



INTERNATIONAL  
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# **The Energy Policy of Greece and the impact of Russia's Invasion in Ukraine on its Energy Security**

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I hereby declare that the work submitted is mine and that where I have made use of another's work, I have attributed the source(s) according to the Regulations set in the Student's Handbook.

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## **Abstract**

This dissertation was written as part of the Master of Science in Energy Law, Business, Regulation & Policy at the International Hellenic University.

Aim of this dissertation is to present Greece's energy policy and to examine the impact of Russian invasion in Ukraine on its energy security. The energy policy will be presented in a more general way according to the "National Energy and Climate Plan" and the "Long Term Strategy 2050" as issued by the ministry of environment and energy of Greece. Thus, on the one hand, the dissertation highlights the main objectives of the Greek energy policy. On the other hand, it denotes that center of gravity is shifted towards sustainable transition to a climate neutral economy by the year 2050.

Focusing on Greek energy policy, this dissertation examines the potential impact of the Russian invasion in Ukraine, that took place a year ago, on it. It also demonstrates the importance of the trilateral energy cooperation schemes in the Eastern Mediterranean and how this can change the energy landscape in Greece. Incorporating evidence from scientific data concerning energy projects in the area of interest, this study aims at showing the important role assigned to Greece amid this complex energy coincidence for the European continent. Also, Türkiye's reactions to the above planning occupy a significant place in this thesis, as it is a point of friction between parties involved in the energy projects of the region.

The analysis shows that Greece, through its new energy policy is emerging into a key gateway to Southeast Europe concerning natural gas and acquires the necessary prerequisites to become an exporter of clean green energy in the coming years.

Delving deep into energy and geopolitical issues, it concludes that Greece's energy policy is reshaping the challenging energy environment of the Eastern Mediterranean by placing the country at a critical point on the European energy map. Finally, it mitigates any impact of the Russian invasion in Ukraine on its energy security.

To this end, I would like to express my deepest gratitude to my supervisor Dr. Styliani Gerani for the valuable guidance and the enlightening advice throughout this academic journey of the preparation and drafting of my dissertation.

Key words: Energy policy, energy security, trilateral cooperation schemes, clean energy.

Athanasios Gatoudis  
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## Introduction.

The climate crisis is humanity's greatest challenge. In a deeply insecure world, especially after Russia's invasion of Ukraine, with a constantly changing multipolar international system, major problems have come to a head. Among them, are the energy crisis as well as the energy insecurity that many countries, mainly in Europe, are facing today. The climate crisis is often dealt with wishful thinking, without a substantial and deep political approach, on both individual and collective level, which ultimately annuls all the effectiveness of the relative debate. In this complex energy and environmental context, Greece has drawn up an ambitious "National Energy and Climate Plan" (henceforth NECP) in order to prepare the country's gradual transition to a carbon-neutral economy and to participate in the European effort to tackle climate change.

In addition to the NECP, which constitutes the main planning tool of the national energy policy and remains the central strategic plan, Greece developed a Long-Term Strategy (2050)<sup>1</sup>. This is for the Greek government a roadmap for climate and energy issues, in the context of the country's participation in the collective European objective of a successful and sustainable transition to a climate-neutral economy by the year 2050 at European Union level. Greece's strategic pursuit is to participate proportionately in the commitment to a climate-neutral economy and to contribute to the Green Deal promoted by the EU Commission.

In addition to environmental ones, important geopolitical and economic developments are also taking place at a rapid pace that require decisive action. In this context the Hellenic Republic seems to be determined to demonstrate an active presence in the region of its wider strategic interest. For this reason, it has decided to participate actively in tripartite cooperation schemes with its partners in the Eastern Mediterranean for the implementation of energy projects of great importance.

Should these energy projects integrated into a broader planning of the West, will make Greece an energetic and proactive player, which will emerge as a two-way bridge of energy flows, investments and optimal technological applications between the Eastern edge of the Mediterranean and the central European energy market. Therefore, not only any impact of the Russian war on Greece's energy security will be annihilated, but it will also contribute significantly to strengthening that of its neighboring states.

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<sup>1</sup> <https://ypen.gov.gr/energeia/esek/lts/>.

# **CHAPTER 1: The Energy Policy of Greece pursuant to the National Energy and Climate Plan**

## **1.1 Introductory note**

The National Energy and Climate Plan was ratified by the decision no. 4/23.12.2019 of the Governmental Council of Economic Policy (Official Government Gazette of the Hellenic Republic 4893B/2019)<sup>2</sup>. This “national energy and climate plan” (NECP) is Greece’s strategic plan concerning energy and climate issues offering also an ambitious roadmap for the achievement of specific national energy and environmental targets until 2030 in accordance with the European Union’s (henceforth EU) policies. The NECP presents and analyses priorities and policy measures in a wide range of development and economic activities for the benefit of the Greek society thus making it a reference text for the next decade.

The objectives set out in the framework of the national plan are quantified and properly costed while interim milestones have been established which will allow the constant monitoring of the progress towards the goals. The NECP reveals the priorities and the development capabilities of Greece in energy matters; in tackling climate change as well as aspires to become the basic national energy and climate policy shaping tool for the years to come. Greece’s strategic ambition is to ensure that the goals that have been undertaken will play an important role to the necessary energy transition in a way of great efficiency and competitiveness for the national economy.

High priority has also been given to the decisive reduction of greenhouse gas (GHG) emissions in compliance with the relative recommendations issued by the EU Commission and the targets set by the United Nations regarding sustainable development. The Hellenic government is confident that the successful fulfilment of the targets assumed in the NECP will place Greece at the center of the developments of the energy union.

## **1.2 National Objectives and Expectations**

The main national energy and climate goals and priorities set by Greece according to its national plan can be briefly presented as follows:

1. To establish an integrated model of viable and sustainable development in all economic sectors;
2. To carry out a combined effort to combat climate change through the common development of both the energy sector and the environmental protection measures;
3. To choose the proper energy policies for the energy transition pursuant to a cost-benefit relation;

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<sup>2</sup> <https://ypen.gov.gr/wp-content/uploads/2020/11/ΦΕΚ-B-4893.2019.pdf>



4. To improve waste prevention management and recovery applying new technologies of the circular economy;
5. To make Greece a gateway and an energy hub from east to west and from south to north maximizing its own energy security and contributing to the energy security and security of supply of the European Union;
6. To achieve a greater diversification of energy sources and to proceed in modernization and further development of the energy infrastructures and accomplish the energy unification of the islands with the mainland;
7. To build an attractive investment environment based on innovative and new technologies;
8. To establish extroversion and innovation mechanisms that will be capable to create new jobs.

Furthermore, in the context of the national plan the basic quantified objectives for the period until 2030 consist also intermediate objectives for the reduction of GHG emissions until 2050, where Greece targets to be part of the commitment for an EU level climate-neutral economy. In fact, Greece has set the target for a share of energy from renewable energy sources (RES) in gross final consumption of energy to 35% until 2030 while today is approximately at 22%. Especially in the power generation sector, RES will be the basic source of power generation already by the middle of the next decade surpassing as a share 65% of domestic power generation making optimum use of the country's high domestic potential for wind and solar power plants.

Basic tools to reach the target will be the functioning of the new electricity market model, the simplification and acceleration of the licensing process, the digitization of the energy system which is rapidly transforming the energy landscape. This will facilitate the integration of renewables to smart grids and smart-ready buildings along with the further development and expansion of the existing energy infrastructure which will permit the maximum penetration of RES in power generation. Emphasis will also be given to power saving systems, to the progressively increasing electrification and the wide energy coupling of final consumption sectors will allow the highest possible participation of RES to final energy consumption as set by the transposition of Directive 2009/28/EC into the national legislation. Penetration of RES is also promoted in the transportation sector by the use of biofuels according to the same Directive.

A goal of high priority is the termination of the energy isolation of the most Greek islands by connecting them with the mainland. This will lead to the elimination of the cost of the Public Service Obligations (PSOs)<sup>3</sup>. To the rest of the islands will remain disconnected or their connection to the mainland is about to be effectuated in a second phase. The objective is to install innovative hybrid power generation systems with high participation of RES.

Regarding the improvement of energy efficiency, it must be emphasized that it is a key priority and consists the first pylon upon which every policy is planned as it is a necessary condition for the implementation of policies through specific measures in every final consumption sector. The improvement of energy efficiency will lead to

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<sup>3</sup> According to the Electricity Directive one of the main rules for the organization of the sector is the ability of the state members to impose on undertakings operating in the electricity sector Public Service Obligations.

multiple benefits such as: the reduction of GHG; the reduction of energy cost; the improvement of internal comfort conditions and energy saving in buildings and in public space; increase in added value and employment, and improvement of the competitiveness of firms. To attain the target of energy efficiency improvement the Greek government plans to implement a combination of legal interventions and financial tools which will allow further energy saving in order to reduce final energy consumption to the level of 2017 by the year 2030 and to reduce it even more by the year 2040. The performance in the above two indicators which are evaluation indicators for the EU member states will lead to achieve the goal of energy efficiency by 38% according to the methodology for the common European target.

Flagship objective for the NECP is the very ambitious but also “realistic”- according to declarations of the Greek government- program for the drastic and definitive reduction of the share of lignite in electricity production, that is to say that the full delignification of the national energy balance by the year 2028. According to the initial plan of the government all thermal power plants using lignite fuel were about to be withdrawn by the year 2023 until the complete disengagement of the domestic production system the year 2028. To the author’s opinion, how “realistic” this aim is, remains to be seen in the foreseeable future, especially after Russia’s invasion in Ukraine.

In any case, the Greek State focuses on a long-term strategy for a climate-neutral economy looking forward to improving the competitiveness of the national economy and enterprises as well as creating new jobs and enhancing the role of the consumer for the benefit of the whole society.

