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A large wind turbine silhouette is the central focus, set against a vibrant sunset sky. The sun is low on the horizon, casting a warm glow over a range of mountains and a body of water in the distance. The turbine's three blades are spread out, and its tower is prominent. The overall scene is a mix of blue, orange, and red tones.

# **Squaring the Energy Transition Circle in Southeast Europe and the Eastern Mediterranean**

**How to leverage US-Greece cooperation to ensure  
energy security, while accelerating green recovery**

**By Katerina Sokou**

## **Europe Center**

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# **Squaring the Energy Transition Circle in Southeast Europe and the Eastern Mediterranean**

**How to leverage US-Greece cooperation to ensure  
energy security, while accelerating green recovery**

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Cover: Sun setting below a spinning windmill turbine in Patras, Greece. (Unsplash/Jason Blackeye)

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## Introduction

In the era of energy transition, achieving security of resources while addressing climate change is a challenge similar to squaring a circle. Yet in one of the most energy-dependent regions of Europe—in Southeast Europe and the Eastern Mediterranean—Greece and the United States have been working closely together to both increase energy security and accelerate the green recovery by spearheading regional energy integration and leveraging the region’s resources. This work has increased in geopolitical and economic value following Russia’s invasion of Ukraine, as the European Union (EU) now views it as “an existential policy” to reduce its dependency on Russian gas.<sup>1</sup>

This report aims to highlight the alignment of interests and priorities between the United States and Greece on energy in the past decade—namely the diversification of energy sources, the security of supply, and the transition to green energy. These goals are supported by infrastructure projects that are better integrating the region of Southeast Europe and the Eastern Mediterranean. They also are underpinned by the political will of both Greece and the United States to lead the way to carbon neutrality, which they see as an opportunity for improving competitiveness, raising economic prospects, and creating jobs for the future.

Convinced of the role that Greece can play in addressing the double challenge of energy security and energy transition for Southeast Europe and the Eastern Mediterranean, and encouraged by new momentum in the US-Greece strategic partnership, the Atlantic Council, with the support of Professor Yannis Maniatis, former Minister of Environment, Energy and Climate Change of Greece and the scientific adviser for this project, convened a task force of US and Greek policymakers, diplomats, energy experts, and business and thought leaders to drive the discussion forward.

Owing to their input across five workshops, several public engagements, and one-on-one interviews, this report seeks to move beyond the generalities of bilateral energy cooperation. It lays out recommendations for strengthening regional energy integration, leveraging existing tools like bilateral strategic dialogue,<sup>2</sup> and the 3+1 working group (Greece, Cyprus, and Israel, plus the United States), and amplifying Greece’s role as an energy hub for the region (as a conduit for increasing regional cooperation, strengthening energy security, and accelerating the transition to green energy). These goals not only work to increase stability in the region, but also provide significant economic opportunities for US allies and partners.

Many workshop participants observed that in a region where geopolitical challenges abound, Greece has emerged as one of the United States’ most important partners for achieving European energy security. There also was wide agreement on the alignment of interests between the United States and Greece in counteracting the influence of China and Russia, and helping stabilize both the Balkans and the Eastern Mediterranean.

Moreover, by focusing on enhancing US-Greece cooperation to achieve regional integration, the workshop proposals avoided becoming entangled in Greece’s maritime differences with Turkey. Indeed, until Greece and Turkey agree on how to address their maritime disputes,<sup>3</sup> this report’s policy proposals provide ideas about what the US and Greece can do to enhance energy security and regional integration by leveraging their bilateral ties.

For instance, US tangible support for electric interconnectors can help bring Eastern Mediterranean energy to Europe and act as a “strategic enabler” for the energy transition. By moving electrons that will increasingly be produced by

1 Reuters Staff, “Cutting Energy Dependence on Russia Is Key Issue, EU’s Borrell Says,” Reuters, February 28, 2022, <https://www.reuters.com/article/ukraine-crisis-borrell-energy-idUSS8N2UE04B>.

2 The annual U.S.-Greece Strategic Dialogue was initiated in late 2018 during the Trump administration and the Tsipras government, launched in Washington between US Secretary of State Mike Pompeo and Greek Acting Minister of Foreign Affairs George Katrougalos. It included high-level interagency representation from both countries and, according to the inaugural joint statement, it built on a year of intensive engagement, highlighted the strength of the bilateral relationship, and confirmed the mutual commitment of the United States and Greece to deepen cooperation in the following areas: regional cooperation, defense and security, law enforcement and counterterrorism, trade and investment, energy, and people-to-people ties. Following the 2019 parliamentary elections in Greece, which brought to power a new government under the leadership of Prime Minister Kyriakos Mitsotakis, the second Strategic Dialogue was launched in Athens in October 2019 between Greek Minister of Foreign Affairs Nikos Dendias and Secretary Pompeo. Before the US elections, in September 2020, Dendias and Pompeo held a high-level review of the US-Greece strategic dialogue, in anticipation of the third Strategic Dialogue which took place in Washington in October 2021 between Dendias and Secretary of State Antony Blinken of the Biden administration. It should be noted that in the 2021 joint statement, the area focus of energy became energy and environment, to include attention to the energy transition and address climate change. Similarly, there was a new focus area on humanitarian challenges and disaster preparedness following that summer’s devastating wildfires across the Mediterranean. In the context of the strategic dialogue, the two countries have also established a separate Energy Working Group that has been holding high-level meetings on an annual basis since 2019. The first was held in Athens on August 6, 2019, the second virtually on June 29, 2020, and the third virtually on July 6, 2021.

3 In a January 2020 town hall at the Atlantic Council during the Greek prime minister’s last official visit to Washington, Kyriakos Mitsotakis suggested having the International Court of Justice resolve Greece-Turkey maritime delimitation differences.

green energy, electric interconnectors would also facilitate regional cooperation on renewable energy. This is strategically important for the region and the transatlantic alliance, as climate change and the energy transition itself are bound to create new geopolitical challenges, from irregular migration and tensions over energy and water resources to competition over control of critical infrastructure and the security of supply for rare earth metals and critical minerals.

Hence, this report suggests ways to deepen and institutionalize the bilateral energy partnership on the basis of a comprehensive geopolitical strategy that leverages Greece's geography and resources to incentivize regional cooperation.

To that end, it recommends that US and Greek diplomatic initiatives aim to include Greece in the Three Seas Initiative,<sup>4</sup> which would add a key fourth sea, the Aegean, and its liquefied natural gas (LNG) facilities and infrastructure as valuable new additions to Central Europe's energy network. Similarly, this report counsels that the United States should embrace a more active role in the trilateral partnerships that have boosted energy cooperation in the Eastern Mediterranean, by potentially turning its 3+1 format for cooperation with Greece, Cyprus, and Israel into a quad. Such an arrangement would deepen energy cooperation to include hydrogen and energy-storage solutions, as well as expand its reach beyond energy to security cooperation, as conceived in the US-Greece Defense and Interparliamentary Partnership Act passed by the US Congress.<sup>5</sup>

This report also highlights opportunities for knowledge transfer, innovative projects, and business collaborations, including industry proposals to boost bilateral trade and investment on energy infrastructure and emerging energy technologies. During a workshop with industry leaders and various one-on-one interviews with regional energy producers and industrial energy consumers,<sup>6</sup> it became evident that the Greek private sector views the US government as the key ally to realize Greece's aspirations to become an energy hub, including for renewable energy.

They also stressed the need for US political support to achieve energy security and integration in the wider region of Southeast Europe and the Eastern Mediterranean, specifically through the transfer of regulatory experience and technological know-how, participation in multilateral energy projects, and joint business ventures, especially those maximizing the regional and local added value.

The report also points out that while Europe's ongoing struggles with securing reliable energy supplies will inevitably spur the green transition, one mustn't neglect strategies for the provision of transition fuels in the meantime. Natural gas, in particular, is a key part of European energy security, hence this report stresses that continued energy diversification is as important as ever to provide energy security and to address the tricky geopolitics of Southeast Europe, where gas markets are less interconnected and even more reliant upon Russia as a gas supplier.

As for Greece's aspiration to become an energy hub, the US may further aid it by working with the Greek government to identify projects of high priority that merit the support of the International Development Finance Corporation (DFC) and contribute to better energy diversification in Southeast Europe; keeping the taps open for US LNG to Greece; supporting all options for bringing Eastern Mediterranean gas to Europe, including electricity interconnectors between Europe, Asia, and Africa; leveraging Greece's position as one of the top producers of renewable energy to develop promising technologies, such as renewable hydrogen; and deepening the partnership by setting up the US-Eastern Mediterranean Energy Center, inviting Greece to be a partner country in its newly founded Net Zero World Initiative, and launching a US-Greece Energy Center to develop a joint research and development (R&D) strategy in renewables.

Last, but not least, as the bilateral strategic dialogue has been a central forum for discussing cooperation on energy, there is strategic scope for it to expand to include how to secure the energy transition and mitigate the economic and geopolitical risks of climate change.

4 The initiative, referred to as 3SI, includes the Adriatic, Baltic, and Black Seas, and involves twelve EU members. See "The Three Seas Initiative," Congressional Research Service, *In Focus*, IF11547, Version 2, Updated April 26, 2021, <https://sgp.fas.org/crs/row/IF11547.pdf>.

5 The act was passed as an amendment to the National Defense Authorization Act of Fiscal Year 2022 in December 2021; see Pub. L. No. 117-81, 135 Stat. 1541 (2021), <https://www.congress.gov/bill/117th-congress/senate-bill/1605/text>.

6 According to comments made during a roundtable discussion on insights from the industry at an Atlantic Council closed session on bilateral energy trade and investment, and regulations and financing, held on July 14, 2021, and in various interviews in October and November 2021. The interviews were conducted by the author in confidentiality, and the names of interviewees are withheld by mutual agreement; the same terms apply to subsequent notes referring to confidential interviews.

# I. Greece as an Energy Gateway between Three Continents

US diplomacy has long seen energy as a national security tool to advance Western values and untangle the dependencies and legacies of the Cold War. In the context of big power competition, the goal of integrating energy into national security discussions has expanded to include the geopolitics of energy transition. Greece, as a country already impacted by climate change, is leading the region's efforts toward clean energy while still largely dependent on gas imports for its energy needs—and is fully aware of the challenge. As Professor Maniatis put it in the report's inaugural workshop: "This energy transformation must aim at achieving greater independence from both Russian natural gas and China's raw materials."

For the United States, Greece has emerged as one of the most important partners for accomplishing the strategic goal of European energy security during this transition. In many ways, it has been at the forefront of the sea change that is taking place in the energy sector in Southeast Europe by helping bring new sources of energy and connecting some of the most isolated areas of Europe with pipelines and infrastructure that have the potential to significantly decrease dependence on Russia. As Greece is transforming into a hub of interconnectivity, it also aims to become an engine for energy transition. Both these goals require a fully integrated energy market.

As one of the most ambitious EU countries in its energy transition goals, Greece is also ahead of the region in phasing out lignite and coal, and is implementing prototype decarbonization solutions that will bring expertise to support a just transition. US-Greece bilateral cooperation is fast expanding in renewable energy, innovative storage technologies, and decarbonization, where there is keen interest for closer technology and business engagement.

In the Eastern Mediterranean, climate change is accentuating a multitude of security threats such as cross-border migration and tensions over water resources. At a time when the energy transition is raising new geopolitical challenges, working with Greece to address them is likely to

yield strategic benefits. Greece will do its part: as the world addresses diverse and challenging questions related to energy security and diversification, combined with fighting climate change, Greece sees a significant role for itself as "an energy gateway to the East and the West," according to the Greek Ministry of Foreign Affairs.<sup>7</sup> To achieve this, Greece aims to "leverage its geographic position, national resources, and international partnerships," said Alexandra Sdoukou, the secretary-general of the Ministry of Environment and Energy.<sup>8</sup>

In Southeast Europe, Greece has taken a leading role and is building important infrastructure projects that will turn it into a gas interconnectivity hub, starting with the memorandum of understanding (MOU) that it signed with Albania and Italy for the construction of the Trans Adriatic Pipeline in 2012. This includes existing and planned regional interconnectors and LNG terminals that could further integrate gas markets and widen access to alternative suppliers of energy. Athens, observed US Ambassador to Greece Geoffrey R. Pyatt, "puts itself at the center of a network of relationships in which Greece is helping to build European standards, helping to build resiliency, helping to build resistance to Russia's ability to use energy as a political weapon against countries that are seeking still to move towards European standards and European transatlantic institutions."<sup>9</sup>

Greece also has helped spearhead greater diversification and interconnectedness in the Eastern Mediterranean. The deepening of the trilateral partnership with Cyprus and Israel was initially sparked by the discovery of hydrocarbons in the Eastern Mediterranean. Natural gas discoveries by Israel, Cyprus, and Egypt will need to serve as a diversified energy source for Southern and Southeastern Europe—especially in the context of the current energy crisis in Europe, which underscores Europe's reliance on Russian gas.

