autonomous electricity system, with power mainly generated by oil-fired plants (with a total capacity of 813MW), together with substantial capacity provided by renewable sources (with a total capacity of 279MW). Crete is expected to be fully integrated in two phases, comprised of the Crete-Peloponnese interconnection, which has been electrified successfully making this project the longest sub-sea alternative current connection in the world, and the connection between Crete and Attica, currently expected to be completed by the end of 2023. Ariadne Interconnection S.A., a SPV established by the IPTO, assigned with the implementation of the Athens-Crete interconnection project, has started the construction of the electricity grid project. Outdated diesel-fuelled power stations operating in Crete need to be phased-out in order to meet the EU environmental standards. Commissioning of the Ariadne interconnection, the largest electricity grid infrastructure project ever developed in the country and one of the longest subsea power grids (328km) to have been so far developed globally, is expected to take place in 2023. Electricity interconnections with the Dodecanese Island complex and the North Aegean islands are planned for 2029 and 2031, respectively. These subsea interconnections will not only contribute to the reliability of the power supply and to the economic growth of the island regions but will, most importantly, help prevent the islands' environmental degradation and enable the injection of increased RES capacity from the islands into the national grid. Based on Articles 106-108 of recent Greek Law 4821/2021, as of August 1, 2021, the ownership of the Crete HV System passed automatically from PPC to IPTO, while the management of the system will pass from HEDNO to IPTO on October 1, 2021. These provisions regulate, among others, the transitional model of the market following the electrification of the Crete-Peloponnese interconnection.

In addition to integrating the Non-Interconnected Islands, the IPTO is also expanding the number of cross border international interconnections. IPTO is already interconnected with Albania, Bulgaria, Italy, North Macedonia, and Turkey and expects to complete a second interconnection with Bulgaria by 2023. This additional cross-border interconnection is

expected to contribute to increased cross-border exchanges, improve the security of electricity exchange between Greece and Bulgaria and accommodate expected future renewable energy generation capacity in North-east Greece.

Other significant market trends and developments include the ongoing interconnection of some of the Non-Interconnected Islands (e.g. Cyclades) with the Interconnected System. In the Non-Interconnected Islands, electricity has historically been generated autonomously or in complexes of adjacent islands. Integrating the Non-Integrated Islands should increase the reliability and security of electricity supply, reduce generation costs, enable grid decongestion and increase opportunities to exploit significant renewable energy capacity.

The picture of the Greek wholesale natural gas market has also changed dramatically over the past couple of years. Until recently, DEPA was the dominant player in the domestic natural gas market. However, over the previous few years, private companies entered the natural gas wholesale market dynamically, with imports of natural gas (including LNG) approaching 20–30% of the total transactions. The opening of the wholesale market, together with the expansion of the sources of LNG origin, are set to enhance competitiveness among gas suppliers. A game-changing development expected to allow Greece to receive larger LNG cargoes was the expansion and upgrading in 2018 of the Revithoussa LNG facility, so far the country's only operative LNG terminal, which is owned and operated by DESFA. The upgrading of its third tank increased the total storage capacity of the terminal by 75% to 225,000 m³ from 130,000 m³, facilitated growth of the gasification rate by 40% at 1,400 m³ per hour from 1,000 m³ per hour, and enabled the docking of larger LNG cargoes. Regarding the technical operation of the terminal, it is worth mentioning that in the first half of 2019, the average gasification increased to 80.99 million kilowatt hours (KWh) per day, from 51.57 KWh in 2017 and 38.05 million KWh in 2018, respectively.

In addition to the above infrastructure projects, the Greek energy market is also undergoing restructuring changes through the privatisation programme implemented by the HRADF. In anticipation of the outcome of the pipeline tenders mentioned above, 2018 saw the successful conclusion of a milestone tender for the part-privatisation of DESFA through the transfer of a 66% stake (31% owned by HRADF and 35% owned by HELPE) to SENFLUGA Energy Infrastructure Holdings S.A. for a total amount of €535 million.

#### Proposals for changes in laws or regulations

The soaring congestion of pending licensing applications before governmental authorities is the biggest challenge faced by both domestic and foreign investors in the Greek energy market. The Greek Government admittedly made a fundamental step towards the digitalisation and simplification of the licensing process in the RES sector by adopting Law 4685/2020, which, as discussed above, focuses on the environmental and power production licences. However, in view of the country's commitment to phase out coal by 2028, the green energy regulatory roadblock must be eliminated with the overhaul of the entire licensing regime, including installation and operation permits. Another pitfall in the RES licensing process is the congestion of the grid, which the Government has pledged to deal with, primarily through regulatory amendments and at a second stage through networks development and enhancement.

In the same context, the Government should drastically reorganise RAE, which, being responsible for a wide spectrum of energy permits and approvals, has often delayed the development of energy projects due to its sluggish pace in reviewing permit applications.

Furthermore, given that the energy system is relying increasingly on renewables, energy storage has a key role to play in the transition towards a carbon-neutral economy, while it is

vital for the energy efficiency in the non-interconnected islands. Although progress has been made on the establishment of an energy storage framework, the Greek Government must establish a support scheme for storage facility developers in order to encourage investment in this sector.

In view of the ever-changing nature of the energy market and the emergence of new technologies, an efficient legal and regulatory framework requires constant improvement and modernisation. New trends such as corporate PPAs, as well as power production by prosumers and energy communities need to be fully embraced by the national legal system. Further, the development of innovative technologies for the production of renewable gas, (including biogas and bio-methane, green hydrogen and synthetic methane produced through the "power-to-gas" method), as well as the growing interest in hybrid plants will inevitably require major regulatory intervention.

Finally, a valuable tool for the heavily regulated energy market and a breakthrough for the field's professionals would undoubtedly be the codification of the legal framework, as well as the issuance of sector-specific guidelines in order to facilitate implementation of law and ultimately accommodate the rapidly growing financial interest.



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