Concerning the national security target, Greece will proceed to an optimal utilization and use of domestic energy sources. Utilizing internal energy sources is a key objective and pursuit for the development of the national energy system. The situation that has been established since Russia invaded Ukraine forced Greece to change its point of view regarding its energy security and to focus, apart from the optimal utilization of renewables potential for generation and direct disposal and use in final consumption, on the likelihood of the exploration and exploitation of domestic hydrocarbon deposits in both the Ionian sea and southern of Crete. Greece also focuses on reducing the energy dependency rate since it is highly dependent from the imports of oil products and natural gas which together account for more than 66% of gross domestic energy consumption and are almost completely imported from countries outside the European economic area. In quantitative terms, this goal is to further reduce energy dependency from the high average rates observed the last few years and stabilize its rate to 70% and to less than 70% by the year 2030. Potential exploration and exploitation of national hydrocarbon sources would definitively contribute in attaining this vital objective<sup>4</sup>.

Another important target is the interconnection of autonomous island electrical systems. In Greece there are currently 28 autonomous island electric systems after the recent interconnection of Crete and the implementation of the first interconnection phase of the island group of Cyclades the year 2018. These autonomous systems of high operational cost based in most cases on oil-fired power plants do not allow a smooth and optimal power supply of consumers fully and under all circumstances. Their interconnection to the main system will bring multiple benefits to the national

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<sup>4</sup> <https://ypen.gov.gr/wp-content/uploads/2020/11/ΦΕΚ-Β-4893.2019.pdf>.

economy and to the local environment. It will also reduce energy dependency and improve the quality of life providing the same quality of electricity and services to every citizen of the country.

As already exposed above, in cases where the interconnection has been characterized as technically complicated and cost-effective because of the existence of small and isolated islands, innovative energy applications will be installed making use of new technologies transforming them to “smart-islands”. This will be attained by the installation of modern RES units combined with advanced storage technologies. The project of the installation of hybrid RES plants will be promoted and financed either by the private sector or through pilot projects such as that of the conversion of “Ai Stratis” into a “green island” whereas hybrid RES plants are already in operation in the islands of Tilos and Icaria.

Finally, Greece plans to improve electricity interconnectivity which will contribute remarkably to the security of supply and will further consist a key factor in the integration of national electricity markets. In the upcoming years Greece plans to promote new interconnection projects such as a second Greece-Bulgaria interconnection, to upgrade the 150 kV interconnection between Greece and Albania as well as the Greece – Republic of North Macedonia interconnection.

Meanwhile the implementation of the project “EuroAsia” interconnector which will connect Israel with Cyprus and Greece (Crete) has already began. By connecting firstly the branch between Crete and Cyprus via a system of underwater and terrestrial cables 898km long. The leg Crete-Cyprus envisages electricity transmission in both directions with a capacity of 1000 MW in the first phase. Both its length and the laying depth of the underwater cables (up to 3000 meters) are records for a project of its kind. For this specific leg of the project a European funding of 656 million euros through the “Connecting Europe Facility” has been secured. A percentage of the remaining budget will be covered through the regulated charges of domestic consumers, as foreseen by the cross-border cost-sharing agreement (CBCA) between the regulatory authorities of the two states.

At the same time, “ADMIE” (Independent Power Transmission Operator) has submitted a proposal to enter the share capital of “EuroAsia” Interconnector with a percentage of at least 25%<sup>5</sup>. Upon its completion the interconnection will lift the electrical isolation of Cyprus enhancing the island’s power supply capacity but also reducing its environmental footprint. According to the project promoters, by strengthening the share of RES in the mix, savings on consumer bills will amount up to 200 million euros annually. Moreover, the infrastructure of the “EuroAsia” is part of a “new generation” of interconnections centered on Greece, thus strengthening its role as an electricity transit hub in the wider region from the Middle East to the Eastern Europe. Likewise, the interconnection project between Greece and Egypt is, in fact, reserved for the introduction of exclusively green electricity into Europe through Greece.

Greece, by seeking to improve its geopolitical position in the Eastern Mediterranean is deeply concerned by the ongoing energy crisis as a result of Russian invasion in Ukraine. This fact itself made it crystal clear for both Greece and the other EU member states that this energy crisis pinpoints the strategic importance of establishing new energy corridors for the immediate diversification of sources of supply in conjunction

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<sup>5</sup> <https://www.admie.gr/en/nea/deltia-typoy/10-years-ipto-operators-stand-inaugurated-86th-tif>.

with the necessary energy for industries and consumers. At the same time, Europe is firmly oriented towards turning to green energy, since, regardless of the perilous geopolitical situation, everyone now recognizes that environmental politics must remain in the core to protect the environment.

A possible answer to the aforementioned is that the project “GREGY- ELICA interconnector” envisioned and designed by the Elica company of the Kopelouzos Group, which will establish the electrical interconnection of Egypt with Greece<sup>6</sup>. It is certainly a project that has the characteristics of a game changer, as the submarine cable that will connect the two countries is expected to transport 100% green, clean and cheap energy. One third of the energy will be able to be exported to Europe, thus upgrading our country’s position from an importer to an energy exporter. The submarine cable will have a length of 950 kilometers and is expected to transport 3000 MW of “green” electricity generated by 9.6 GW of Renewable Energy Sources which will be built and operated by the Kopelouzos Group in Egypt.

The geopolitical importance of this project is enormous, given that in 2018 the EU decided to promote the “strategic partnership<sup>7</sup>” with Egypt while in April 2021 the European Council confirmed this orientation. Equally important is the huge boost that the project is expected to give to the national economy resulting in the transformation of Greece into not just an energy hub but also into a power that exports clean and cheap energy to Europe. And this is because the interconnection cable with a capacity of 3 GW, the largest in the Mediterranean, will allow Greece to consume 1 GW, export 1 GW to neighboring European countries and the third 1GW will be used in Greece for the production of “green” hydrogen, the largest part of which will also be exported to neighboring European countries.

### 1.3 Policies and Measures

#### 1.3.1 Governance mechanism

The achievement of the objectives set out in NECP until 2030 requires the implementation of a governance mechanism which establishes specific synergies between its cross-sectoral units. The mechanism will ensure the effective implementation of policy measures and the redesign of the existing and the design of new objectives as well. The basic characteristics of the above mechanism are reflected in six main axes of governance policies. These are the following:

1. Single governance framework;
2. Continuity and consistency in the implementation of policy measures by institutional bodies;
3. Monitoring mechanism for the implementation and performance of policies and measures;
4. Strategic reference framework for the design and approval of development programs by network operators and the regulator;
5. Development of financial instruments and programs to achieve the objectives;

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<sup>6</sup> <https://www.copelouzos.gr/en/news/en-elicasa-united-nations-cop27/>.

<sup>7</sup> <https://data.consilium.europa.eu/doc/document/ST-15808-2018-INIT/en/pdf>.

6. Information and training actions for energy transition and tackling climate change;

Key role for the development and implementation of the above governance framework will play the “Government Commission for Energy and Climate” and its supporting bodies which was established and constituted with the issuance of the Ministerial Council Act 31/30.09.2019.

### 1.3.2 Climate and GHG emissions reduction

Greece will adopt policy measures to reduce GHG and pollutant emissions until the year 2030 according to the legal framework of the National Emissions Ceilings (NEC) Directive 2016/2284. These policy measures will engulf eight policy priorities as presented below:

1. Promotion of Renewable Energy Sources;
2. Reduction of emissions from autonomous oil-fired power plants in the islands through their scheduled interconnection with the mainland system;
3. Promoting the use of Natural Gas as an intermediate fuel for the decarbonization of the energy system;
4. Actions for the reduction of emissions in transport sector;
5. Actions for the reduction of fluorinated gas emissions;
6. Actions for the reduction of emissions in agricultural sector.;
7. Strategic plans for the circular economy;
8. Actions encouraging urban, bioclimatic regeneration and smart cities;

The foreseen planned policy measures of regulatory, technical, or economic character will affect either the electricity generation or all other sectors of final consumption. They will also have as an objective the reduction of non – EU ETS greenhouse gas emissions. Moreover, it is crucial to mention that it was the European Council in March 2007 that made a commitment<sup>8</sup> to reduce the overall GHG emissions of the EU by at least below 20% below year 1990 levels by the year 2020. By 2050, global GHG emissions must be reduced by at least 50% below the 1990 levels.<sup>9</sup> The European Environment Agency in its report “Trends and projections in Europe 2021”<sup>10</sup> published the year 2021 estimates that the EU achieved its three 2020 climate and energy targets of reducing greenhouse gas emissions by 20% compared to 1990 levels, increasing the share of renewable energy use to 20%, and improving energy efficiency by 20 %.

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<sup>8</sup> [https://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ec/93135.pdf](https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/93135.pdf).

<sup>9</sup> Theodore C. Panagos, *Handbook of Energy Law*, 2<sup>nd</sup> edition, 2018, p.52.

<sup>10</sup> <https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2021>.

### 1.3.3. Renewable energy sources

Objective of fundamental importance in the NECP is the achievement of the target of a share of RES in gross final energy consumption of at least 35% by the year 2030 from 17% in 2017. Reaching this very ambitious target requires the development of an integrated framework of policies and measures with regulatory, economic and technical dimensions which should be carefully implemented with a specific schedule, so that they can have the optimal performance and allow this promising transition towards RES.

The determination of policy measures for the promotion of RES in the period 2021-2030 aims to cover eleven different policy priorities as presented below:

1. Coverage of domestic electricity consumption mainly from RES;
2. Reform of licensing<sup>11</sup> and spatial planning framework – acceleration and efficiency of licensing;
3. Participation of RES units in the electricity market without granting operating aid;
4. Promoting dispersed RES systems and strengthening the participation of local communities and consumers;
5. Ensuring viability and liquidity of the mechanism for granting operation aid to renewable energy power plants;
6. Further development of energy networks and optimal integration of RES systems;
7. Regulatory obligations of minimum RES participation in meeting energy needs of buildings;
8. Promoting the use of RES systems for covering thermal and cooling needs;
9. Coupling energy sectors in order to promote optimal penetration of RES;
10. Promotion of biofuels in the transport sector;
11. Promotion of electromobility / electrification;

### 1.3.4. Energy efficiency measures<sup>12</sup>

For the substantial improvement of the energy efficiency in the period until 2030 the Greek government focuses mainly in eight policy priorities as seen below:

1. Improvement in energy efficiency of public buildings;
2. Improvement in energy efficiency of private buildings;
3. Improvement in energy efficiency of electricity and gas infrastructures;
4. Promotion of measures for modernizing water / sewage and irrigation infrastructures;
5. Improvement in energy efficiency of the industrial sector;
6. Improvement in energy efficiency of the transport sector;

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<sup>11</sup> The Commission has set itself the objective of simplifying the authorization procedure in two stages.