At the same time, Greece's network of partnerships in the region has been expanding on account of renewables. As Greece aims to become both a main generator and a

7 "Energy, About Greece—Energy and Environment," Embassy of Greece in Washington (website), accessed March 2022, <https://www.mfa.gr/usa/en/about-greece/energy-and-environment/energy.html/>.

8 Alexandra Sdoukou, Remarks, Atlantic Council workshop (in the context of this report), July 14, 2021.

9 "Ambassador Pyatt's Remarks: 'The US Perspective for Southeast Europe's Energy Role,'" US Embassy & Consulate in Greece, September 10, 2021. <https://gr.usembassy.gov/ambassador-pyatts-remarks-the-u-s-perspective-for-southeast-europes-energy-role/>.



regional hub for green energy, it has prioritized moving electrons through interconnectors that are climate friendly, helping the electrification drive. These interconnectors are projected to deliver an increasing share of electricity produced by renewable energy sources, while minimizing

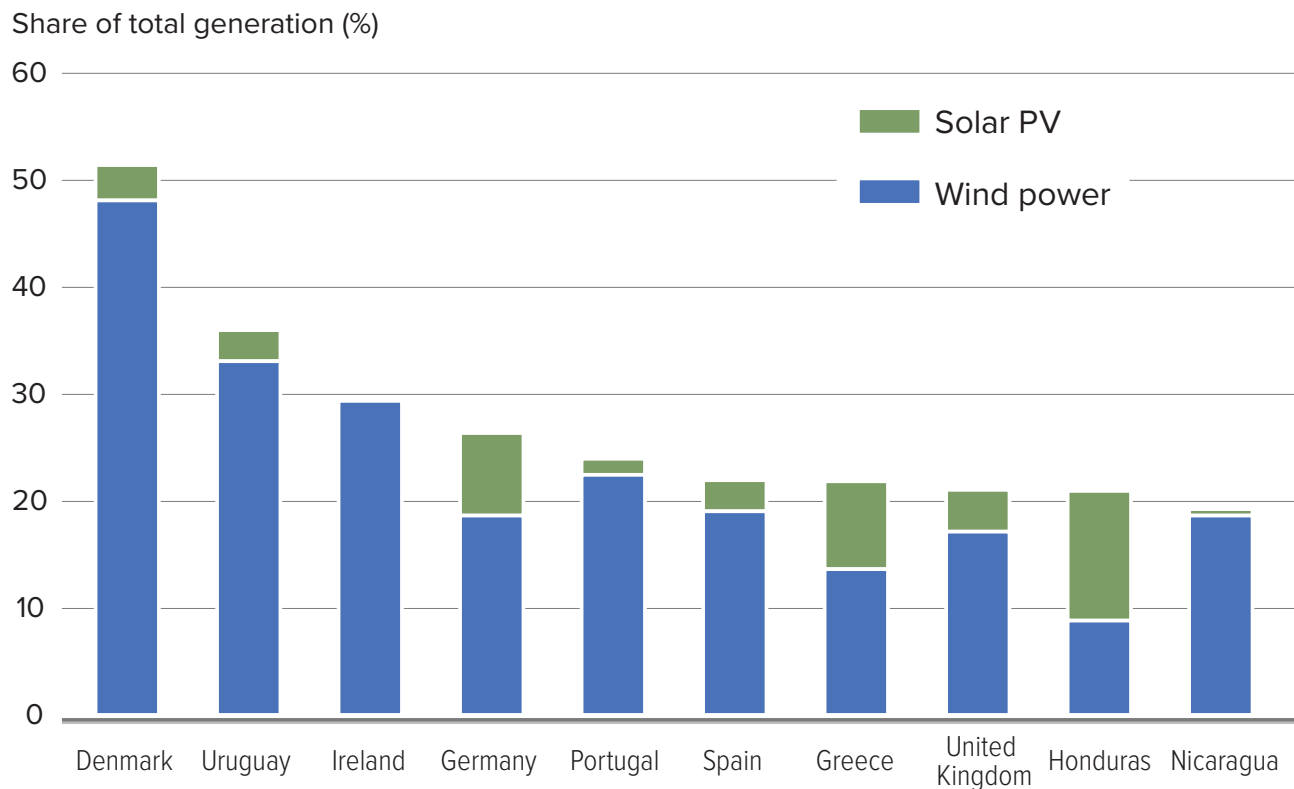
the complications of getting entangled in disputes over control of the region's hydrocarbons. Having established cooperation in the gas industry provides a framework within which the region can cooperate in the burgeoning area of renewables.

## II. Greece Leads the Way for the Energy Transition

**A**cross the Mediterranean, extreme weather events are increasingly severe and destructive. Greece has been challenged by wildfires that have become increasingly dangerous and hard to contain. In the summer of 2021, during a record-long heatwave, a total of thirteen megafires decimated more than 287,000 acres of forest. The Greek government responded with a renewed focus on mitigating the effects of climate change while doubling down on its commitments

to lead the energy transition to renewable energy sources (RES). As Greek Prime Minister Kyriakos Mitsotakis noted in 2021 at the COP26 climate conference in Glasgow, “Despite its small carbon footprint, [Greece] can make a significant contribution in the green transition that goes beyond our ambitious European goals of reducing emissions by 55 percent by 2030 and carbon neutrality by 2050.”<sup>10</sup> (Greece’s annual share of CO<sub>2</sub> emissions was calculated at 0.15% percent of the world’s total in 2020.)<sup>11</sup>

**Share of Electricity Generation from Variable Renewable Energy, Top 10 Countries, 2018**



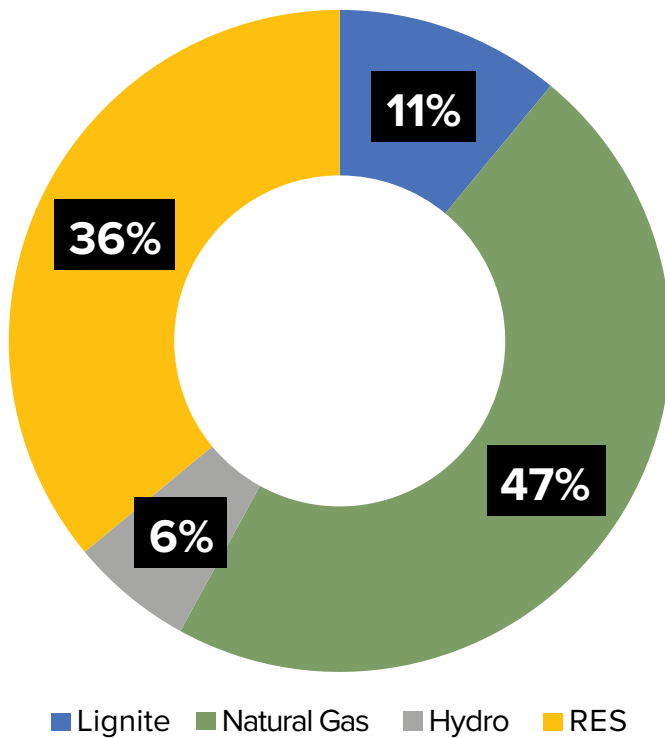
Note: This figure includes the top 10 countries according to the best available data known to REN21 at the time of publication.

Source: REN21

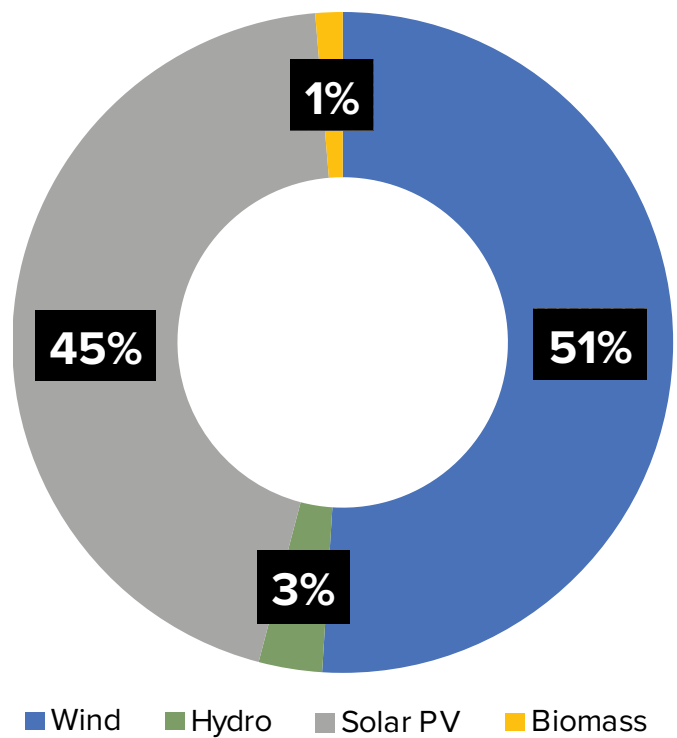
<sup>10</sup> “Prime Minister Kyriakos Mitsotakis’ Speech at the COP26 World Leaders Summit,” Prime Minister of the Hellenic Republic, November 12, 2021, <https://primeminister.gr/en/2021/11/01/27841>.

<sup>11</sup> Global Carbon Project data for 2020, “What Share of Global CO<sub>2</sub> Emissions Are Emitted by the Country?” in “Greece: CO<sub>2</sub> Country Profile,” compiled by Hannah Ritchie and Max Roser, Our World in Data (website), <https://ourworldindata.org/co2/country/greece>.

**Greek Energy Production Mix - Oct. 2021**



**Greek Installed RES Capacity – August 2021**



Source: Deloitte

Greece has adopted ambitious climate and energy goals. Its 2021 climate bill sets the road map for achieving carbon neutrality by 2050, in line with the EU’s climate goals. This is a tall order. To succeed in this transition, it would need to benefit from a fully integrated energy market and from a swift completion of projects that interconnect the electrical grids and gas pipelines of the region, improving both efficiency and security of supply.

Yet what benefits Greece lacks in geographical proximity to Europe’s core, it makes up for in renewable energy potential thanks to its wind-swept seas and sun-drenched landscape: in recent years, Greece has become one of the ten biggest producers of wind and solar energy in the world.<sup>12</sup> According to local energy experts, during the last decade, the sharp decline of renewable infrastructure prices, low prices of gas over most of that period, and a political decision to decarbonize the country all contributed

to the Greek energy mix shifting from lignite to natural gas and renewable energy sources.

To further accelerate the pace of phasing out coal, the Greek government presented a climate bill that not only set specific climate targets but also the process for meeting them. In his COP26 speech, Prime Minister Mitsotakis committed Greece to transition to low-carbon electrification, aiming for the country to become one of the main generators of off-shore wind production in the Mediterranean by installing a base of 2 gigawatts (GW) by 2030. Greece will innovate in pumped-storage hydroelectricity, taking advantage of the country’s unique geomorphology. It will adopt a new strategy for tourist destinations, with a goal of eliminating more than ten million tons of CO<sub>2</sub> by making Greek islands 100 percent energy self-sufficient. Greece is also putting forward proposals for the decarbonization of maritime transport through investment in technological innovation.<sup>13</sup>

<sup>12</sup> *Renewables 2019*, Global status report, Chapter one, REN 21, [https://www.ren21.net/gsr-2019/chapters/chapter\\_01/chapter\\_01/#sub\\_4](https://www.ren21.net/gsr-2019/chapters/chapter_01/chapter_01/#sub_4), last accessed May 17, 2022.

<sup>13</sup> “Prime Minister Kyriakos Mitsotakis’ Speech at the COP26 World Leaders Summit.”

### III. The Double Challenge of Energy Security and Competitiveness

The strategic aim of the Greek government is to drive its energy transition in the most economically competitive manner, while also ensuring a sharp reduction in greenhouse gas emissions in accordance with its ambitious climate goals. How to achieve this in the face of a global energy crisis that pushed gas prices in Europe to their highest ever close—€180.27 per megawatt hour (MWh) on December 21, 2021, for the Dutch wholesale front-month contract—remains a challenge for both Greece and Europe.<sup>14</sup>

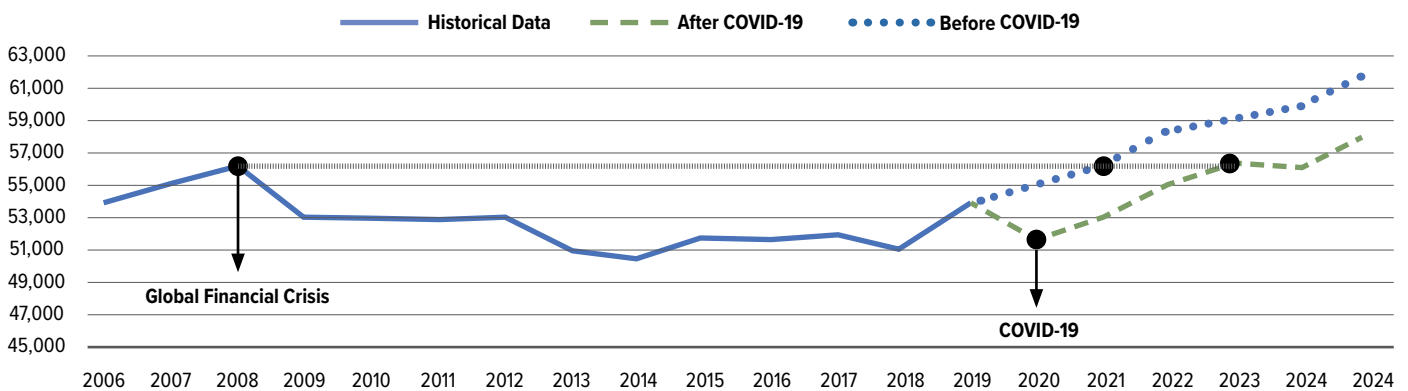
The Greek government stresses that the natural-gas price crisis should not derail its strategy for decarbonization. Instead, it aims to move faster toward renewable sources. Yet in a sign of the strains to the stability of its electric grid, it has decided to extend the operation of old lignite plants by two years—through 2025—even as it still plans to phase out lignite by the end of 2028.

A swift transition to renewables is considered the best way to significantly reduce consumers’ electricity cost over the

medium term. Greece is on the right track, but still has a way to go<sup>15</sup>: the share of renewables in Greece is projected to reach its pre-COVID-19 national target of 41 percent of gross electricity consumption in 2023, quickly catching up after a small deceleration in renewable energy investment during this pandemic.<sup>16</sup>

Realizing this goal requires both stable baseload production and increased system flexibility. Greece is procuring storage of 1.4 GW in the form of batteries and pumped hydropower; however, to cover baseload demand and increase flexibility in the medium term, it will still need to rely on natural gas, including through pipelines designed to suit hydrogen and able to accommodate low carbon and renewable gases (per a proposed EU directive on gas markets, and to avoid future stranded assets<sup>17</sup>). Hydrogen may also help the transition as a flexible energy carrier. It can be produced from various types of energy sources while offering many opportunities for long-term energy storage. Greece has put an array of projects across the hydrogen value chain,<sup>18</sup> such as the flagship White Dragon project in the region of western Macedonia.

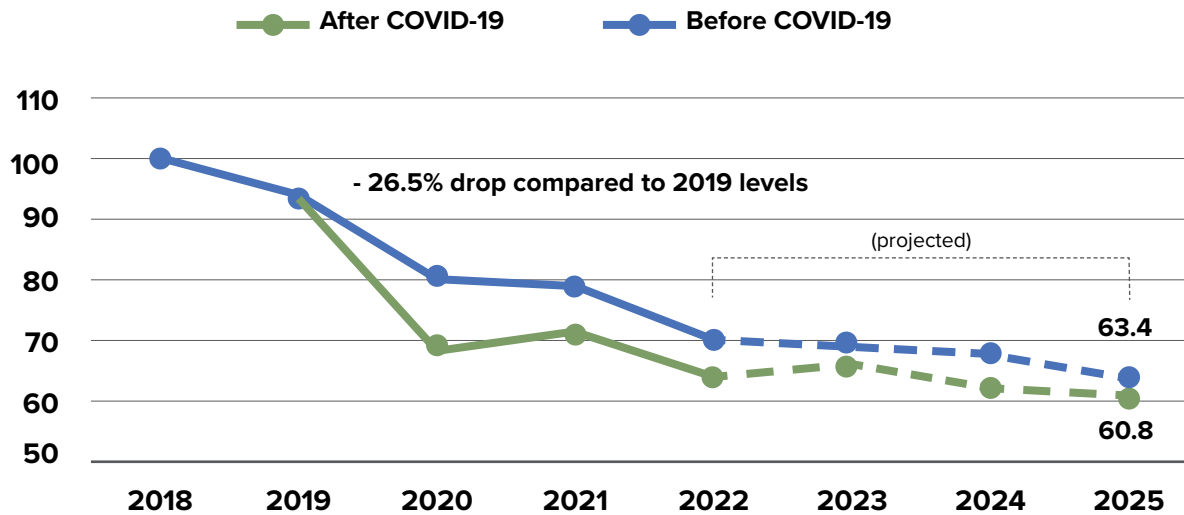
Projected Evolution of Total Demand for Electricity in Greece (GWh)



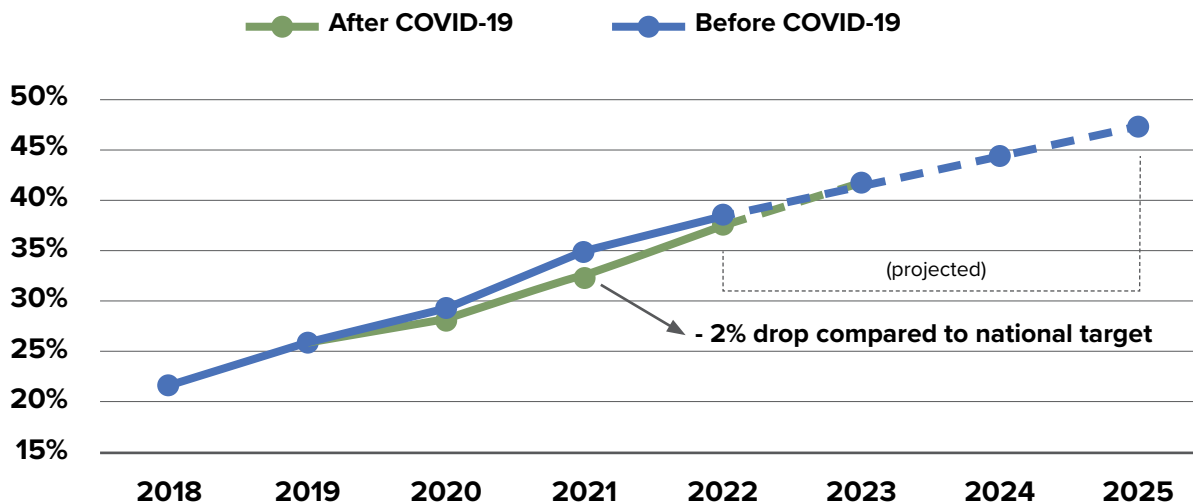
Source: Deloitte

14 Teo Blašković, “Natural Gas Prices in Europe Explode to All-Time Highs as Major Russian Flow Stops,” The Watchers (daily news service), December 22, 2021, <https://watchers.news/2021/12/22/natural-gas-prices-in-europe-explode-to-all-time-highs-as-major-russian-flow-stops/>.  
 15 To reach its goal of 61 to 64 percent of gross electricity consumption in RES by 2030  
 16 “Evolution of Total Demand for Electricity in Greece,” Deloitte slide presentation, December 17, 2021  
 17 “Energy: Hydrogen and Decarbonised Gas Market Package,” European Commission (website), 2021, [https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/hydrogen-and-decarbonised-gas-market-package\\_en](https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/hydrogen-and-decarbonised-gas-market-package_en). Stranded assets are, per Lloyd’s definition, “assets that have suffered from unanticipated or premature write-downs, devaluation, or conversion to liabilities.” See “Stranded Assets: Transition to a Low Carbon Economy,” Lloyd’s (website), <https://www.lloyds.com/strandedassets>.  
 18 The activities and processes to create a product or provide a service comprise a value chain. See “Business Insights,” Harvard Business School Online, <https://online.hbs.edu/blog/post/what-is-value-chain-analysis>.

### Evolution of Total CO2 Emissions in Greece (MtCO2)



### RES Shares in Gross Electricity Consumption in Greece (%)



Source: Deloitte

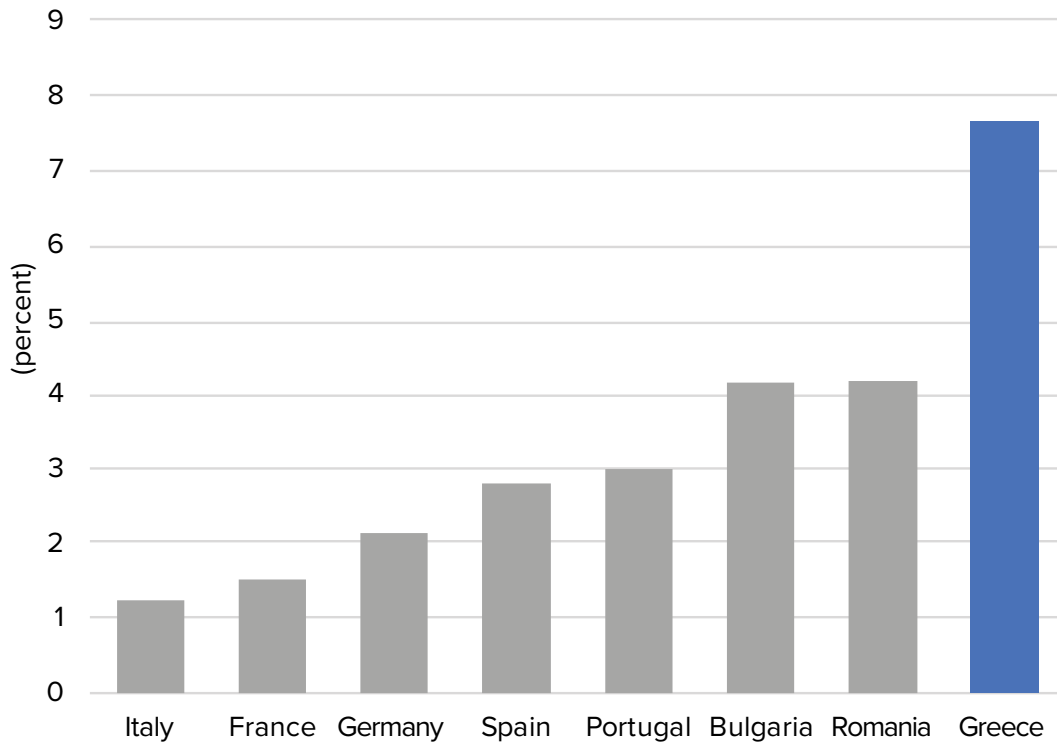
The most important driver of the energy transition for Greece and the EU in the next few years will be the European Recovery Fund (ERF). Greece plans to use funding for its national recovery plan from COVID-19 to achieve the dual goal of transforming the economy and building resilience to climate change. Its Recovery and Resilience Plan, dubbed Greece 2.0., implies a new version of the country, one where a total of 175 investments, projects,

and reforms would “prepare Greece for the future.”<sup>19</sup> The Greek plan was well-received in Brussels, and the €32 billion earmarked for Greece boosts the potential for making substantial change.

The success of restructuring the Greek economy both depends on and offers opportunities to the business sector. To succeed in the energy transition while preserving

<sup>19</sup> European Commission President Ursula Von der Leyen, Remarks, Ceremony for the Presentation of the Greek Next Generation EU National Recovery Plan, June 17, 2021, <https://www.ekathimerini.com/news/1163061/von-der-leyen-greek-recovery-plan-to-transform-economy/>.

**Share of purchases of energy products in total purchases of goods and services, manufacturing (2019)**



Source: Deloitte

Greece’s economic competitiveness, the Greek government aims to make optimal use of national and European financing mechanisms, including some creative ideas to finance the green transition. Yet leveraging private-sector investment will also be critical in making the best use of the ERF, and US companies could play a key role in leading the transformation of the Greek economy, especially in the priority areas of digital technology and green energy. The estimated foreign direct investment needed to implement the overall plan surpasses €44 billion. This figure includes €9 billion for renewable-energy components, €9 billion to upgrade and extend electricity grids, €11 billion for energy efficiency plans, and €1.3 billion for its new gas plans.

Investments will also need to be made with the aim of lowering energy prices, as Greece has the second highest energy costs in the EU. The Foundation for Economic and Industrial Research (whose Greek acronym is IOBE)

has calculated that an energy-price reduction of 10 percent would add €941 million to Greece’s gross domestic product (GDP). This effect also would improve the competitiveness of the largest Greek exporting companies, which are energy intensive and argue that Greek industrial policy should preserve their competitiveness, especially at a time when they strive to decarbonize their operations.<sup>20</sup> Larger EU countries already provide significant incentives for their own companies in the context of the green transition, while the United Kingdom is projected to raise its public debt to GDP by 21 percentage points by 2050 to enable the state to subsidize decarbonization. Even free market advocates such as *The Economist* magazine now endorse state interventions to set the right price for carbon, provide R&D subsidies, and even invest in public investments, albeit “highly scrutinized” ones.<sup>21</sup>

In a series of one-on-one interviews,<sup>22</sup> representatives of Greek industrial companies expressed concern about the

20 “The Industry Sector in Greece: Trends, Prospects and Challenges,” by the Foundation for Economic and Industrial Research, April 2021, Dianeosis (Page 65, in Greek)  
 21 “The Energy Shock,” *Economist*, October 16-22, 2021, <https://www.economist.com/weeklyedition/2021-10-16>.  
 22 Multiple confidential interviews conducted by the author with industry sources, June-November 2021.

high cost of CO<sub>2</sub> emissions, and stressed the need for a coordinated transatlantic approach between the EU and the United States to avoid double taxation. They also noted the need for tax incentives to improve the competitiveness of low-carbon products and technologies. The focus on competitiveness is particularly relevant as electricity prices have surged for consumers across society. The Greek government is concerned about combatting energy poverty: in 2019, before this surge, 17.9 percent of Greek households—more than double the European average—could not afford adequate heating.<sup>23</sup>

While Greece has taken measures to provide direct support to consumers domestically, the European Commission was heeding calls for the EU to act strategically by taking advantage of its collective bargaining power to build up natural gas reserves through a centralized European platform. In an effort to stabilize gas prices following Russia's invasion in Ukraine, the European Council finally agreed on March 26, 2022 to introduce voluntary joint energy purchases for EU members and for Western Balkan countries alike. The crisis also has given new urgency to Greece's plans to build a strategic gas storage facility.