<sup>12</sup> <https://ypen.gov.gr/wp-content/uploads/2020/11/ΦΕΚ-B-4893.2019.pdf>.

7. Training / informing professionals and consumers on energy efficient equipment and rational use of energy'
8. Promotion of innovative financial tools to leverage private capital and financial sector participation;

### 1.3.5. Energy security.

As “energy security” is considered the uninterrupted availability of energy sources at an affordable price.<sup>13</sup> Energy security is divided in two categories: the long-term energy security which requires energy supply investment plans taking into account the sustainable environmental needs and the short-term energy security which focuses on the availability of the system to react promptly to unexpected changes in the supply – demand balance<sup>14</sup>. Concerning energy security, the states are divided in two main categories: the consumer nations, where the security of supply is the important factor, and the producer nations where the security of demand prevails.

The Greek government has set out four different policy priorities to be covered regarding the country’s energy security. These are:

1. Increasing the diversification of energy sources and supply from third countries;
2. Reduce energy import dependency from third countries and deployment of domestic energy sources;
3. Promoting the role of the country as a regional energy hub;
4. Promotion of systems providing flexibility, storage, and demand response systems and ensuring the country’s power adequacy;
5. Readiness of the country and its relative supportive mechanisms to deal with the unexpected limitation or total interruption of energy supply.

New interconnection projects such as the one with neighboring Bulgaria and the upgrade of the existing ones with Albania and the Republic of North Macedonia will contribute to the security of supply and to achieving the wanted diversification of energy sources. In any case, the increase in capacity depends on the overall configuration of the wider Balkan Transmission system, as determined by ENTSO-E<sup>15</sup>.

Another pillar of great importance for Greece’s energy security is the demand for Liquefied Natural Gas (LNG). LNG can be proved as the appropriate fuel for the country’s transition to a carbon neutral economy since it has a relatively lower environmental impact than other fossil fuels. Its flexibility in use and transportation via LNG carriers many of which are owned by shipping companies of Greek interests, as well as its competitive price, drives Greece to follow current energy trends that want LNG to be the main competitor to Russian natural gas pipelines that supply the European continent.

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<sup>13</sup> The definition is given by the international energy agency (IEA).

<sup>14</sup> Theodore C. Panagos, *Handbook of Energy Law*, 2<sup>nd</sup> edition, 2018, p.57.

<sup>15</sup> ENTSO-E is the European association for the Cooperation of Transmission system operators (TSOs) for electricity.

In that regard, Greece is deeply concerned by the challenges arising from Russia's invasion in Ukraine and Moscow's effort to instrumentalize natural gas exports. In this direction, Greece is promoting a series of projects some of which have been completed already. The aim, to cover not only its own energy security needs but also those of other European States in the wider region. Recently at the Davos global economic forum held in Switzerland ( January 2023) the Greek Prime Minister, Kyriakos Mitsotakis, met with the Moldova's President, Maia Sandu, The Greek PM underlined Greece's invest in the development of infrastructure that will further upgrade its role not only as a hub for the inflow of energy in southern Europe, but also as a pillar for strengthening energy security and uninterrupted supply of the wider region, including Moldova. These investments concern mainly the following projects:

1. Completion and operation of the Trans Adriatic Pipeline<sup>16</sup>;
2. Operation of the Revythousa natural gas terminal station after the second expansion of the storage space. Revythousa is the only natural gas terminal station in South Eastern Europe;
3. Implementation of the gas interconnector with Bulgaria (IGB<sup>17</sup>);
4. Implementation of the Floating Storage Regasification Unit of Alexandroupolis (FSRU);
5. Planning of the interconnector Türkiye- Greece- Italy (ITGI);
6. Preparatory works for the planning of the EAST MED pipeline;
7. Examine and perform an assessment for the suitability of the underground gas storage space in Kavala in the context of enhancing the security of supply;
8. Promotion of the interconnection between Greece and the Republic of North Macedonia.

#### 1.4 Regional Cooperation in drawing the Plan

In this complex framework of international links, the Hellenic Republic has launched a series of regional cooperation schemes with other states such as Israel, Cyprus, Egypt, Italy, Albania, the Republic of North Macedonia, Bulgaria and Türkiye. The main financing tools for the implementation of the above measures include domestic resources, a specific financial instrument under the fourth EU-ETS period and EU funds such as Projects of Common Interest (PCIs). Since the November 19<sup>th</sup>, 2021 the European Commission has adopted a new list (5<sup>th</sup>) of energy projects of common interest<sup>18</sup>. In the relevant list are included some cross-border energy infrastructure projects of great importance aiming to create a more integrated and resilient EU internal energy market respecting EU's energy and climate goals and contributing to the increased renewable energy ambition of the European Green Deal, thus providing safe, affordable and sustainable energy to the European states. Projects included in

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<sup>16</sup> The TAP pipeline has already started its commercial operations in the system crossing Greece, Albania, the Adriatic Sea and Italy since 16 November 2020.

<sup>17</sup> TAP connected to the Interconnector Greece – Bulgaria and started commercial operations the 1<sup>st</sup> October 2022.

<sup>18</sup> [https://energy.ec.europa.eu/system/files/2021-11/fifth\\_pci\\_list\\_19\\_november\\_2021\\_annex.pdf](https://energy.ec.europa.eu/system/files/2021-11/fifth_pci_list_19_november_2021_annex.pdf).



the aforementioned lines and are also directly connected with Greece's energy interests are the following:

1. The Greece – Israel – Cyprus cluster or the “EuroAsia Interconnector” which will connect the three country's electrical grid via the world's longest undersea cable;
2. Terna Energy's project that aims to build a pumped storage hydropower system in central Greece (Amphilochia) which will be in position to store excess electricity from wind, photovoltaic, and thermal power plants;
3. The IGB interconnector (Balkan Gas Hub) from Komotini (Greece) to Stara Zagora (Bulgaria);
4. The construction of the undersea gas storage (UGS) unit in south Kavala region;
5. The potential construction of the East Med gas pipeline which will bring gas from the reserves of eastern Mediterranean to Europe through Greece;
6. The Cyprus gas infrastructure project (Cyprus Gas2EU);

The Copelouzos Group has also submitted a full application<sup>19</sup> for the inclusion of the project of the electrical interconnection between Greece and Egypt (GREGY- Green energy interconnector) in the ten-year development plan for the European energy networks (TYNDP2022). Its inclusion in the TYNDP2022 will be the first step that will unlock the launching process for the inclusion of the project to the next list (6<sup>th</sup>) of PCIs. Since, as already has been mentioned above, this project will transfer 100% clean, green energy produced by RES established in Egypt to the EU via Greece, it is quite possible that the company will achieve the project's inclusion to the next PCI. The expected inclusion will open the door for both its licensing and financing accelerating in this way the construction of this project of high geopolitical importance for Greece. It will also benefit the whole of the EU as it will definitively contribute to its energy security and aid in achieving faster decarbonization and its targets towards a carbon-neutral economy.

## **Chapter 2: The “Long Term Strategy 2050” (LTS)**

### **2.1 A Roadmap for energy and climate issues**

The Long-Term Strategy (2050)<sup>20</sup> is for the Greek government a roadmap for Climate and Energy issues in the context of the country's participation in the collective European objective of a successful and sustainable transition to a climate-neutral economy by the year 2050 at European Union level. Greece's strategic pursuit is to participate proportionately in the commitment to a climate-neutral economy and to contribute to the Green Deal promoted by the EU Commission. By adopting and participating in the European Commission's strategic long-term vision for a

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<sup>19</sup><https://www.copelouzos.gr/en/news/the-process-of-including-the-project-of-the-electrical-interconnection-greece-egypt-in-the-pci-list-has-commenced/>.

<sup>20</sup> <https://ypen.gov.gr/energeia/esek/lts/>.

prosperous, modern, competitive and climate-neutral economy by 2050, Greece is aligning itself with the strategy for climate neutrality, planning the implementation of innovative technological applications while trying to ensure social justice in the context of a just transition. The Long-Term Strategy is obviously developed in addition to the NECP, which constitutes the main planning tool of the national energy policy and remains the central strategic plan on the basis of which specific policy measures are implemented.

In that sense, the long-term strategy has its reference point the year 2030 and presupposes the achievement of the relevant goals of the NECP. The starting point for new policy measures and their implementation is the year 2030 and the planning depends both on the precise energy mix that will have been formed by that time and on the corresponding technical and economic conditions. It should be pointed out that in the year 2030, the Greek energy system will be a completely new system. A radical restructuring of it will have been achieved with an emphasis on RES; on improving energy efficiency; on final use; on energy renovation of a large number of buildings; on development of the energy infrastructure as well as on the decoupling of lignite from the domestic electricity generation system.

However, to the author's opinion, after Russia's invasion in Ukraine and the subsequent consequences of it, the latter seems to be extremely difficult to be effectuated by the year 2030. The Greek Prime Minister has Already announced that the government is proceeding with the adjustment of the delignification plan, stressing that *"in an uncharted time, policy should be flexible without losing its central orientation"* <sup>21</sup>. He also announced the increase in lignite production with a 50% increase in lignite mining as a temporary measure. In this context, the new PPC unit at Ptolemaida 5 will operate using lignite until 2028. Meanwhile, if necessary, the older lignite units at Aghios Dimitrios 5 and Melitis will remain open for longer. This undoubtedly constitutes a derailment from the original plan for the full delignification of the domestic system. Nevertheless, all of Europe's countries have made modifications to their energy policy in order to find intermediate sources of energy to meet their needs and to secure themselves for the worst-case scenario regarding their security of supply.