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23 "The Energy Sector in Greece: Trends, Prospects and Challenges," By The Foundation of Economic and Industrial Research, April 2021, Dianeosis, (Page 69, in Greek)

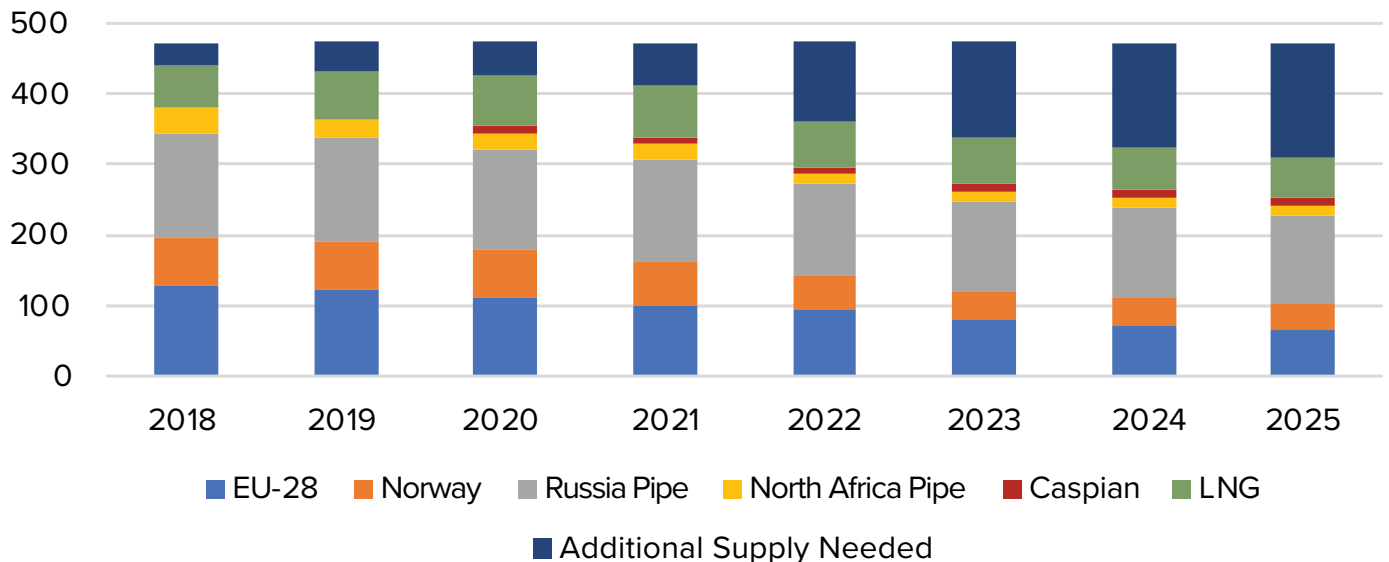
## IV. Gas as a Transition Fuel: Europe’s Achilles’ Heel

The record high gas prices in Europe have raised geopolitical concerns, as the current dependence on and exposure to market fluctuations may allow third parties to use energy as a political weapon against EU interests. Professor Maniatis has estimated that Europe’s biggest energy vulnerability relates to natural gas, as gas consumption is still projected to rise while adequate supply has not been secured.<sup>24</sup> With 40 percent of its gas coming from Russia, Europe faces a formidable task in its effort to cut this dependence completely by 2030. As he noted, this reliance is even larger in Southeast Europe, where natural gas is projected to remain an important component of regional energy security for at least the next decade. Therefore, diversification of alternative import sources and routes remains key to decreasing the region’s import dependency on any single supplier.

For its part, Greece has benefited in recent years from increased diversification of energy sources. Increased LNG imports and new gas deliveries via the Trans Adriatic Pipeline (TAP)—which brings gas from Azerbaijan to Greece and beyond—already makes up 20 percent of Greek consumption, decreasing reliance on Russian gas from 75 percent in 2014 to a projected 40 percent overall in 2021. However, Bulgaria’s reliance on Russia, for example, still stood at 77 percent in 2020, and Balkan countries hope to leverage access to Greece to diversify transmission routes and supply sources.<sup>25</sup> A well-supplied and efficient energy sector in Greece can help reduce the region’s heavy dependence on Russian gas.

In an interview, Professor Maniatis estimated that between TAP, new interconnectors to the Balkans, the floating storage and regassification unit (FSRU), and an expanded LNG

**Additional supply requirements in the EU after domestic production and contracted imports, 2018-2025 in bcm\***



\*Data from 2020 onwards are projections.

Source: IEA

24 Professor Yannis Maniatis, Presentation, Energy Conference, Academy of Athens, October 1, 2021, <http://www.academyofathens.gr/el/conferences/energy2021>.

25 “Share of Gas Supply from Russia in Europe in 2020, by Selected Country,” Statista (website), <https://www.statista.com/statistics/1201743/russian-gas-dependence-in-europe-by-country/>.



terminal capacity, Greece will soon have the potential to transfer 30 billion cubic meters (bcm) of natural gas annually.<sup>26</sup> Should the East Med Gas Pipeline be constructed, this would bring the total to 40 bcm, he noted, close to 10 percent of European consumption.

Highlighting the latter's significance in a spring 2021 joint letter to the European Commission, the energy ministers of Bulgaria, Cyprus, Greece, Hungary, North Macedonia, Romania, and Serbia asked for its tangible support for the East Med pipeline, noting the possibility of extending its supply beyond Italy to Southeast and Central Europe. The East Med Gas Pipeline, they underlined, "can prove instrumental in enhancing the security of supply to the region."<sup>27</sup> Following the Russian invasion in Ukraine, Italy is also reviewing this project as a priority for its energy security, with the Minister of Development noting during a visit to Israel that the more alternative sources of energy we have, the better it will be for European nations.<sup>28</sup>

However, in early 2022, the US State Department cited environmental and economic considerations for withdrawing its support for the East Med Gas Pipeline. Even as it did so, it noted: "We remain committed to physically interconnecting East Med energy to Europe. We are shifting our focus to electricity interconnectors that can support both gas and renewable energy sources."<sup>29</sup> For instance, the State Department made clear that the United States supports projects such as the planned interconnectors from Egypt to Greece, as well as the proposed EuroAsia interconnector to link the Israeli, Cypriot, and European electricity grids.<sup>30</sup> As it noted in the same statement, "such projects would not only connect vital energy markets but would also help prepare the region for the clean energy transition." Clarifying the US administration's position in a call with Greek energy analysts, US State Department Senior Advisor for Global Energy Security Amos Hochstein noted that this switch "will give us more motivation, more resources, and more diplomatic capability to push the electricity interconnections because it will connect our

support for the Eastern Mediterranean with our climate goals."<sup>31</sup>

The argument for exploring all future-proofed, viable options to diversify from Russian gas became more timely following Russia's invasion of Ukraine. Russian natural gas imports to Greece, despite significant declines in recent years as US LNG became available, were projected to rise by 12 percent in 2021, according to Gazprom. During the first nine months of the year, US LNG imports dropped by 47 percent, as US suppliers found more attractive markets in Asia.<sup>32</sup> Before geopolitical tensions led to a concerted effort to redirect US and other LNG ships to Europe in the first quarter of 2022, Russia's share was boosted by the rise in LNG prices, as pipeline gas from Russia is more competitive against LNG, especially for contracts indexed to oil. Still, US LNG imports were projected to make up nearly half of all LNG imports to Greece in 2021, not too far off the earlier two record years.

Aware of both the economic and the geopolitical effects of the energy crisis, Hochstein does not rule out a resource-availability crisis in Europe next winter, and is concerned about sustained high energy prices that affect the whole value chain, including renewable energy.<sup>33</sup> He has urged Europe to do more on collective contracting for cargoes and identify other areas that could provide solutions.<sup>34</sup>

For its part, the United States also has an important role to play, as it controls a significant share of the global LNG market. US LNG supplies, though not a response to a short-term shock, may help keep prices in check in the medium to long term. US LNG producers respond to market forces: "The US government does not direct our companies in who they sell to,"<sup>35</sup> Hochstein stressed. Nevertheless, Washington has ensured that the flow to Europe stays open, and record-high prices saw "a flotilla of US LNG cargoes" headed to Europe in late December 2021.<sup>36</sup> In the run-up to the Ukraine crisis, the Biden administration

26 Professor Maniatis, interview conducted by the author, December 2021.

27 The joint letter was initiated by Greek Minister of Energy Kostas Skrekas, who also issued a press report about it on April 5, 2021. The actual letter content has not been made public, but the author has seen the quoted text above. See "EastMed Alliance Broadens, Eight Countries Express Support," Energypress (portal), April 5, 2021, <https://energypress.eu/tag/east-med/>.

28 "Italian Development Minister: East Med is a big opportunity for Italy," Energy Press, April 26, 2022 [In Greek], <https://energypress.gr/news/italos-yypoyrgos-anaptyxis-o-eastmed-apotelei-megali-eykairia-gia-tin-italia>

29 US State Department, email response to author's press query seeking comment for attribution to a State Department spokesperson, January 9, 2022.

30 Based on author's separate, off the record conversation with US State Department official.

31 Amos Hochstein explained the backdrop of US statements around the East Med pipeline and the Biden administration's energy priorities in the region during a closed, for attribution, discussion hosted by the Center for Strategic and International Studies (CSIS), January 18, 2022; author's recording.

32 "Natural Gas Trade and Domestic Consumption by Customer Categories," Deloitte Slide Presentation, December 17, 2021

33 Amos Hochstein, Comments, Briefing Organized by the US State Department Bureau of Global Public Affairs, Brussels Media Hub, October 25, 2021.

34 Hochstein, Comments, Briefing.

35 Hochstein, Comments, Briefing.

36 "US Sends Fleet of LNG Ships to Fuel-Starved Europe," Bloomberg, December 22, 2021, <https://www.bloomberg.com/news/articles/2021-12-22/a-flotilla-of-u-s-lng-cargoes-is-headed-to-fuel-starved-europe>

reached out to foreign and domestic LNG suppliers, asking them to redirect shipments to Europe in case Russia cuts off its gas supplies.<sup>37</sup> On February 22, the White House revealed a wider plan “in coordination with major oil producers and major oil consumers to secure the stability of global energy supplies.”<sup>38</sup> And on March 25, it announced an agreement with the European Union to help provide it with 15 billion cubic meters of LNG this year to help it cut its dependence on Russian gas amid an energy security crisis triggered by Russia’s war in Ukraine.

In any case, natural gas will remain an important transition fuel for the wider region to safeguard security of supply and energy affordability. If anything, Europe’s energy crisis

shows that the early stages of the transition toward carbon neutrality still depend on gas supply and prices, and will continue to do so until renewable and other carbon-free sources dominate the EU energy mix. Furthermore, key industry players underline the need for a realistic, gradual policy approach to the energy transition that acknowledges the importance of natural gas for Southeast Europe, and allows a window of opportunity to invest in gas infrastructure projects until 2030.<sup>39</sup> Aware of the geopolitical and economic stakes for a region that has lagged in energy integration, Greece is driving such regional interconnections to achieve the energy efficiencies needed to deliver energy security and energy affordability, and ease the energy transition.

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37 Breck Dumas, “White House Calling Liquid Natural Gas Suppliers for Help in Case Russia Cuts off Europe,” Fox Business, January 28, 2022, <https://www.foxbusiness.com/politics/white-house-calling-liquid-natural-gas-suppliers-help-russia-cuts-off-europe>.

38 Daleep Singh, White House Press Briefing, February 22, 2022, <https://www.whitehouse.gov/briefing-room/press-briefings/2022/02/22/press-briefing-by-press-secretary-jen-psaki-and-deputy-national-security-advisor-for-international-economics-and-deputy-nec-director-daleep-singh-february-22-2022/>.

39 Based on multiple one-on-one confidential interviews conducted by the author with industry sources and energy experts in the last quarter of 2021.

## V. A Bilateral Partnership with Similar Climate Goals and Geopolitical Considerations

**E**nergy is one of the most dynamic and productive areas of bilateral cooperation between Greece and the United States, and a key part of the strategic dialogue between them. Initially focused on gas and driven by energy security and regional cooperation priorities, the Biden administration has expanded the focus to include green recovery and decarbonization. The United States and Greece have, in their own words, “an increasingly interconnected energy relationship . . . both in terms of bilateral trade and investment, and as a positive driver of progress towards energy security and diversification goals.”<sup>40</sup>

The two countries share the “goals of increasing energy diversification and security, promoting fair and equitable access to greener sources of energy, and addressing climate change through decarbonization policies.” In the context of the third United States-Greece Strategic Dialogue, in October 2021, the nations recommitted to these goals, and acknowledged the importance of a diversified strategy to support the energy transition and achieve net zero emissions by 2050.

To do so, they will need to expand the reach of the 2019 Eastern Mediterranean Security and Energy Partnership Act, which put the United States’ strategic focus back on the region as a whole and aligned the United States with its allies there on a range of security and economic issues—but was not heavy on renewable energy sources.<sup>41</sup> Still, as noted by the ambassador of Greece to United States, Alexandra Papadopoulou, “Having an established cooperation in the gas sector has provided the framework of cooperation in the burgeoning area of renewables.”<sup>42</sup> The US administration is interested in leveraging existing successful regional networks like the East Med Gas Forum and the 3+1 process to expand this work on clean energy and technologies.<sup>43</sup>

Some of the tools to do so are already provisioned for: The US-Greece Defense and Interparliamentary Partnership Act may be focused on deepening cooperation in the region, but it reiterates that the US government should set up the United States-Eastern Mediterranean Energy Center, as authorized by the Eastern Mediterranean Security and Energy Partnership Act. Given the 2020 Greece-US Science and Technology Agreement, this center could set the stage for broader collaboration to strengthen the energy and technology alliance between the two countries, Cyprus, and Israel, hence highlighting the technology-developing and job-creating benefits of such international partnerships between like-minded allies.

This collaboration could include business opportunities for energy efficiency initiatives and the supply of clean energy resources like offshore renewables, energy storage, and hydrogen. The United States has welcomed the participation of US companies in Greece’s innovative hydrogen power initiatives and more broadly US investments in green energy projects in Greece, stressing the need for continued decarbonization and renewable energy development. For its part, Greece has shared updates on its planned wind farms and solar energy projects, which may attract further interest from the US private sector, as greater economies of scale will also allow for opportunities to export this renewable power.<sup>44</sup>

The United States has stressed the role that Greece can play in confronting the global climate crisis head-on. Both countries are increasingly focused on accelerating the green transition and responding to climate change as the most sustainable way to spread economic and climate benefits to the wider region. With US and EU support, Greece has the ability and the interest in expanding green energy projects in the region in order to provide greater energy security for the region and a new source of clean

40 US Department of State, Office of the Spokesperson, “Joint Statement on Third United States–Greece Strategic Dialogue,” US Department of State, October 14, 2021, <https://www.state.gov/joint-statement-on-third-united-states-greece-strategic-dialogue/>.

41 “Congress Passes Menendez-Rubio Bill Reshaping US Policy in Eastern Mediterranean,” United States Senate Committee on Foreign Relations (news release), December 20, 2019, [https://www.foreign.senate.gov/press/ranking/release/congress-passes-menendez-rubio-bill-reshaping-us-policy-in-eastern-mediterranean\\_-](https://www.foreign.senate.gov/press/ranking/release/congress-passes-menendez-rubio-bill-reshaping-us-policy-in-eastern-mediterranean_-).

42 Amb. Alexandra Papadopoulou, Comments, inaugural Atlantic Council workshop on US-Greece Energy Policy, June 3, 2021.

43 US Ambassador to Greece Geoffrey Pyatt, Remarks, Atlantic Council panel discussion, Thirty-second Greek Economic Summit, December 8, 2021, <https://gr.usembassy.gov/ambassador-pyatts-opening-remarks-at-the-32nd-greek-economic-summit-atlantic-council-discussion-paper/>.

44 US Department of States, Office of the Spokesperson, “Joint Statement on Third United State Greece Strategic Dialogue.”



U.S. Secretary of State Antony Blinken and Greece's Foreign Minister Nikos Dendias deliver remarks for the U.S.-Greece Strategic Dialogue at the State Department in Washington, U.S. October 14, 2021. (REUTERS/Jonathan Ernst)

energy to Europe. Ambassador Richard Morningstar, the founding chairman of the Atlantic Council's Global Energy Center, has highlighted the geostrategic challenge of the energy transition as the next theater of great power competition. As US officials underline the importance of secure

supply chains, Professor Maniatis noted that Greece can supply some of the rare earth metals, advanced materials, and critical minerals needed for the energy transition in a way that is both sustainable (via green mining and hydro-metallurgy) and geopolitically secure.<sup>45</sup>

<sup>45</sup> Comments made during an Atlantic Council closed workshop, July 14, 2021

## VI. Joint Focus on Regional Cooperation in the Eastern Mediterranean and Southeast Europe

From a geopolitical perspective, both countries seek stability for the region and see regional energy cooperation as a way to achieve greater energy security and efficiency, as well as foster peace and prosperity. Indeed, Greece and the United States share a joint sense of urgency in working together across the region—including the Eastern Mediterranean, the Western Balkans, in the Middle East and North African region—vis-à-vis Russia and China, and within the European and transatlantic institutions that Greece is a member of. The nations also are determined to enhance their close cooperation, as per their latest strategic dialogue statement by: “using all appropriate means at their disposal to safeguard stability and security in the wider region.”<sup>46</sup>

Hence, there is a strategic aspect to their energy partnership that aims to promote regional energy security and diversify energy routes and sources in order to strengthen and better integrate Southeastern Europe, including by connecting the Eastern Mediterranean to Europe. In their strategic dialogue, the United States and Greece also expressed their joint aim “to bolster cooperation through the 3+1 format . . . on energy issues, economic development, counterterrorism, and the climate crisis and associated humanitarian challenges.”

Congress also notes in its US-Greece Defense and Interparliamentary Partnership Act that it is U.S. policy to actively participate in the trilateral dialogue conducted among Israel, Greece and Cyprus, that it supports diplomatic efforts to deepen energy security cooperation among them, and encourages the private sector to make investments in energy infrastructure in the Eastern Mediterranean region.<sup>47</sup> For its part, Greece is keen to further strengthen the 3+1 format of cooperation, potentially turning it into a quad with the full participation of the United States.<sup>48</sup> This could also include a permanent secretariat, as well as other tools to drive innovation and regional

cooperation, while also helping it expand to include other regional partners.

For the energy-dependent Balkans, the United States and Greece both recognize the immediate national and energy security issues currently facing the countries of the region as they move toward net zero goals by 2050. These should not be mutually exclusive endeavors: the region needs the production and use of hydrocarbons as a medium-term solution while moving toward carbon neutrality as the ultimate goal. In that light, US officials have underlined the unique role Greece has played in breaking regional energy monopolies and facilitating energy investment in these economies. Given the dynamic change underway in Southeast Europe, some experts note that “the region’s concern about security and diversity of supply is now history . . . There is plenty of other gas available and it can reach the market and we’ve seen it in 2019-2020 and we’ll see it even more next year. There’s plenty of supply.”<sup>49</sup>

As the energy crisis is reminding policymakers of the leverage natural gas provides third parties, especially during the energy transition or in times of crisis, Ambassador Pyatt has praised Greece’s role “in reducing southeast Europe’s reliance on Gazprom and in building regional energy security,” and highlighted the projects that improve the gas infrastructure in Southeast Europe.<sup>50</sup> He recently singled out the Alexandroupolis FSRU, the Interconnector Greece Bulgaria (IGB), and the Greece-North Macedonia Interconnector as projects that the US government supports and wants to see completed. Indeed, that FSRU may address the lack of liquidity in the market to increase trading in the region, while complementing and enhancing the interconnectivity of the existing infrastructure.

Ambassador Pyatt also noted that the US administration will be looking for new opportunities, including around the use of the Trans-Balkan Pipeline, to supply gas to

46 US State Department, Office of the Spokesperson, “Joint Statement on Third United States–Greece Strategic Dialogue.”

47 Eastern Mediterranean Security and Energy Partnership Act of 2019, Title II in Further Consolidated Appropriations Act, Pub. L. 116–94, 133 Stat. 2534 (2020), <https://www.congress.gov/116/plaws/publ94/PLAW-116publ94.pdf>.

48 Remarks of a senior Greek official speaking on background with Greek media correspondents, Washington, October 14, 2021.

49 Kostis Geropoulos, “Europe Turns the Tables on Russian Gas,” *New Europe*, December 12, 2020, <https://www.neweurope.eu/article/europe-turns-the-tables-on-russian-gas/>.

50 Ambassador Pyatt, Remarks, Atlantic Council panel discussion, Thirty-second Greek Economic Summit.



The governments of the United States, the State of Israel, the Hellenic Republic, and the Republic of Cyprus meeting on March 20, 2019, in Jerusalem to affirm their shared commitment to promoting peace, stability, security, and prosperity in the Eastern Mediterranean region. (US Embassy in Athens. March 21, 2019)

even more of Eastern Europe, all the way up to Ukraine and Moldova.<sup>51</sup> With the TurkStream pipeline adding yet another route for Russian gas to Europe, the now empty Trans-Balkan Pipeline could be reversed to supply Azeri gas to Ukraine, which is in danger of losing its role as a transit state for Russian gas. Another option would be to follow up on a 2014 MOU for the construction of a vertical corridor to connect the national grids of Greece, Bulgaria, and Romania. Based on the IGB, this project would improve the diversification of supply in the Eastern Balkans with minimal extra infrastructure.

According to Congressional Research Service estimates, the Nord Stream system and the TurkStream pipeline would provide Russia with a capacity of more than 140 bcm a year to Europe and Turkey, nearly equaling Ukraine's total transit capacity of 146 bcm.<sup>52</sup> Even as the German government suspended the certification of the NordStream 2 pipeline in response to Russia's war in Ukraine, many analysts view TurkStream as a counter to the US-backed

Southern Gas Corridor that aimed to diversify the region's gas supplies from Russia. They caution that TurkStream's extension could deepen Russia's market dominance and leverage in some countries, especially where Russian-origin companies already have a significant economic footprint through energy assets.<sup>53</sup> As the TurkStream 2 project nears completion, it will soon be in direct competition with Azeri gas delivered via TAP and US LNG.

Dr. Theodoros Tsakiris, the special scientific adviser to the Greek minister for energy, noted that the projected increase in gas demand over the next ten years presents a tremendous opportunity for Greece to supply Southeast Europe, as long as this task is not left in the hands of Russian suppliers or the Turkish corridor alone. Indeed, Ambassador Morningstar suggested that TurkStream constitutes a threat to Greece's ability to send gas to the Balkans and suggested that Greece should try to ensure that TurkStream is compliant with the third energy package and EU regulations.<sup>54</sup>

51 Ambassador Pyatt, Remarks, Atlantic Council panel discussion, Thirty-second Greek Economic Summit.

52 Sarah E. Garding et al., "TurkStream: Russia's Southern Pipeline to Europe," Congressional Research Service, *In Focus*, IF1177, Version 5, Updated, May 6, 2021, <https://crsreports.congress.gov/product/pdf/IF/IF1177>.

53 Garding et al., "TurkStream."

54 The third EU energy package is a legislative package which specifies that pipelines and grids must work together to ensure the optimal management of EU networks. See "Third Energy Package," European Commission (website), accessed March 2022, [https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/third-energy-package\\_en](https://energy.ec.europa.eu/topics/markets-and-consumers/market-legislation/third-energy-package_en).



US Ambassador to Greece Geoffrey R. Pyatt, European Council President Charles Michel, Greek Prime Minister Kyriakos Mitsotakis, Bulgaria's Prime Minister Kiril Petkov, Prime Minister of North Macedonia Dimitar Kovacevski, Serbian President Aleksandar Vučić, and Mayor of Alexandroupolis Ioannis Zaboukis pose for a picture during a commencement event for the realization of a floating storage and regasification unit (FSRU) in Alexandroupolis, Greece, May 3, 2022. (REUTERS/Alexandros Avramidis)

The United States has also encouraged Greece to join the Three Seas Initiative,<sup>55</sup> an Atlantic Council proposal that has developed into a pioneering, Central European-launched and -led initiative, supported by both the United States and the EU, addressing the issue of connectivity in Central and Eastern Europe. The Council has argued that a secure, prosperous, and resilient Three Seas region is key to more closely connecting the countries of Central and Eastern Europe with the rest of the EU and the United States. The Three Seas Initiative has the potential to close

development gaps in the region by investing in energy, transport, and digital connectivity. Energy projects include investments in LNG terminals, the construction of gas interconnectors, and the synchronization of the electricity grids. The addition of Greece, with its mature projects in LNG terminals and interconnectors, would further diversify transmission routes and supply sources, enhancing the security of supply in the broader region by strengthening energy integration in Southeast Europe.

55 "The Three Seas Initiative," Congressional Research Service.