At any rate, the transition towards a highly decentralized, renewable energy-based generation system, will require a smarter and more flexible system. At all points, this system will have to be based on the participation of consumers; on increased interconnectivity; on the greater involvement of energy storage systems of different size and technologies; on the coupling of the various energy sectors; on demand-side responsiveness and on digitized management. This energy transition will also affect a wider set of national and EU policies aiming to achieve a socially just energy and climate transition and in a cost-effective way for the entire economy and society<sup>22</sup>.

Meanwhile, the Greek government made it clear that a key component in its designations is that the aforementioned transition will be implemented in a socially

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<sup>21</sup> Speaking at the inauguration of the largest photovoltaic park in Greece (Kozani region) with a capacity of 204 megawatts (MW) the 6 April 2022.

<sup>22</sup> Ann Katrin Fleck, Vassilios Anatalitis, *Achieving the objectives of renewable energy policy – Insights from renewable energy auction design in Europe*, Karlsruhe Institute of Technology, 14.11.2022, p4.

fair manner and in a way that will strengthen the competitiveness of the country's economy. It is obvious that Greece as well as the rest of the EU countries are setting their national strategies according to the demands of the European Green Deal, which aims to transform the European economy, while increasing its competitiveness to make the most efficient use of resources and to deploy innovative technologies that can serve as a model for the region and for the whole world. In this context, on July 14<sup>th</sup>, 2022 the EU Commission set forth a new implementation program, called "fit for 55" which aims to achieve a 55% reduction in net GHG emissions.<sup>23</sup>

## 2.2 the Purpose of the Long-Term Strategy for 2050

In the framework of the COP21 climate conference held in Paris in December 2015, the European Union committed to limit GHG emissions to low levels, as needed to keep the increase in the average global temperature below 2 °C above the pre-industrial levels. In this framework, the EU completed in 2019 the adoption of a policy package entitled "Clean energy for all Europeans" in the context of which the NECP for the period up to 2030 was issued. To achieve the goal for 2 °C, the EU has officially adopted a target of reducing GHG emissions by at least 80% till 2050 compared to 1990 levels.

However, the Paris Agreement<sup>24</sup> explicitly states that best efforts must be made to limit global warming to 1,5 °C above pre-industrial levels, recognizing that this will significantly reduce the risks and impacts of climate change. Achieving this goal requires zero GHG emissions immediately after 2050 and in the second half of the 21<sup>st</sup> century. To this end, the European Commission proposed in November 2018 a long-term strategy which includes scenarios aiming to reduce emissions in 2050 by 95% from 1990 levels. In this framework, each member state has to determine at a national level its 2050 target for the reduction of its GHG emissions both in the context of the pursuit of 2 °C and towards climate neutrality of 1,5 °C.

The purpose of the LTS-2050 is to evaluate alternative solutions and transition routes towards an economy that will approach climate neutrality. The purpose of the measures and policies is the drastic reduction of GHG emissions by 2050 and the elaboration of two strategies: one aiming at reducing emissions as required by the 2 °C pursuit, and the second, on climate neutrality aiming at reducing emissions in pursuit of 1,5 °C. All the scenarios included in the LTS-2050 take for granted the achievement of the NECP objectives by the year 2030. They also assume the full implementation of the NECP priorities and policy measures and do not include additional measures for the period 2020-2030.

The year 2030, as the starting point of the energy system for the period 2030-2050, does not determine the policies and measures to achieve the energy and climate goals

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<sup>23</sup> <https://www.consilium.europa.eu/en/press/press-releases/2022/06/29/fit-for-55-council-reaches-general-approaches-relating-to-emissions-reductions-and-removals-and-their-social-impacts/>.

<sup>24</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

of 2050 as long as the NECP goals have been achieved. However, the mix of policy measures and related technologies that ultimately contributed to the achievement of the 2030 targets will be the vehicle for designing new and strengthening the pace of implementation of existing policy measures. In this context, the LTS-2050 does not pre-qualify or exclude technologies and policies. Instead it analyzes the challenges, requirements and possibilities of the energy system than need to be achieved according to the 2050 goals.

## **Chapter 3: The energy policy of Greece in the Eastern Mediterranean**

### **3.1 The role of Greece in the area over time**

Greece's modern presence in the eastern Mediterranean dates back to the 1950s with the resurgence of the Cyprus issue. The beginning of the liberation struggle of EOKA in 1955 and the repressive policy of London brought the eastern Mediterranean to the center of Greek foreign policy. The intercommunal riots of 1963 and the bombing of Tellyria in August 1964 led to the dispatch by the Greek government of the famous "Hellenic Division". The withdrawal from Cyprus immediately after the events of Kofinou, in November 1967, significantly reduced the presence of Athens in the Eastern Mediterranean. The Turkish invasion in July 1974 and the subsequent restoration of the Hellenic Republic dramatically confirmed the inextricable link between Greece and the Eastern Mediterranean.

After the political transition, the governments of Andreas Papandreou invested great political capital in the development of relations with Arab regimes, especially with those of Libya and Syria. In addition, the Greek leadership cultivated close relations with Yasser Arafat and the Palestine Liberation Organization (PLO). It is no coincidence that Athens refused for many years the de jure recognition of the State of Israel. Finally, the Konstantinos Mitsotakis' government proceeded to diplomatic recognition of the Jewish State in 1990.

The outbreak of the "Arab Spring", twenty years later, highlighted the absence of a coherent and structured Greek policy for the Eastern Mediterranean on pre-determined targets. In the author's opinion, this lack of interest in the Arab countries can be explained partly by the one-dimensional Euro-Atlanticism of the Greek foreign policy in the 1990s. Until very recently, the prevailing opinion in Athens was that, apart from the solution of the Cyprus issue, no important Greek interests were at stake in the Eastern Mediterranean. Greece, therefore considered that there was no need to pursue systematically the strengthening of relations with the countries of the region, nor should it intervene in any way in regional events.

On November 27<sup>th</sup>, 2019, Türkiye and the UN-recognized<sup>25</sup> Fayez-al-Sarraj government of Libya<sup>26</sup> signed two memoranda. One concerning the delimitation of the maritime zones between the two countries and a second which deals with the

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<sup>25</sup> [https://unsmil.unmissions.org/sites/default/files/lpdf\\_-\\_roadmap\\_final\\_eng\\_0.pdf](https://unsmil.unmissions.org/sites/default/files/lpdf_-_roadmap_final_eng_0.pdf), "Roadmap for the preparatory phase of a comprehensive solution".

<sup>26</sup> Also known as the "Government of National Accord/GNA".

provision of Turkish military assistance to Libya. The content of the first memorandum which was highly favorable to Türkiye, was largely determined by the dependence of the Sarraj government on Ankara. As one analyst summed it up, “Fayez-al-Sarraj breathes with Turkish lungs”.<sup>27</sup> This comes to remind us emphatically that what happens in the Eastern Mediterranean directly affects the national security of Greece.

This reality is not going to change in the next decades. The Turkish leadership managed to capitalize on its support to Tripoli and surprised Athens in November 2019. The ultimate Turkish objective was to strengthen Türkiye’s negotiating position vis-à-vis Greece, when negotiations on the delimitation of the Greek-Turkish maritime zones begin at some point.

It is more than obvious that Ankara’s legal arguments are unfounded and weak. In the author’s opinion, this is of little importance not only for the present Turkish authoritarian regime but also for any other future Turkish government. This outcome comes from the fact that Türkiye perceives the Eastern Mediterranean as “Lebensraum”, i.e. a territory believed to be necessary for national existence or economic self-sufficiency as well as from its aspirations to revive its Ottoman past.

In this volatile environment of geopolitical instability Athens should find new ways to support its position in the region. It is crucial to establish a new holistic strategy emphasizing on regional security and stability.<sup>28</sup> In view of collaborations on the energy sector, trilateral schemes such as Greece – Cyprus – Israel and Greece – Cyprus – Egypt, already work as a pillar for the regional security architecture. At the same time, Greek diplomacy should work to approach all countries that feel excluded from energy projects in the region, such as Lebanon and Palestine. It should be noted that Israel recently signed a historical agreement with Lebanon over their maritime border that will allow the two countries to begin gas exploration and extraction activities<sup>29</sup>. In the author’s opinion Greek diplomacy shall approach Lebanon and scrutinize the possibility of the latter’s participation in an energy project in the region that will include Israel as well. Apart from its economic importance, this could be a small step towards the recognition of Israel. Besides, it is important to keep in mind that Türkiye is looking for economically weak and, therefore, easily manipulating preys as allies to promote its own interests in the region.

At the same time, Greece, through energy projects can emerge as a valuable security provider that will be in position to protect the European interests in the region. This requires the development of a coherent and well-structured national energy plan and, of course, the development of an ambitious armaments program that will emphasize on aeronautical power in order to protect its energy infrastructure from threats *erga omnes* and mainly from Türkiye. The current Greek government has already proceed to the acquisition of new generation French frigates type Belharra, for the Hellenic Navy while the Greek prime minister announced the initiation of the process to acquire one squadron of F-35 fighters for the Hellenic Air Force.<sup>30</sup> The

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<sup>27</sup> Thanos Ntokos, *Glossary of Greek-Turkish Relations*, Kathimerini, 2020, p.123.

<sup>28</sup> Manos Karagiannis, *Η στρατηγική ανασφάλεια της Τουρκίας στην ανατολική Μεσόγειο*, in Sotiris Ntalis, *Mare Nostrum*, Papazisis, 2020, p. 322.

<sup>29</sup> Yaakov Amidror, Oct.2022, <https://jiss.org.il/en/amidror-the-maritime-border-agreement-with-lebanon/>.

<sup>30</sup> During his statements with the American president in 17.05.2022 for the celebration of 201 years since the Greek revolution, <https://www.liberal.gr/politiki/tha-ekkinisoyme-ti-diadikasia-gia-tin-apoktisi-f35-den-tha-anehtoyme-kamia-parabiasi>.

aforementioned will contribute to the creation of a credible deterrence especially against Türkiye's revisionism. Athens should and must claim for herself the role of a reliable partner in this fragile region.