## VII. The Compelling Case for Electricity Interconnectors

**A** key area of focus for Greece and an opportunity for the bilateral energy partnership would be to facilitate regional cooperation in the Eastern Mediterranean to address supply concerns by building electricity interconnectors between Europe, Asia, and Africa. These can transmit electricity produced by a growing share of renewable sources of energy, thus spearheading the green recovery in a region that is particularly impacted by climate change and can be a “synergistic alternative” to gas interconnectors that allow for real-time energy transfer to markets.

One such project, the EuroAsia Interconnector, already enjoys European financing, while another, the Greece-Africa Power Interconnector, is approved by EU regulatory authorities and is part of the ten-year development plan of the European Network of Transmission System Operators for Electricity (ENTSO-E).<sup>56</sup> A third one, the Euro-Africa Interconnector, is also approved by EU regulatory authorities and has received political support from Egypt, Cyprus, and Greece. All have the benefit of creating new important corridors to bring an increasing percentage of green energy to Europe. In a recent development, Greece and Egypt have signed an MOU for a direct subsea cable interconnection,<sup>57</sup> building on recent technological progress in alternating current (AC) interconnections and Greece’s experience with building one of the longest interconnectors in the world to the island of Crete.

As a new corridor that helps link Israel and other US allies to Europe, the EuroAsia Interconnector is supported by the US administration. “We are supportive of connecting the distribution grids of mainland Europe to Cyprus and Israel via the EuroAsia Interconnector,” a State Department official wrote. “It is a cost-effective and flexible route that can be used not only for electricity but as a platform to deploy other renewable energy sources.”<sup>58</sup> In December, at the presentation of an Atlantic Council discussion paper ahead of this report, Ambassador Pyatt said: “We are also extremely supportive of the conversation that’s

happening between Greece and Egypt on electricity interconnection.”<sup>59</sup>

These transmission lines between countries require a great level of trust and cooperation, but once this is achieved, they are faster and easier to build than pipelines. Since they will be carrying electrons rather than hydrocarbon molecules, they may face fewer security complications than has been evident in the exploration of the region’s hydrocarbon resources, where Turkey is contesting the Republic of Cyprus’ right to develop its resources, and has ratified a disputed maritime treaty with the Government of National Accord of Libya that ignores the rights of Greek islands to a continental shelf, contrary to the United Nations Convention on the Law of the Sea. Still, for these interconnectors to proceed swiftly and smoothly, it is particularly important that the US government continues to signal to everyone in the region its support for these projects—including with the potential support of the US DFC, which has a mandate to support projects that contribute to regional energy integration and security (in accordance with its project selection criteria), and is actively looking for projects that support the energy transition.

Electricity interconnectors will bring an increasingly green source of energy to Southeast Europe and beyond to Central and Eastern Europe. As Europe and the global energy system transitions to green alternatives, electricity produced in the Eastern Mediterranean may help to provide, among other things, green energy to more European nations—this time in electrons.

According to EuroAsia Interconnector, the company undertaking the endeavor, 50 percent of the electricity carried by this interconnector is projected to be from renewable sources of energy by 2025, and eventually this percentage will rise to more than 70 percent. As it brings more renewable energy to European nations, this interconnector will also help increase the security of supply of the renewable energy being produced in Greece and Cyprus. It may also

56 The project, whose subsea route lays within the officially demarked Greece-Egypt Exclusive Economic Zone, was successfully included in ENTSOE TYNDP 2022 as project number 1048, 1048 – Greece - Africa Power Interconnector (GAP Interconnector) project sheet, Entsoe, <https://tyndp2020-project-platform.azurewebsites.net/projectsheets/transmission/1048>, last accessed April 29, 2022

57 “Greece, Egypt Sign Deal for First Subsea Power Link between Europe and Africa,” Reuters, October 14, 2021, <https://www.reuters.com/business/energy/greece-egypt-sign-deal-first-subsea-power-link-between-europe-africa-2021-10-14/>.

58 State Department Official, Response to Media Questions (via email), March 18, 2021; also reported elsewhere including by Patricia Claus, “US Throws Support Behind Greece in EuroAsia Interconnector Row,” *Greek Reporter*, March 19, 2021, <https://greekreporter.com/2021/03/19/us-throws-support-behind-greece-in-euroasia-interconnector-row/>.

59 Ambassador Pyatt, Remarks, Atlantic Council panel discussion, Thirty-second Greek Economic Summit.



increase the security of supply for Israel and allow it to take advantage of its own renewable energy export potential while supplying electricity in case of need in Europe.

Similarly, connecting Europe with Egypt would supply European markets with the huge renewable potential of not only Egypt but also the Gulf countries. Saudi Arabia, in particular, has agreed to create an interconnector with Egypt. Such an interconnector would give the European system added flexibility in the demand-strained winter months.

As Professor Maniatis noted at a workshop, broadening the intercontinental interconnectors to bring green energy to Northern Europe would be a great geopolitical opportunity. This could also take the form of a new electric highway: a South-North highway starting from Greece and crossing Bulgaria and Romania toward Germany. As he put it, “besides the pipeline diplomacy, we need a new ‘electric cable diplomacy’ that will account for the geopolitical instability of the energy transition.”<sup>60</sup>

These projects increase the green energy ambitions of a region that is still very dependent on hydrocarbons by creating hubs that help involved countries realize their renewable potential and reduce their carbon footprint. They may also facilitate the transition to green energy for the countries involved. Combining interconnections with other technological innovations, such as creating an electricity highway and linking them to energy-storage projects and investment in renewables in the region, would allow for optimal trade in energy across the European system, given the time differences between countries.

Still, energy experts note that completing the integration of electricity networks in Southeast Europe will require both sufficient long-term electricity storage projects and adequate cross-border and internal electricity interconnections. This means going beyond a second 400 kilovolt transmission line to Bulgaria, which is currently being developed, by quickly promoting similar lines with Albania, North Macedonia, and Italy.<sup>61</sup>

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<sup>60</sup> Professor Maniatis, Comments, (closed) Atlantic Council workshop on US-Greece energy policy cooperation, June 3, 2021.

<sup>61</sup> Confidential interviews conducted by the author with two sources, November 2021.

## VIII. Proposals for Driving US-Greece Partnership Forward to Achieve a Green Transition, Energy Security, and Regional Cooperation

**A**chieving energy security at a time of energy transition, and to the benefit of the region, will require a comprehensive energy strategy. Such a strategy must be based on a political commitment to even closer bilateral partnership. It must prioritize geopolitical considerations to incentivize regional cooperation, and push for solutions that institutionalize bilateral energy collaboration to develop and apply emerging renewable technologies.

Political commitment is needed to drive the energy transition for the wider region. This is a multifaceted task that requires ambitious international cooperation, including close energy partnerships between the United States and its closest regional allies, to implement innovative technology and business solutions, and increase regional efficiencies and energy security.

To that end, US and Greek diplomatic initiatives should include:

- a coordinated drive to include Greece in the Three Seas Initiative and add a fourth sea, the Aegean, and its LNG facilities as a valuable new corridor to Central Europe's energy network; and
- a more active role by the United States in the trilateral partnerships that have boosted energy cooperation in the Eastern Mediterranean, by potentially turning its 3+1 format of cooperation with Greece, Cyprus, and Israel into a quad that would deepen cooperation on energy to include hydrogen and energy storage solutions, and also expand its reach beyond energy, as conceived in the recently passed US-Greece Defense and Interparliamentary Partnership Act.

A geopolitical perspective is also paramount. The ongoing European energy crisis highlights the need to double down on the green transition, but also demonstrates the need for gas as a transition fuel (with a parallel focus on decarbonizing those gas supplies). Continued energy diversification

is as urgent as ever to provide energy security and address the tricky geopolitics of Southeast Europe, where gas markets are less interconnected and even more reliant upon Russia as a gas supplier. The green transition creates both new challenges and opportunities. Raw materials and rare earth metals need to be secured. Greece's aspiration to become an energy hub, including for renewable energy, has promoted regional cooperation and stability. Indeed, the United States has lauded Greece for its growing role as a regional energy hub.<sup>62</sup> But more can be done.

The United States should:

1. **Support projects that contribute to energy diversification** and complete the integration of the pipeline network in Southeast Europe, such as the IGB, which is set to become operational in 2022. Two more important energy projects that will further diversify regional energy supplies are the planned Greece-North Macedonia Interconnector and the FSRU in Alexandroupolis— heeding the calls of the EU to increase LNG capacity following Russia's invasion of Ukraine. These regional interconnectors would expand Bulgaria and Serbia's access to diversified gas supplies and, coupled with more storage facilities, would boost the emergency supply capacity in the region.
2. **Keep the taps open for US LNG to flow to Greece** and encourage booking long-term capacity to help Greece and the region address potential gas-supply problems. By expanding the LNG terminal in Revithoussa, US LNG quickly gained a 50 percent share of all LNG imports to Greece, which is building a second LNG terminal in Alexandroupolis with the necessary connections to supply the Balkans. Given the energy crisis, booking longer-term capacity from US suppliers would have both strategic and economic merits.
3. **Support all options for bringing Eastern Mediterranean gas to European countries** via LNG in the short to medium term and potentially via the East Med Gas

62 Elias Gerasoulis, "At Ahi Event, Amb. Pyatt Says US-Greece Relationship at 'All-Time High,'" American Hellenic Institute, December 21, 2021, <https://www.aheworld.org/press-releases-1/2021/12/15/at-ahi-event-amb-pyatt-says-us-greece-relationship-at-all-time-high>.



EU Commissioner for Energy Kadri Simson visits the LNG Terminal of Revithoussa. Pictured left to right are Secretary General of Energy and Mineral Resources of Greece, Alexandra Sdoukou; European Commissioner for Energy, Kadri Simson; Greek Minister of Environment and Energy, Kostas Skrekas; and DESFA's CEO, Maria Rita Galli. (DESFA)

Pipeline in the longer term. The latter is an ambitious European Project of Common Interest (PCI) that would offer a firm source of supply with long-term contracting and provide both a new corridor and a new source of energy to the EU and Southeast Europe at a time when Europe is seeking to limit its energy dependence on Russia. Yet as the high cost of the project suggests that it would need both political and financial support to materialize, an improved route and a hydrogen-ready design may help address the concerns of the US government.<sup>63</sup> Meanwhile, ExxonMobil's appraisal well in Glaukos could change the current "wait and see" dynamic on the part of multinationals in Cyprus. As the Greek government has reprioritized its own exploration program in response to the energy crisis, the potential size of the gas reserves south of Crete may also increase the viability of a pipeline.

If gas prices remain elevated, any of these developments would support building one. In the short term, however, the Eastern Mediterranean gas finds are bound to find their way to the market via the region's LNG terminals.

4. **Help increase energy storage** by supporting the development of storage facilities in Greece. New gas storage, such as the ongoing tender for the Kavala underground storage facility, would significantly improve Greece's energy security. In the face of high electricity prices, Greece called for the EU to develop strategic gas-storage facilities across Europe and to build up natural-gas reserves through a centralized European platform; both proposals were at least partly taken up in a European Commission draft directive following Russia's invasion of Ukraine.<sup>64</sup>

63 Hochstein, Discussion Hosted by CSIS; .

64 Ewa Krukowska, "EU Aims to Avert Another Natural Gas Storage Crisis Next Winter," *BloombergQuint*, February 21, 2022. <https://www.bloombergquint.com/markets/eu-plans-strategic-gas-storage-push-to-avoid-crisis-next-winter>.



PM Mitsotakis meets with US Climate Envoy Kerry on sidelines of Riyadh conference. (Dimitris Papamitsos/Greek Prime Minister's Office)

**5. Leverage Greece's ambitious green transition targets** and its position as a top producer of renewable energy to develop promising technologies, such as renewable hydrogen, which will contribute to decarbonization and may be exported from Southern to Central Europe. Beyond its own production, Greece is the logical entry point for blue and eventually green hydrogen,<sup>65</sup> produced in the Middle East and Northern Africa for distribution in the European market.

**6. Support electricity interconnectors** between Europe, Asia, and Africa to transmit an increasingly green share of electricity from Israel, Egypt, and beyond, opening the European market to renewable energy from a region that is particularly impacted by climate change. Those interconnectors can bring electrons produced by green energy to Southeast Europe and beyond via Greece. These should be complemented by completing the integration of electricity networks in Southeast Europe with more transmission lines, while

also upgrading the Greek transmission network in the mainland and building an offshore transmission network, which is necessary for renewable investments in the Greek islands to realize their export potential.

**7. Explore opportunities in Greece's nascent hydrogen economy**, as Greece is finalizing its National Hydrogen Strategy. An array of hydrogen projects (across the entire hydrogen value chain) includes the flagship White Dragon project in western Macedonia, which offers an innovative paradigm on how to drive a just transition from lignite to green energy. For green and blue hydrogen produced in the Middle East and in Northern Africa, Greece is the logical entry point for the European market. This is a prospect also supported by US Special Presidential Envoy for Climate John Kerry, who after a meeting with the Greek Prime Minister last October noted that Greece could be one of the hubs for blue hydrogen on its way from Saudi Arabia to Europe.<sup>66</sup> Along with US business engagement,

<sup>65</sup> Blue hydrogen is produced from natural gas, while green hydrogen is produced from renewable sources.