Meanwhile, European countries recognize that Turkey is behaving aggressively in the Eastern Mediterranean exercising a coercive diplomacy to meet its targets. However, decision makers in Brussels are called upon to take into account multiple factors, including different national interests. Until recently, it was mostly Germany opposing to the construction of a new pipeline in the Eastern Mediterranean because it would be competitive to the Russian Nord Stream II pipeline, which was about to provide Germany with abundant and cheap natural gas. At this point, the author estimates that especially after the devastating earthquakes in Anatolia, the complete isolation of Türkiye would be a harmful development for European interests.

### 3.2 The energy landscape in the Eastern Mediterranean

In the aftermath of the unprovocative Russian invasion in Ukraine, the EU is facing a serious energy crisis which has turned into both a supply crisis and a price crisis. Given that Russia will no longer be an energy security provider for the majority of the E.U. member states, Europe seeks for alternative energy sources in its immediate area. The Eastern Mediterranean EU member states, as Greece and Cyprus, have already worked on energy cooperation schemes and mechanisms concerning either cross-border electricity interconnections or natural gas pipelines.

Regarding electricity, as presented above<sup>31</sup>, Greece, Cyprus and Israel persistently foster the project of the "EuroAsia Interconnector" which will connect the three country's electrical grid via the world's longest undersea cable (2,000MW, 1208km long, at a depth of 3000m). At the same time another tripartite energy cooperation scheme, that of Greece – Cyprus -Egypt has signed an agreement in 2021 in Athens for a project of electricity production from photovoltaic systems in the Egyptian desert and its subsequent transportation to Europe<sup>32</sup>.

Furthermore, Greece and Egypt promote one more project in the area ("GREGY"), as it has been forementioned<sup>33</sup>, that has the characteristics of a game changer, The submarine cable that will connect the two countries is expected to transport 100% green, clean and cheap energy from the El Natrn valley in Egypt directly to the district of Attica in Greece. Despite the fact that this project is going to be implemented entirely by private entities, it is diligently fostered by both the Egyptian and the Greek governments as they consider it a crucial project, capable to contribute in the fulfilling of the twofold goal: firstly, to interrupt Russian natural gas imports and substitute them partly by clean, green electricity and secondly, to upgrade the geopolitical and energy role of the countries in the Eastern Mediterranean. Hence, this "Cable Diplomacy"<sup>34</sup> taking shape in the region with key players Greece, Cyprus ,

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<sup>31</sup> Chapter 1 par.4.

<sup>32</sup> Marika Karagianni, *The energy landscape in Greece and the South-Eastern Mediterranean*, Eliamep Outlook, 30.12.2022.

<sup>33</sup> Chapter 1 par.2.

<sup>34</sup><https://www.energia.gr/article/198665/is-cable-diplomacy-shaping-energy-policy-in-the-mediterranean-middle-east>.

Egypt, Israel and Saudi Arabia (as a third party partner investing in RES and hydrogen production as a future fuel) will contribute to the EU's future energy autonomy and will definitely facilitate the transition to an innovative, green, smart and durable economy.

In this context, the above projects between Greece, Egypt and Saudi Arabia are expected to be promoted in order to take the "final investment decisions" (FID) in 2023 or 2024. Through these projects, apart from Egypt, Greece is also emerging as a regional key actor in the energy sector since all of them are eligible for being co-financed by the EU if they will be characterized as "Project of Common Interest" (PCI)<sup>35</sup>, which is very likely to happen. As a consequence, more investors will be invited to participate making a charm offensive and offering a growing number of financial market products and practices to support the low-carbon transition<sup>36</sup>.

As to natural gas, a fierce debate is raging about its role in EU's energy mix. Not all scholars agree on its role as a bridge fuel for renewable energy and consider it as a hindering factor for the transition towards a carbon-neutral economy. Natural gas is a fossil fuel and its burning produces GHG emissions which are among the principal causes of the global warming. In addition, its extraction and transportation can lead to leakages of methane producing GHG emissions far more dangerous than carbon dioxide (CO<sub>2</sub>). moreover, , proponents of natural gas will argue that it is a more clean and environmental friendly fossil fuel than oil, a lower carbon alternative to coal and the fact that it can be found abundantly in the earth's subsoil, could serve as the ideal fuel to make the highly anticipated transition happen<sup>37</sup>.

In that regard, it should be pinpointed that, it is not in this dissertation's role to examine neither the merits and demerits of natural gas nor if it is a "bridge to nowhere" or it is the ideal fuel to navigate the energy transition. The author's opinion is that it will continue to play a significant role in Europe's energy mix at least until 2050. The high prices of natural gas caused by consecutive lockdowns during the COVID-19 pandemic<sup>38</sup>, the subsequent precarity in energy investments, the Russian invasion in Ukraine as well as EU's rushed and poorly designed decision to steer abruptly and absolutely towards the climate neutrality by 2050, all provoked a spike in natural gas exploration and drilling activity. In this context, the regional "EastMed Gas Forum" (EMGF) is working to implement natural gas exploration and exploitation projects, natural gas and hydrogen pipelines to Europe, as well as the transportation of LNG from existing- or to be constructed- terminals in Egypt and Israel to the European Market mainly through Greece<sup>39</sup>.

Comparing to other countries of the region such as Israel, Egypt and Cyprus which moved fast enough to explore their natural gas resources, Greece stayed behind, but finally decided to step forward by inaugurating a new energy policy after 15 year

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<sup>35</sup> Currently, through PCIs, the EU is financing the "ELMED" Interconnection (600MW) between Italy and Tunisia.

<sup>36</sup><https://www.oecd.org/finance/ESG-investing-and-climate-transition-market-practices-issues-and-policy-considerations.pdf> (2021).

<sup>37</sup> Shawn Olson Hazbun & Hilary Shaffer Boudet, *Natural Gas: Friend or Foe for the environment*, Environmental Sociology, Volume 7, 2021.

<sup>38</sup> APEC Energy working group, *The impact of Covid-19 on oil and gas security*, APEC oil and gas security studies series 18, April 2022.

<sup>39</sup> <https://emgf.org>.

period of inactivity. In 2011, Greece adopted a legislation<sup>40</sup> on the exploration and exploitation of hydrocarbons in its maritime zones in the Ionian sea and the sea South of Crete. The law 4001/2011 -also known as “Maniatis Law”<sup>41</sup>, named after the surname of the competent Minister for the environment who oversaw the legislation- explicitly stipulated that the legal basis for delimitation of maritime zones in areas where no such agreement exists, will be the rule of the median line or the line of equidistance pursuant to the provisions of the UNCLOS treaty (of the Montego Bay 1982) and the relative Act was officially submitted to the UN.

In this context, international tenders were announced for the exploration and collection of seismic data and the potential exploitation of specific offshore fields in the forementioned areas. Since then, developments in this sector were proceeding at slow pace mainly because of the fact that there were no sufficient scientific data to confirm the exaggerated expectations, the price of natural gas in the market was relatively low and the exploration and exploitation projects and surveys require investing enormous amounts of money without guaranteed profit because of geopolitical security concerns in these regions. In addition, successive Greek governments signaled that the country is going to participate actively in the European Green Deal and the European effort to reduce its environmental footprint until 2050, as it can obviously be seen in the NECP issued.

The previous designations were forced to be adapted to change after Russia’s invasion in Ukraine which in combination with the impact of Covid-19 in energy supply demand led to sharply increased natural gas and oil prices. This subsequently led to a spike in exploration projects worldwide. To this day, the majority of rights for the exploration of hydrocarbons in the area South and West of Crete belong to the American ExxonMobil, which is one of the largest publicly traded international oil and natural gas companies. This came up only after the withdrawal of the French Total Energies<sup>42</sup> that occurred last year and resulted in a Consortium of two participants: ExxonMobil which acquires, 70% and HelleniQEnergy (Hellenic Petroleum Holdings S.A. Athex: ELPE) with a participation of 30%.

In September 2022, the Consortium of ExxonMobil- HelleniQEnergy announced a quantitatively and qualitatively upgraded seismic data collection project to investigate the existence of hydrocarbons in the offshore blocks Southwest of Crete (19.870 sq.km) and West of Crete (20.058 sq.km) with an engagement to complete in two years than three, while expecting to have a clear view from the surveys at the end of 2023<sup>43</sup>. Pursuant to the initial plan, the consortium planned to continue with 3D surveys at the last trimester of 2023, but if ExxonMobil, which is the operator of the project, decides to skip the 3D surveys (as it did in Cyprus block-10 that led to the discovery of Glafkos deposit) and proceeds direct to the offshore drilling, this will take place in 2024, instead of 2025<sup>44</sup>.

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<sup>40</sup> Article 156 of Law 4001/2011, <https://www.e-nomothesia.gr/energeia/n-4001-2011.html>.

<sup>41</sup> for more information regarding the delimitation of maritime zones see, *Handbook on the delimitation of maritime boundaries*, UN office of legal affairs, New York, 2000.

<sup>42</sup> TotalEnergies participated initially in the research Consortiums with a percentage of 40%.

<sup>43</sup><https://energypress.eu/tag/total/>.

<sup>44</sup> <https://energypress.eu/exxonmobil-drilling-for-natural-gas-off-crete-could-begin-a-year-earlier/>.



### 3.3 Türkiye's stance towards regional developments

The combination of transnational conflicts, absence of agreements on maritime boundaries and offshore fields with hydrocarbon reserves is usually explosive. In autumn 2011, as the Noble Energy oil company was drilling in the block 12 of the Cypriot EEZ, the tension rose to high levels due to Türkiye's verbal threats and actions in the field. Although for a while the high tones dropped, Türkiye continued its "gunboat diplomacy"<sup>45</sup> regarding Cyprus' attempt to explore the estimated significant natural gas reserves in the Southeast sea area of the island, which according to international law and the law of the Sea ( UNCLOS Convention) belongs to the Republic of Cyprus, following a maritime delimitation agreement with Israel and Egypt.