<sup>66</sup> John Kerry, Media Transcript of Statement, Meeting of October 25, 2021; see *Naftemporiki* [in Greek], <https://www.naftemporiki.gr/story/1793231/tz-keri-i-ellada-tha-mporouse-na-einai-diametakomistikos-stathmos-gia-to-prasino-udrogonο>.

the US Department of Energy’s Hydrogen Shot (and also its Long-Duration Storage Shot and the Carbon Negative Shot)<sup>67</sup> could also contribute to the growth of the hydrogen sector in Greece and the region.

8. **Institutionalize bilateral energy collaboration.** The United States should actively support regional cooperation by setting up the US-Eastern Mediterranean Energy and Security Partnership Act, and expand its reach to include renewable energy. It should also invite Greece as a partner country in its newly founded Net Zero World Initiative<sup>68</sup> to codevelop and support solutions in the region, and work with Greece in the context of Mission Innovation on the clean hydrogen, carbon dioxide removal, and net-zero shipping missions.<sup>69</sup>
9. **Deepen the partnership through a US-Greece Energy Center** and joint R&D strategy for renewable energy, which this report suggests would help Greece fully realize its potential in accelerating the green transition while benefiting bilateral trade and investment. The center would allow the two governments to take stakes in the development of emerging technologies and create a framework for promoting direct collaborations with the national laboratories administered by

the US Department of Energy for bilateral and multinational research on energy. The center could also foster business partnerships through a bilateral forum of energy investors to facilitate start-up incubation in the United States and Greece, or a registry of businesses that would promote innovative technologies in both countries. Based on an industry workshop and one-on-one interviews, the Greek private sector is keen to participate in joint research and technology projects, among them storage systems, hydrogen solutions, and the decarbonization of Greek islands.<sup>70</sup>

10. **Expand the bilateral strategic dialogue** to support the transition and achieve net-zero emissions by 2050, as this dialogue has been a central forum for discussing cooperation projects on energy. For instance, the recent cooperation between the Greek Ministry of Energy and the US Department of Energy to jointly develop a carbon capture utilization and storage (CCUS) regional concept in Greece underlines investor interest in the field, and could be replicated to spark cooperation in other sectors. The United States and Greece should also work closely together to identify projects of high priority and develop flexible and innovative solutions of financial support from official and other sources, including from the DFC.

67 The US Department of Energy Earthshots Initiative (“Shots”) aims to accelerate breakthroughs of more abundant, affordable, and reliable clean energy solutions within the decade to tackle the toughest remaining barriers to addressing the climate crisis. The Hydrogen Shot was the first Energy Earthshot to be launched on June 7, 2021, seeking to reduce the cost of clean hydrogen by 80 percent to \$1 per 1 kilogram in one decade. In September 2021, the second Earthshots Initiative to be launched was the Long Duration Storage Shot, which aims to reduce the cost of energy storage systems by 90 percent within the next decade. Similarly, the Carbon Negative Shot will seek to remove CO<sub>2</sub> from the atmosphere and durably store it at meaningful scales for less than \$100/net metric ton of CO<sub>2</sub> equivalent. See “Energy Earthshots Initiatives,” US Department of Energy, Office of Policy (website), accessed March 2022, <https://www.energy.gov/policy/energy-earthshots-initiative>.

68 “U.S. Launches Net-Zero World Initiative to Accelerate Global Energy System Decarbonization,” Department of Energy (website), November 3, 2021, <https://www.energy.gov/articles/us-launches-net-zero-world-initiative-accelerate-global-energy-system-decarbonization>.

69 Launched alongside the Paris Agreement in 2015, Mission Innovation is an intergovernmental platform to enable clean energy innovation through action-oriented cooperation between governments, public authorities, corporations, investors, and academia. Its various missions are public-private alliances to help achieve ambitious innovation goals.

70 Based on comments made during a roundtable discussion on industry insights at an Atlantic Council closed session on bilateral energy trade and investment, and regulations and financing, held July 14, 2021, and in various confidential interviews conducted by the author with industry sources in October and November 2021.

## IX. Putting Knowledge at the Heart of Bilateral Cooperation

Energy experts note that the pandemic has turned into a “fast-forward” scenario for the global energy industry, where what might have taken years to happen in the past has instead unfolded in a matter of months.<sup>71</sup> This is most pronounced in the United States, where convergence in the energy industry is accelerating as the oil and gas sector is expanding in the electricity value chain, transportation is focused on electrification, and demand for renewable energy rises. A mature market for power purchase agreements (PPAs) that helps energy companies manage price volatility, the growth of battery storage, and new technologies to produce and store hydrogen in particular have all facilitated this process.

There is an opportunity to transfer new technologies being developed in the United States through knowledge-exchange joint ventures between firms and academic institutions on innovations that could also disrupt the Greek energy sector. Analysts note that the US market is particularly mature in the use of PPAs, with storage contracts also serving as a hedge that complements existing agreements and reducing the cash flow volatility of a buyer’s energy portfolio.

Greece could capitalize on US experience with and know-how on PPAs, identifying new opportunities in the local market that will enhance the energy transition and boost the market penetration of renewable energy through financial clauses, regulatory framework, and infrastructure.<sup>72</sup> Similarly, the growth of battery storage has picked up pace significantly since 2015 in the United States, and today the installed battery-storage capacity has reached a record high. Lithium-ion is the most prolific battery technology in the US market. Greece needs to adopt such new technologies through investments, capitalizing upon US expertise to fill any gaps that occur from decarbonization. Finally, US experience and know-how in tackling the challenge of producing and storing hydrogen is particularly relevant to Greece to achieve its energy transition.

For its part, local industry is concerned about the projected high electrification needs by 2030 and stresses the need for wide adoption of innovative technologies, noting the role of information technology and the need for “both realism and support.”<sup>73</sup> US companies could help with this process, and Ambassador Pyatt noted increased interest on the part of US companies in innovative clean energy technologies, storage solutions, smart technologies, and e-mobility.<sup>74</sup> US companies like GE, Tesla, and Blink Charging are expanding their footprint in Greece, while the Boston-based Advent Technologies, which has roots in Greece, is advancing hydrogen fuel cell technologies to drive energy storage, mobility, and industry.

Another opportunity for knowledge-based cooperation lies in shipping. To help achieve the global decarbonization goals set by the International Maritime Organization, US energy companies and research institutions could engage their Greek counterparts through joint ventures, increased collaboration, and knowledge transfer. As Greek industry experts note, they may even work toward developing the energy source or fuel of tomorrow for the shipping industry.<sup>75</sup> Indeed, given its strong ties to the United States, Greek shipping may be a valid candidate to work with US institutions to lead these efforts and spearhead future technologies such as hydrogen integration—including in the context of Mission Innovation’s net-zero shipping mission.

Decarbonizing while maintaining a competitive edge is the biggest issue for the global shipping industry, and in particular for Greece, which is by far the world’s largest ship-owning nation in carrying capacity.<sup>76</sup> The Greek government argues for the protection of the competitiveness of European shipping by ensuring the fair enforcement of the emissions trading system in the industry, and targeting those who pollute. It has also put forward proposals for the decarbonization of maritime transport through investment in technological innovation. Greek shipowners have an important role to play on that front, as they control 17.64

71 Confidential interviews conducted by the author with industry sources, November 2021.

72 “Physical and Virtual PPA Structure, Buy-side and Sell-side Drivers,” Deloitte Slide Presentation, December 17, 2021

73 Confidential interviews conducted by the author with industry sources, October 2021.

74 Ambassador Pyatt’s Remarks at AmCham New Year’s Reception, February 3, 2022 (available at the U.S. Embassy in Greece website)

75 Confidential interviews with Greek industry experts, November-December 2021.

76 As of January 1, 2021; see United Nations Conference on Trade and Development (UNCTAD), *Review of Maritime Transport 2021*, Table 2.4, 62, [https://unctad.org/system/files/official-document/rmt2021\\_en\\_0.pdf](https://unctad.org/system/files/official-document/rmt2021_en_0.pdf).

percent of global deadweight tonnage (dwt), which in 2021 was 373 million dwt.<sup>77</sup> As in previous eras of disruption in the industry, like the introduction of the double hull tankers in response to the 1989 Exxon *Valdez* maritime oil spill, they would benefit by leading the forthcoming change in

the sector. By account of their size and global reach, they are in a good position to drive the global efforts for decarbonization, as suggested by Olga Khakova, the associate director of European energy security at the Atlantic Council's Global Energy Center.

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<sup>77</sup> UNCTAD, Review, Table 2.4. Deadweight tons is a measure that calculates how much weight a ship can carry.

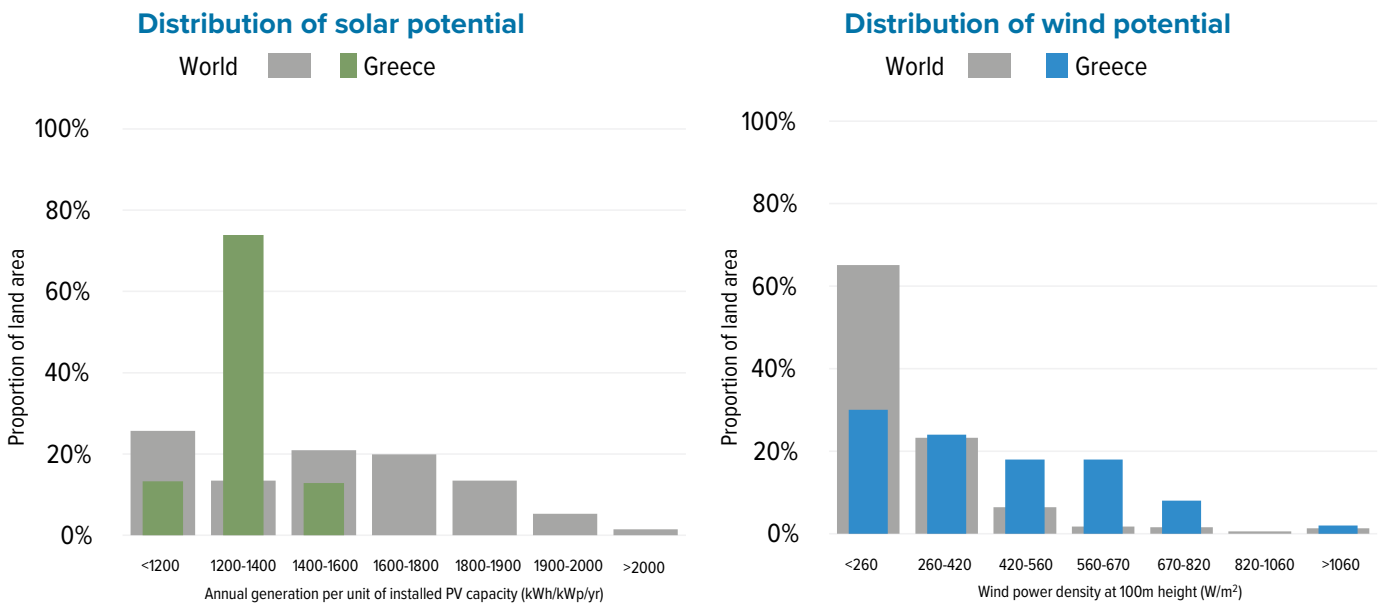
## X. Investments, Geopolitics, and the Role of the DFC during the Energy Transition

Given Greece’s renewable energy potential, some US companies are already expanding their presence in the country. The Greek government has set the stage for large pilot projects in offshore wind farms. Ambassador Pyatt noted this is an area of opportunity for US companies.<sup>78</sup> The Greek government’s forthcoming climate legislation, which is a step closer to completion following the public consultation phase, is seen as key to achieving the ambitious goals for new wind capacity by 2030—even as environmentalists argue that it misses a historic opportunity for Greece to become a climate champion.<sup>79</sup> For their part, industry experts say the progressive saturation of viable wind sites on the Greek mainland necessitates that a sizable portion of the new wind capacity be developed either offshore, near-shore, or at floating wind parks in the Aegean and Ionian Seas.<sup>80</sup>

Private equity firms are showing interest in investing in large infrastructure projects. For instance, BlackRock Inc. has invested in two key infrastructure projects: the Interconnector Greece-Bulgaria and the Alexandroupolis FSRU. As a private equity executive, Neil Robert Brown, managing director at KKR and a nonresident senior fellow at the Atlantic Council, noted at the Southeast Europe Energy Forum in Thessaloniki last September that such interest has been catalyzed by the DFC’s engagement in the region.<sup>81</sup>

The European Energy Security and Diversification Act of 2019 directs the DFC to work in Europe and Eurasia on energy-related projects, with the goal that its financing guarantees make such investments more attractive for US investors. In its recently passed US-Greece Defense and Interparliamentary Partnership Act, the US Congress

### RENEWABLE RESOURCE POTENTIAL



Source: International Renewable Energy Agency (IRENA)

78 Ambassador Pyatt, Remarks, Atlantic Council panel discussion, Thirty-second Greek Economic Summit.

79 “Greece Unveils Draft National Climate Law,” World Wildlife Fund, November 30, 2021, <https://www.wwf.gr/?5320941%2FGreece-unveils-draft-national-climate-law>.