The Turkish policy vis-à-vis the Republic of Cyprus is well known and recorded<sup>46</sup>. The Turkish invasion in 1974 led to a de facto division of the island, which effectively allowed Ankara to behave as a patron of a puppet secessionist entity in the Northern occupied areas. However, the discovery of natural gas reserves surprised Türkiye. The determination of the Republic of Cyprus to proceed with the exploitation of its underwater hydrocarbon reserves created an "energy security dilemma" in Türkiye. The strengthening of Nicosia, as a result of its energy upgrade, was perceived as a threat to Türkiye's national security<sup>47</sup>.

According to a school of thought<sup>48</sup>, in the Eastern Mediterranean, Türkiye considered felt not only isolated in the East Med and thus did react to the planned and implemented exploratory drilling by companies such as TotalEnergies, ExxonMobil and the Italian ENI, but it also felt threatened assuming a significant weakening of its position, especially if the results of the drilling were positive (as they were, in part). Therefore, it targeted the "weak link" in the equation, Italy, as the USA and France were no eager at all to tolerate such reactions. However, Türkiye's gunboat diplomacy proved to be harmful for Turkish diplomacy as it provoked intense reactions of the two great powers and Israel. Moreover, the militarization of the eastern Mediterranean by Ankara harms its position since it undermines its most wanted role as an honest mediator in the Middle East<sup>49</sup>.

At any rate, Turkish military threats internationalize the dispute on maritime zones and exploration rights in the region and bring the Cyprus issue back to the fore. It is clear that Ankara still perceives relations with Nicosia over hydrocarbon control as a zero-sum game, where, what is good for Cyprus is bad for Turkey and vice versa. Turkish energy pursuits in the eastern Mediterranean are inextricably linked to Ankara's broader energy and geopolitical goals. Cyprus occupies a prominent position in Turkish geopolitical planning, since Ankara, through a constant revisionist foreign policy, aspires to exercise hegemonic role in the wider region<sup>50</sup>.

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<sup>45</sup>More about see: <https://diplomacy.state.gov/online-exhibits/diplomacy-is-our-mission/prosperity/gunboat-diplomacy/>.

<sup>46</sup> See Kareklas I., "International law and diplomacy on the Cyprus Question", Nomiki Bibliothiki, 2021.

<sup>47</sup> Manos Karagiannis, *Τουρκία και Κύπρος*, in Sotiris Ntalis, *Mare Nostrum*, Papazisis, 2020, p.314.

<sup>48</sup> Soli Özel, *Quest for autonomy: History, Geopolitics, and Ideology in Turkish Foreign Policy*, Institut Montaigne, Analyses, January 5, 2023.

<sup>49</sup> K. Balci, *The future of Israeli-Turkish relations*, Today's Zaman, 7 september 2011.

<sup>50</sup> Ahmet Davutoglu, *Strategic depth: Turkey's international position*, Küre Yayinlari; 32<sup>nd</sup> edition, p.280-281.

### 3.4 Trilateral cooperation between Greece and Cyprus with Israel and Egypt

In turbulent times of volatility and geopolitical uncertainty and periods of limited financial resources for the exercise of an active foreign policy, collaboration with neighboring states and the establishment of cooperative schemes and alliances at a strategic and tactical level may constitute a useful tool in order to promote national interests and national security<sup>51</sup>. This is exactly the objective of the evolving trilateral cooperation of Greece – Cyprus – Israel and Greece – Cyprus - Egypt. Common denominator in this equation is the difficult to poor relations of Cairo, Tel Aviv, Nicosia and Athens with Ankara. However, the element of the common rival is not enough to build a solid basis for a deeper cooperation. The cooperation should be founded on sharing mutual goals and mostly, on the existence of common interests. Tripartite partnerships are one of the most important diplomatic initiatives of Greece and Cyprus over the last few years.

The first cooperation was the one launched between Greece, Cyprus and Egypt in 2014. It was followed by the trilateral cooperation agreement with Israel in 2016, which led to a significant development of the relations of the three countries, although there is still an unresolved dispute over the delimitation of the EEZs of Cyprus and Israel, which affects the exploitation of the one and only major confirmed Cypriot natural gas deposit, that of Aphrodite.

It is remarkable, though, that all Greek governments since 2010 demonstrated an unprecedented continuity and consistency on their stance towards building regional partnerships with the states of the region. Similar schemes with Lebanon, the Palestinian Authority and Jordan are also in their early stages. At the very beginning, the Cypriot minister of foreign affairs, Ioannis Kassoulides, compared the cooperation around energy reserves in the eastern Mediterranean with the Coal and Steel community during the first stages of the European integration. Furthermore, the former president of the Republic of Cyprus, Nicos Anastasiades, interpreted the tripartite cooperation between Greece, Cyprus and Israel by saying that it belongs to the “western connecting link in the eastern Mediterranean”<sup>52</sup>. He also emphasized the democratic values of the three countries and their role as “islands of stability” and claimed that the West can rely on them as reliable allies and a focal point for collaboration in a region of instability and uncertainty<sup>53</sup>. In addition, the vice president of the Jerusalem Institute for Strategy and Security stated that amidst global turmoil, with Ankara’s irredentism in the region, the relationship between Greece and Israel is a pillar of effective regional strategy and constitutes an axis of stability.

Equally stable and persistent is the cooperation of Greece and Cyprus with Egypt, particularly after the political change of August 2013. Especially after the recent agreement on maritime delimitation between Greece and Egypt (2020) that came as a response to the null and void Türkiye – Libya memorandum of understanding, the two countries are even closer to undertake common energy projects concerning either

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<sup>51</sup> Zenonas Tziarras, *The new geopolitics of the eastern Mediterranean: Trilateral partnerships and regional security*, Peace research institute Oslo, Report 3/19, 2019.

<sup>52</sup> <https://www.timesofisrael.com/in-unprecedented-meet-netanyahu-greek-and-cypriot-leaders-push-gas-pipeline-as-peace-catalyst/>.

<sup>53</sup> In American Jewish Committee global forum, 5.6.2017.

electricity or natural gas. Egypt's hegemonic position in the Arab world and its key role in the Middle East as well as the unquestionable importance of Israel for the U.S., make these initiatives for energy cooperation even more attractive and potentially beneficial for both Greece and Cyprus<sup>54</sup>.

In the author's opinion, it is expected that the above trilateral cooperation schemes, through the collaboration in the political, economic, military, energy and even cultural field will soon start showing results and will definitely contribute to the establishment of a new security architecture in the region of eastern Mediterranean that will serve as an axis of stability in a turbulent area of the international system. It will also serve as an umbrella for cooperation and dialogue for the promotion of transnational energy projects without excluding any state of the region, provided that it respects international law, show no revisionist behavior, respect the rules of conduct between neighboring states and exercises no irredentist or imperialist policy<sup>55</sup>. The presence of the USA<sup>56</sup> in the "3+1" format highlights the importance of these actions in the global energy chessboard. It is no coincidence that in the US Senate, there was a cross-party cooperation in the case of Democratic senator Bob Menendez's proposal to incorporate "EastMed Act" into the bill (finally signed by the US president), which indicates the recognition of the new major upgrade of the importance of energy cooperation between the three states and at the same time the condemnation of Türkiye's illegalities in relation to maritime zones.

## **Chapter 4 Greece's policy towards natural gas pipelines in the Eastern Mediterranean**

### **4.1 Natural gas pipelines in Greece**

The main pillar of the Greek national energy strategy was the design and implementation of a series of natural gas pipelines to upgrade the state's international energy role. Indeed, since 2009 when the country was completely absent as a natural gas transit infrastructure, to 2010- 2014, a turn-around occurred. Greece upgraded the infrastructures and new pipelines were formed, which were not only designed but also joined and financed by the European Projects of Common Interest (PCIs). Thus, Greece won the battle for the implementation of the Trans-Adriatic Pipeline (TAP) against that of Nabucco, which was highly promoted by the strongest American and European lobbies; achieved to include the EastMed pipeline in the European energy planning as a new natural gas source, supply and transport route from the Eastern Mediterranean to Europe; launched the implementation of the Greek-Bulgarian (IGB) pipeline as the initial part of the vertical corridor and as a new supply pipeline for the area of the Eastern Balkans,. Finally, it also, upgraded the LNG infrastructure in Revythousa while integrated into the official national planning the FSRU of Alexandroupolis.

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<sup>54</sup> Thanos Ntokos, *Glossary of Greek – Turkish relations*, Kathimerini, 2020, p.122.

<sup>55</sup> Andreas Stergiou, *Geopolitics and energy security in the eastern Mediterranean: The formation of new energy alliances*, PCC report, Nicosia PRIO Centre, 2019, p.11-20.

<sup>56</sup> Secretary of State Mike Pompeo participated in the trilateral dialogue among Greece, Cyprus, Israel on March 20,2019.

All these energy infrastructures, in their full development, can contribute up to 35-40 BCM (billion cubic meters) of natural gas which is an amount approaching 8- 10% of the total European consumption. In fact, this participation is of great importance as it is deriving from new sources through new routes. As a result, provides the country with an unprecedented, extremely powerful diplomatic tool regarding the safeguarding of its national interest.