80 Confidential interview conducted by the author with Greek industry experts, November 3, 2021.

81 Neil Robert Brown, Atlantic Council panel (comments), Southeast Europe Energy Forum, Thessaloniki, September 10, 2021.





US Ambassador to Greece, Geoffrey Pyatt, delivering his remarks at AmCham's 30th Annual Greek Economic Summit. (US Embassy in Athens. December 3, 2019)

specifically asks the DFC to consider supporting private investment in strategic infrastructure projects in Greece, including in shipyards and ports that contribute to the security of the region.<sup>82</sup> “The United States and Greece are [heading] full steam ahead to accelerate maritime infrastructure investments to support these critical regional energy projects,” Ambassador Pyatt has said. “The US International Development Finance Corporation has an important role to play here and has been a key partner based on US congressional authorizations that have allowed it to continue discussions with American bidders on the ports of Alexandroupolis and Kavala.”<sup>83</sup>

This is a view shared by the Greek private sector: in a closed workshop,<sup>84</sup> some participants noted that US support for Greek energy aspirations should include funding by the DFC to take advantage of the huge renewable energy potential of both Greece and the Eastern Mediterranean, noting the benefits it would have for the region's energy security during the energy transition. Indeed, given US support for regional projects that will help advance interconnections to bring Eastern Mediterranean energy to Europe, there may be a role for the DFC to support electricity interconnectors too. Securing the ownership control of such projects is key to the future geostrategic direction of the wider region.

This has been a key consideration for Congress in legislation to support US engagement in the region. In his January 2022 nomination hearing to be ambassador to Greece in front of the Senate Foreign Relations Committee, George Tsunis was asked about Chinese influence in the wake of state-owned China COSCO Shipping Group's investment in the port of Piraeus. Noting that China was the only interested investor at the time of that privatization and that its influence may also be exerted by controlling interconnectors and electricity grids, he said that “we need to show up,” and added that “as a businessperson I understand what it is to compete aggressively in business transactions.”<sup>85</sup>

Local industry executives have been sounding the alarm as well. A representative of a company developing transmission infrastructure to connect islet wind farms to the Greek power grid said in an interview for this report that its project “is receiving great attention from international investors and technology suppliers who are willing to either supply equipment or coinvest in these endeavors.”<sup>86</sup> A great deal of such investor attention is from Asian companies, primarily Chinese, for various strategic infrastructure projects including the interconnection project between Egypt and Greece (Greece-Africa Power).

As another business executive put it, Greece is already being transformed into “a laboratory for the green transition.” After the challenging years of the 2009-16 Greek financial crisis, he observed, Greece is finally attracting international attention for the right reasons. In the era of energy transition, he added, geopolitically and energy

82 US-Greece Defense and Interparliamentary Partnership Act of 2021, an amendment to the National Defense Authorization Act for Fiscal Year 2022, Pub. L. No. 117-81, 135 Stat. 1541 (2021).

83 US Embassy & Consulate in Greece, “Ambassador Pyatt's Keynote Remarks, Thirty-second Greek Economic Summit, and Fireside Chat with Nikolaos Bakatselos, President, Hellenic American Chamber of Commerce, Athenaeum Intercontinental Hotel, Athens, December 7, 2021,” <https://gr.usembassy.gov/ambassador-pyatts-keynote-remarks-at-the-32nd-greek-economic-summit-and-fireside-chat-with-nikolaos-bakatselos-president-amcham/#:~:text=The%20United%20States%20and%20Greece%20are%20also%20full,investments%20to%20support%20these%20critical%20regional%20energy%20projects.>

84 In the context of this report, an Atlantic Council closed session on bilateral energy trade and investment, and regulations and financing was held on July 14, 2021, and included a roundtable discussion on insights from the industry.

85 Constantine Sirigos, “US Ambassador to Greece Nominee George J. Tsunis Testifies Before Senate,” *National Herald*, January 13, 2022, <https://www.thenationalherald.com/tnh-live-streaming-tsunis-to-appear-before-senate-tomorrow-for-confirmation/>.

86 Confidential interview conducted by the author, October 25, 2021.

wise, “everything is happening here.”<sup>87</sup> Even tiny islands are turned into incubators for future technologies, taking advantage of the country’s expertise in managing small, isolated networks that are using advanced algorithms for their stability or hybrid renewable projects such as the ones in the Greek islands of Ikaria and Tilos.

Realizing that the world has entered a technology and investment race that will define the winners of the future, the

Greek government is trying to restructure its economy to attract such investments. For its part, the US administration has the competitive advantage of being able to partner with its allies in shaping the energy transition for their joint benefit. Indeed, working together with well-positioned and strategically aligned partners such as Greece to address climate change may not only lead to new energy projects and technological innovations, but also help secure transatlantic leadership into the twenty-first century.

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<sup>87</sup> Confidential interview conducted by the author, October 19, 2021.

# Appendix

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## Workshops, Interviews and Public Discussions on the Atlantic Council Report: “US-Greece Energy Cooperation: Squaring the Energy Transition Cycle”

### I. Workshops

#### June 3, 2021: Inaugural Workshop on Energy Policy

Nikolaos Bakatselos, president, American Hellenic Chamber of Commerce

Benjamin Haddad, director, Europe Center, Atlantic Council

#### Bilateral Perspective

Katerina Sokou, nonresident senior fellow, Europe Center, Atlantic Council

US Amb. Geoffrey R. Pyatt, ambassador of the United States to the Hellenic Republic

Amb. Alexandra Papadopoulou, ambassador of the Hellenic Republic to the United States

#### Energy Policy Priorities

H. E. Kostas Skrekas, minister of environment and energy of the Hellenic Republic

Joshua Volz, director of European and Eurasian affairs, Department of Energy

#### Green Recovery

Alexis Patelis, economic adviser, Office of the Prime Minister of the Hellenic Republic

#### View from Congress

Damian Murphy, staff director, US Senate Foreign Relations Committee

#### Expert's Insight

Yannis Maniatis, former minister of environment, energy and climate change of Greece; associate professor, University of Piraeus

Amos Hochstein, currently the State Department's senior adviser for global energy security; then fellow, Geopolitics of Energy Project, Belfer Center, Harvard Kennedy School

#### Concluding Remarks:

Olga Khakova, currently Deputy Director, Global Energy Center, Atlantic Council; then Associate Director of European energy security, Global Energy Center, Atlantic Council

#### July 14, 2021: Strategy Session on Bilateral Energy Trade and Investment, Workshop on Regulation and Financing

#### Opening Remarks

Nikolaos Bakatselos, president, American Hellenic Chamber of Commerce

Amb. Richard Morningstar, founding director and chairman, Global Energy Center, Atlantic Council

#### Expanding Bilateral Trade and Investment in Energy and the Green Transition

Katerina Sokou, nonresident senior fellow, Europe Center, Atlantic Council

US Amb. Geoffrey R. Pyatt, US ambassador to the Hellenic Republic

Alexandra Sdoukou, general secretary for energy and mineral resources

David Livingston, special adviser, US Department of State

#### Regulation and Financing to Support Regional Cooperation

Olga Khakova, currently Deputy Director, Global Energy Center, Atlantic Council; then Associate Director of European

energy security, Global Energy Center, Atlantic Council

Athanasios Dagoumas, president of the Greek Regulatory Authority for Energy

Demetrios Papathanasiou, global director of the World Bank's extractives global practice

Dan Byers, vice president for policy, US Chamber of Commerce's Global Energy Institute

### **Industry Insights**

Konstantinos Eleftheriadis, Deloitte Greece partner

George Pechlivanoglou, chief technology officer, Eunice Energy

Harry Sachinis, chief executive officer, Athens Water Supply and Sewerage Company

Maria Rita Galli, chief executive officer, Hellenic Gas Transmission System Operator (DESFA)

### **Concluding Remarks**

Yannis Maniatis, former minister of environment, energy and climate change of Greece; associate professor, University of Piraeus

## **September 29, 2021: Roundtable on the Geopolitics of Energy and Energy Transition in Southeast Europe and the Eastern Mediterranean**

Nikolaos Bakatselos, president, American Hellenic Chamber of Commerce

Benjamin Haddad, director, Europe Center, Atlantic Council

Amb. Alexandra Papadopoulou, ambassador of the Hellenic Republic to the United States

Erika Olson, deputy assistant secretary, Office of Southern European Affairs, State Department

Thanos Dokos, national security adviser, Office of the Prime Minister of the Hellenic Republic

Katerina Sokou, nonresident senior fellow, Europe Center, Atlantic Council

Dr. Theodore Tsakiris, special scientific adviser, Office of the Minister of Energy of the Hellenic Republic

Joshua Volz, director of European and Eurasian affairs, US Department of Energy

Olga Khakova, currently Deputy Director, Global Energy Center, Atlantic Council; then Associate Director of European energy security, Global Energy Center, Atlantic Council

Amb. Richard Morningstar, founding director and chairman, Global Energy Center, Atlantic Council

Yannis Maniatis, former minister of environment, energy and climate change of Greece; associate professor, University of Piraeus

Dr. Matthew Zais, nonresident senior fellow, Scowcroft Middle East Security Initiative, Atlantic Council; former principal deputy assistant secretary, Office of International Affairs, US Department of Energy

Harry Sachinis, chief executive officer, Athens Water Supply and Sewerage Company

## **October 18, 2021: Regional Workshop on Energy Innovation**

Katerina Sokou, nonresident senior fellow, Europe Center, Atlantic Council

Christos Sofianopoulos, first counselor, Embassy of the Hellenic Republic to the United States

Oded Rose, CEO, Israel-American Chamber of Commerce

John Georgoulas, board director, American Chamber of Commerce in Cyprus

Louiza Papageorgiou, board director, American Chamber of Commerce in Cyprus

Elias Spirtounias, executive director, American Hellenic Chamber of Commerce

Kostas Andriosopoulos, chairman, Energy Committee, American Hellenic Chamber of Commerce

Ofir Gomeh, CEO, Capital Nature

## II. Interviews

### September-December 2021: Interviews with the private sector

Interviews with senior executives from Deloitte Greece, Hellenic Gas Transmission System Operator (DESFA), Energean PLC, Eunice Energy Group, EuroAsia Interconnector, EYDAP (Athens Water Supply and Sewerage Co.), Gastrade SA, MAS SA, Mytilineos SA, Gek Terna Group, Titan Cement Group, and Viohalco Group.

## III. Public Events

### September 10, 2021: Update on the Atlantic Council report during the Southeast Europe Energy Forum in Thessaloniki, organized by the American Hellenic Chamber of Commerce

Katerina Sokou, nonresident senior fellow, Atlantic Council

Olga Khakova, currently Deputy Director, Global Energy Center, Atlantic Council; then Associate Director of European energy security, Global Energy Center, Atlantic Council

Yannis Maniatis, former minister of environment, energy and climate change of Greece; associate professor, University of Piraeus

Neil Robert Brown, managing director, KKR; nonresident senior fellow, Atlantic Council

### December 8, 2021: Public presentation of the preliminary findings of the report during the Greek Economy Summit in Athens, organized by the American Hellenic Chamber of Commerce

Amb. Geoffrey Pyatt, ambassador of the United States to Greece

Katerina Sokou, nonresident senior fellow, Atlantic Council

Yannis Maniatis, former minister of environment, energy and climate change of Greece; associate professor, University of Piraeus

## About the Author

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Katerina Sokou is the Washington DC correspondent for SKAI TV and Greek daily newspaper Kathimerini, where she is also a columnist, focusing on transatlantic relations, foreign policy and financial diplomacy (2013-). She has been a nonresident senior fellow at the Europe Center of the Atlantic Council since 2019.

As a visiting scholar at George Washington University's Elliott School of International Affairs (2017-2018), she researched the US role in the Greek debt crisis and its impact on bilateral relations, presenting her research in universities across the U.S. and Greece. Before that, she was a member of the editorial board and a contributor at the Washington-based European Institute (2016-2017).

Katerina majored in History (BA with First Class Honors, University of Ioannina, Greece) and holds postgraduate degrees in International Studies (MA, University of Warwick, UK) and in Journalism from Columbia University, where she was a Knight-Bagehot Fellow in Economics and Business Journalism (2012-2013).

She started her career as a financial reporter at To Vima Athens newspaper, covering Greece and the Eurozone since the introduction of the Euro, and was International Financial News editor at Kathimerini during the global financial crisis. She covered extensively the Greek financial crisis, interviewing economists and policy-makers and providing commentary and reporting for news media in the U.S. and Europe.

At the course of her reporting, she has corresponded from Brussels and Strasburg on EU policies, from China on Chinese investments in Europe, from Lithuania and Slovenia on EU enlargement, from Denmark on Europe's social model, from the U.K. on Brexit, from Egypt on EU's neighborhood initiatives and from Italy, Switzerland and Germany on European business. She speaks Greek, English, French, and has studied German and Turkish.



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