#### 4.2 The issue of the transport of the natural gas of Cyprus

Cyprus is a key and regulatory factor in terms of the energy synergies of the countries in the Eastern Mediterranean, not only as transit country but also as a producer, capable of covering its energy needs with its own resources from the deposits of “Aphrodite” and “Glafkos”. Widespread is the opinion<sup>57</sup> among experts that future discoveries will be even more impressive. The geological structure presented from seismic 3D data in the EEZ of Cyprus are similar to the anticline structures of the gigantic deposit of the Egyptian ZOHR (850 BCM). Despite the fact that the issue of the transfer of the natural gas from the sea to land is quite complicated, as it is a source of dispute with Türkiye, the methods<sup>58</sup> of distributing the natural gas that are possible in theory are the following:

1. Via submarine pipeline to Israel where a liquefied natural gas (LNG) plant will be built. This proposal has little chances to be implemented due to security concerns of Israel;
2. Via offshore gas liquefaction plant (FLNG- Floating liquefied natural gas) situated right next to the Mediterranean deposits. This project presents a high cost and technical difficulties;
3. Via a submarine pipeline to Cyprus, where a natural gas liquefaction plant will be built. Then, the LNG will be transported by vessels around the world. In this case, the construction of the liquefaction unit increases costs and the quantities of natural gas are not yet sufficient in order for investment costs to be swiftly recouped;<sup>59</sup>
4. Via a submarine pipeline to Greece that will transport the gas directly from the extraction points to Eastern Crete and then to mainland Greece and Italy. This project is known as the EastMed<sup>60</sup> pipeline. This routing is political favorable to Greece, Cyprus and Israel. Egypt is not interested in participating due its desire to turn itself into the only energy hub in the region which is a fact that puts Egypt in a collision course with Türkiye;
5. Transporting the gas to Cyprus and using it to produce electricity that is carried by the submarine cables to Europe and Israel. It is rather questionable that this can cover significant energy needs;

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<sup>57</sup> Ι. Μάζης, *Γεωπολιτική ανάλυση στο ενεργειακό σύμπλοκο της ανατολικής Μεσογείου*, Λειμών, 2020, p.27.

<sup>58</sup> A. Syrigos, *Atlas of Greek-Turkish relations*, Kathimerini, 2020, p.69.

<sup>59</sup> Asia Pacific research centre (APEREC)- Energy Working Group, *Investments in natural gas and supply chain under the low price environment*, series 12, June 2018, p.28.

<sup>60</sup> See below, par. 4.3 .

6. Via a submarine pipeline to Turkey and then to Europe. This is Türkiye's desirable solution which for years have struggled to become the area's only transit country of natural gas from the East to the West. The illegal<sup>61</sup> occupation of the Northern part of the island and poor political relations with almost all countries in the region rule out this possibility;
7. Via a submarine pipeline to Egypt, where there are already operating gas liquefaction plants that are operating below capacity. Egypt has had two liquefaction plants in the region since 2005.

#### 4.3 The importance of the EastMed Pipeline for Greek energy security

The EastMed pipeline is the leading European energy project across the Mediterranean. The signing in 2020 of the intergovernmental agreement between Greece, Italy, Cyprus and Israel is an important moment in an energy marathon that began and culminated in the period 2011 – 2014. The design of the EastMed began in 2011 in the context of the trilateral energy cooperation with Israel and Cyprus. Despite the fact that in 2013 Greece made it to include EastMed in the European projects of common interest (PCIs), the reactions varied even within the country.

Opposing part of experts expressed the opinion that there are technical difficulties and unfavorable financial and topographic realities<sup>62</sup>. They claimed that the EastMed pipeline is a very expensive export option as its construction would necessitate a very high selling price of 8 US dollars / BTU (British thermal unit) now and for the foreseeable future<sup>63</sup>, and the need for the construction of multiple compression units raises significantly the cost. To the demerits of the project are the seismic and volcanic activity in Greek waters which rises the risk of an accident that would be repaired with difficulty. In economic terms, they expressed their skepticism regarding its competitiveness given that Russian supplies which come from onshore fields are less expensive than those coming from offshore projects. Concerning the political support given from the three countries in the region, they argue that is not changing the situation, because importers base their decisions on price and not on what may be politically desirable by the governments<sup>64</sup>.

Despite the reactions, in December 10<sup>th</sup>, 2014 during the meeting of the Council of EU energy ministers, the EU vice-president in charge of energy issues, Maro Sefcovic, highlighted the EastMed as the top energy project requiring special funding, given that a relevant study had shown that the EU was energy dependent from third parties by 75%. Thus, the Council funded the preparatory scientific data collection and the study of the program with 38,500,000 Euros. Furthermore, the project's importance is also

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<sup>61</sup> UN security council resolution 541 of 18 November 1983.

<sup>62</sup> Andreas Stergiou, *Geopolitics and energy security in the Eastern Mediterranean: the formation of new alliances*, in Zenon Tziarras (ed.), *The new geopolitics in Eastern Mediterranean: Trilateral partnerships and regional security*, PPC Report 3, Nicosia PRIO Cyprus Centre, 2019.

<sup>63</sup> However, during August 2022 the price spiked at 9,7100 US dollars/ BTU, <https://tradingeconomics.com/commodity/eu-natural-gas>.

<sup>64</sup> Remarks by Gina Cohen, *3rd symposium on hydrocarbons research and development, organized by Institute for Energy for South East Europe*, Athens Oct. 2018. Interview with Amit Mor and Charles Ellinas.

verified by the US Congress which in its H.R.2919 (House of Representatives) of May 22<sup>nd</sup>, 2019 declared through the “Eastern Mediterranean Security and Partnership Act” (Art.1 par.10) *that it is in the national security interests of the US to promote, achieve and maintain energy security among, and through cooperation with Greece, Cyprus and Israel*<sup>65</sup>. In addition, EastMed could provide economic benefits to the US allies and partners in the region and contribute to the European efforts to diversify away from Russian natural gas supplies.

Regarding Greece, the project contributes to the state’s emergence as an energy hub. As a flagship investment of 6,1 billion euros ( ± 20%), it will bring huge direct and indirect economic benefits, it will create new jobs and shape a new energy corridor. The design and implementation of the project condenses four critical dimensions<sup>66</sup>:

- 1) The visionary European concept of the energy union and decarbonization in order to tackle climate change, through the EU’s independence from imports from third countries, the exploitation of domestic natural gas resources and its use as a transition fuel until 2050;
- 2) The geostrategic approach for regional cooperation of Israel, Cyprus, Greece and Italy, which all together constitute a nexus of countries for the supply from a new source (that of the Eastern Mediterranean), via a new route (bypassing Türkiye), through seas of European countries only;
- 3) The regional development of Greece and Cyprus, since Crete, Peloponnese, Western Greece and Epirus, areas through which the pipeline will pass, will see their energy isolation lifted, gaining access to a gas pipeline, which will bring about a 40% reduction in the energy costs of businesses and households;
- 4) The reduction of costs and the facilitation of the exploitation of domestic natural gas resources, from the existence of an international pipeline, which will be passing through the neighboring areas of the Ionian and Cretan national deposits and could be supplied by them.

In January 2020, a MoU was signed between DEPA and ENERGEAN to supply the pipeline with 2bcm (20% of its total capacity) from the latter which is operator and participant in natural gas consortiums<sup>67</sup> in the Eastern Mediterranean. This is an important first step in securing the necessary quantities of gas. It is crucial to mention that in the relevant study prepared by the companies on economic figures between EastMed project and the other two alternatives -onshore LNG unit, or FSRU -, it was demonstrated that the EastMed pipeline has the same construction cost and the same transit cost to the final consumers making it fully competitive with the other two options. In the author’s opinion, the EastMed pipeline project could be a beneficial option under certain conditions, one of which is the discovery of natural gas in offshore fields in Western Greece and in the sea area south and southwest of Crete. The current natural gas reserves in the Eastern Mediterranean do not meet the necessary economic criteria to support new infrastructure and transport investments.

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<sup>65</sup> <https://www.congress.gov/bill/116th-congress/house-bill/2913/text>.

<sup>66</sup> Prof. Ioannis Maniatis (Greek minister of Environment the period 2013-2015), *Energy security, hydrocarbons and pipelines- National and European dimensions*, in Sotiris Ntalis, *Mare Nostrum*, Papazisis, 2020, p.387.

<sup>67</sup> In Israeli fields: Karish, Karish North, Tanin, Blocks 12,21,23,31,55,56,61,62 and in Egypt: Abu Qir, North El Amriya, North Idku, North East Hap’y.

According to the scientific evidence so far, twice the volume of the current deposits is needed but the existence of exploitable deposits in Greece could contribute positively to this direction.

#### 4.4 Türkiye's strategy on Eastern Mediterranean.

Türkiye's energy independence is one of the most important long-term strategic objectives of president Erdogan. The Turkish president wants his country to be stronger at all levels by 2023 that marks a hundred 100 years from the founding of the Turkish Republic. That said, he pursues to reduce the country's dependence on other countries especially on the energy sector.

Türkiye imports 43 billion dollars of hydrocarbons to meet its energy needs and it plans towards overturning this unpleasant reality<sup>68</sup>In recent years, Türkiye has invested more than 1,2 billion dollars in purchases of research vessels and floating drilling rigs. This investment does not serve only political or symbolic goals but also serves to make the country independent from international markets in case of sanctions against it due to its illegal actions, like those blatant interventions in Cypriot EEZ.

In that regard, the "Oruc Reis, Fatih, Barbaros, Yavuz" and other vessels serve Türkiye's medium-term and long-term objectives to locate oil and natural gas deposits in the Eastern Mediterranean. Much more when the operating costs of this specialized fleet exceeds 300,000 dollars per day, a fact that requires it to be profitable as soon as possible. Consequently, the ongoing challenges in the Greek and Cypriot EEZ and continental shelf are not random events of flag demonstration but only a part of the scenario that will evolve in the near future<sup>69</sup>.

Erdogan's administration considers that its country is now a major regional power, negotiating with all powers East and West: equate the USA, the EU, Russia and China, thus increasing its distance from the West and certainly leaving it deeply indifferent to the prospect of promoting its relations with the Europeans. Hence, the Eastern Mediterranean is -also for energy reasons- of great importance to Türkiye. After all, Turkey aims at reviving its Ottoman Empire.

One of the fields that will make it either dominant or observer of the developments is undoubtedly that of energy. It cannot become a regional hegemon without controlling processes and decisions around projects of exploration and exploitation of energy resources. With a 19,2% of its total imports being hydrocarbons, it is self-evident that it is looking for ways to strengthen itself on the regional energy chessboard.

Türkiye has a specific plan that follows regarding both the Aegean and the Eastern Mediterranean. Its argumentation is based on the accusation that the rest of the countries in the region, especially the Republic of Cyprus have taken unilateral action. More specifically, according to Ankara's claims, the Greek Cypriots have marginalized the Turkish Cypriots from the processes of exploiting the mineral wealth of the island,

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<sup>68</sup> Konstantinos Filis, *The catalytic role of energy in Turkish policy in the Eastern Mediterranean*, in Sotiris Ntalis *Mare Nostrum*, Papazisi, 2020, p.417.

<sup>69</sup> Ioannis Maniatis, p.379.

disregarding the proposals for the participation of the latter in decision-making. Turkish officials accuse Nicosia of having refused the creation of a Greek Cypriot – Turkish Cypriot committee that will be responsible for licensing companies for the establishment of a common exploitation fund or even the involvement of the UN as the trustee of a fund. The latter will collect the revenues on behalf of the two communities. To the author's opinion this is at least ironic when Türkiye violates not only fundamental provisions of the UN Charter such as peaceful resolution of disputes; abstain from actions that threaten peace; abstain from the use of brute force, but also from resolutions of the United Nations Security Council (541/1983) concerning the Turkish invasion and occupation of the Republic of Cyprus.. Furthermore, what Ankara willfully ignores is that if its efforts were successful, it would automatically result in the equation of a State with a community. Thus, only after reaching a solution to the so-called Cyprus issue would any partnership between Greek Cypriots and Turkish Cypriots on the energy issue make sense.

Türkiye, unable to accept the conclusion of agreements of the Republic of Cyprus with neighboring states of the region and subsequently the launch of its energy program with the involvement of international companies, it argues that, while it warned the latter, and allegedly bringing constructive proposals to the table, it was left with no other choice but from proceeding with unilateral actions in order to a) ensure the interests of the Turkish Cypriots and b) to prevent the creation of a fait accompli to its detriment. In this way it justifies its aggression to the contempt shown to it by Nicosia as well as to the marginalization of the Turkish Cypriot community.

When it comes to the Hellenic Republic, Türkiye's accusations are that a regional front with an anti-Turkish character is being formed between Athens, Cairo, Tel Aviv and Nicosia and as a response Ankara proceeds to the delimitation of maritime zones with Libya. In addition to flagrantly violating any concept of the law of the sea, Türkiye chose the weakest link, a puppet-government like that of Tripoli to conclude an agreement that will soon start producing faits accomplis. It is certainly interesting that Türkiye has geographically shifted its interest from Cyprus and Kastellorizo to Crete, although it has long been seen its desperate effort to break the geographic cohesion of this "triangle" in the region. It is expected that Türkiye will continue to intensify its pressure on Greece in an attempt to pin it down while forcing it to refrain from actions that are considered undesirable and harm its interests.

With regard to Cairo, Ankara hopes that it will not make an agreement with Athens on the demarcation of the eastern part of the 28<sup>th</sup> meridian, fearing Türkiye's reactions. By maintaining the tension, the latter wants, among other things, to delay possible demarcations, intimidating the regional actors as well as cultivating a sense of concern in the international community that if the states proceed with agreements to define their EEZ, they will risk destabilization. Türkiye expects that the parties involved will weigh the pros and cons and will eventually choose to avoid undesirable to Ankara actions. Also, it anticipates that the West will discourage them from actions that might affect negatively a region of special interest such as the Eastern Mediterranean, especially this period where everybody in NATO is focused on the war in Ukraine<sup>70</sup>.

Türkiye has reacted strongly also to the possibility of the creation of the EastMed pipeline, as its strategic plan is to be the only supply route for Europe from the East. At

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<sup>70</sup> Eran Lerman, *Unequivocal diplomatic support for the EEZ Agreement between Greece and Egypt*, The Jerusalem institute of strategy and security, 2020.



a first glance, the EastMed is until now a dubious project of high cost and medium capacity. Gas pipelines from Russia, Iran and Azerbaijan currently terminate in Türkiye. Türkiye could be an alternative to the East Med since all of the natural gas coming from the East to Europe crosses Turkish territory. Thus, Türkiye considers that any pipeline that creates an alternative route could overturn its strategic planning. Despite the fact that some claim that the EastMed, cannot carry such quantities so as to upset Turkish supremacy<sup>71</sup> one should consider Turkish geology and proness to strong earthquakes as well as its behavior as a non reliable partner. Its recent behavior in the war in Ukraine is exemplary that Turkey cannot be trusted to carry out such a significant project. The EU might well find itself once again dependent from an authoritarian regime.

To the author's opinion it becomes clear that Türkiye wants to establish the belief towards the states of the Eastern Mediterranean, to third parties, as well as to international companies involved, that without previous consultations with Turkish side and its consent, no energy project can be implemented in the region. Seeing that many of the parties involved are either hesitant (Italy/ENI), or deeply confused about how to stop Turkish aggression (USA, EU), or busy with domestic rearrangements (Israel), or even phobic towards it (Egypt), Ankara is putting forward its coercive diplomacy as a means of enforcing its maximalist demands.

## **Chapter 5: The impact of Russia's invasion in Ukraine on Greece's energy security**

### **5.1 The energy landscape in Greece after Russia's invasion.**

Before Russia's invasion in Ukraine, Russian imports accounted for 46% of Europe's solid fuels, such as coal, 38% of natural gas and 26% of crude oil. According to Moody's, Greece had a high energy dependence on Russia, however, in terms of trade and security it was one of the countries with the least risk<sup>72</sup>. According to the same source, 26% of Greece's oil imports and 39% of its natural gas imports was coming from Russia in February 2022. However, Greek LNG terminals and easier access to other supplies in North Africa were somewhat mitigating any energy risk. Until February 24 came along and changed everything in the energy landscape. The Russian invasion brought about a huge package of economic sanctions against Russia's finance and energy sector. High priority was given to defense and energy security and the EU managed to protect security of supply through agreements with third countries such as Norway, Algeria, Qatar and the USA<sup>73</sup>.

From the very beginning of the imposition of sanctions on Russia, Greece tried to decouple from Russian hydrocarbons. As already mentioned above<sup>74</sup>, this brought

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<sup>71</sup> Angelos Syrigos, *Atlas of Greek-Turkish relations*, Kathimerini, 2020, p.69.

<sup>72</sup> <https://www.kathimerini.gr/economy/561723103/ypsili-i-energeiaki-exartisi-tis-elladas-apo-ti-rosia/>.

<sup>73</sup> George Pagoulatos, *The European Union and developments in Europe: permacrisis to be continued*, Eliamep Outlook, 2022.

<sup>74</sup> See chapter 2.1 .

about significant amendments to the initial NECP concerning the use of lignite in the energy mix. According to the latest (February 10, 2023) “Energy Analysis Bulletin” of the Energy Institute of South-Eastern Europe, it is depicted that Greece achieved full independence from Russian natural gas imports in January 2023<sup>75</sup>. Besides, the flow of natural gas from Russia to Greece was drastically reduced in the whole of last year, as shown by the Institute’s “Annual Analysis” of the Greek energy market.

## Conclusion.

Are we heading towards a revised post-war energy strategy? Europe was just beginning to recover from the impact of the pandemic on its economy when the war in Ukraine came to shake it and refute any post-Cold War expectation to include Russian Federation in European security architecture. Russia’s use of brute force in Ukraine came to spell an end for any vision of *Pax Europaea*<sup>76</sup>. The impact of this war on both European and Russian economy is expected to be devastating if the sanctions imposed are meant to be credible, effective and long-lasting.

The Russian invasion has now overturned the EU’s energy strategy, turning natural gas from a transition fuel to a means of exerting pressure in the context of geopolitical tensions. In this new, still under configuration, energy environment, the issue of energy security is of paramount importance, with the EU under pressure to decide on a gradual decoupling from Russian energy imports. As a consequence, the EU is developing a new energy policy by adopting a new strategy for a European energy union. This new strategy focuses more on energy security, the internal energy market, energy efficiency and research and innovation.

This dissertation aimed to showcase a critical issue for both the EU and Greece. It showed that under the aforementioned circumstances, a great opportunity is now presented to Greece to reposition itself on the new European energy map. Greece, as we saw, is developing into a key gateway to Southeast Europe for natural gas which-through completed or ongoing investments, such as the TAP pipeline, the terminal in Revythousa, and the FSRU of Alexandroupolis- is acquiring a high capacity in natural gas and LNG, annihilating this way any impact to its energy security that could emerge as a result of the Russian invasion in Ukraine and the consequent European sanctions on Russia’s energy sector. At the same time, electrical transnational interconnections are progressing and “forgotten” energy projects are being revived, such as the Burgas-Alexandroupolis oil pipeline. In this context and in addition to new interconnections, Greece acquires the conditions to emerge in the coming years as an exporter of clean green energy, while due to RES, it is expected to save in 2023 approximately 2 billion euros from the budget that would be necessary for electricity imports<sup>77</sup>.

From the above analysis, it can be deduced that the pipelines and overall the movements on the energy chessboard are not just lines in the map but mainly have an

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<sup>75</sup> <https://www.iene.gr/page.asp?pid=5779&lng=1>.

<sup>76</sup> George Pagoulatos, *Eliamep Outlook Predictions for 2023*, December 2022, Introduction.

<sup>77</sup> Konstantinos Skrekas (minister of environmental and energy affairs), <https://www.capital.gr/oikonomia/3683844/g-skrekas-se-kairia-thesi-tou-energeiakou-xarti-sti-notioanatoliki-europi-i-ellada>.

economic and environmental dimension. Greece's new energy policy seems to be a policy that liberates the creative forces in the country but is also an ambitious environmental policy that is fully harmonized with the European Green Deal and strengthens its geostrategic position. However, the dissertation also pinpoints that more actions need to be taken in order for Greece to become really extrovert, productive and powerful.

In conclusion, Greece will only emerge as a key player in this new European energy strategy if it manages to adopt itself a new energy strategy which will include the exploration and exploitation of its own -almost certain- natural gas reserves in Western Greece and South-Southwest of Crete which will be used for both domestic needs and imports to Europe enhancing the latter's energy security.



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