Energy Transition Geopolitics in the Eastern Mediterranean and Prospects for a Green Energy Dialogue in Divided Cyprus

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ENERGY TRANSITION GEOPOLITICS IN THE EASTERN MEDITERRANEAN AND PROSPECTS FOR A GREEN ENERGY DIALOGUE IN DIVIDED CYPRUS

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FOREWORD

The Report Series aims to explore the Eastern Mediterranean as a distinct geopolitical space in the context of global and regional transitions. It conceptualizes the Eastern Mediterranean’s new geopolitical identity both historically and theoretically and looks at its security and politico-economic prospects. At the same time, it tracks the main challenges that regional states face, and attempts to re-imagine the patterns of conflict and cooperation by examining the potential of regionalism and inter-state cooperation in various sectors. In doing so, the series makes recommendations about the way forward in addressing important obstacles to further regional cooperation and with regard to the strategy that could be followed towards designing a viable and sustainable regionalism project in the Eastern Mediterranean. The series begins with the conceptualization of the Eastern Mediterranean as a region and the specific sector of the environment as an entry point to discussing a more expanded regional cooperation. It then moves to other policy sectors and matters pertaining to the Eastern Mediterranean state policies and interests as well as to the role of greater powers.

Dr. Harry Tzimitras
Director, PRIO Cyprus Centre
INTRODUCTION

Fossil fuels have long shaped global energy geopolitics, and from the early 20th century have also been a determining factor in conflict and cooperation in the international arena. Coal was the main driving force of British hegemony in the 19th century, while later, it was the control of oil that played a major role in the establishment of American hegemony. Today, we are on the verge of another major transformation. Many expect the 21st century to be marked by a renewables-led global energy transition. A carbon-neutral energy system is anticipated as a global response to the threat of climate change—an idea boldly stated in the historic Paris Agreement. It is in this context that developed and developing countries have, for the first time, recognized the scale of the risks and impact of climate change. In response, they have agreed to maintain the increase in global average temperature to well below 2°C above pre-industrial levels and to limit the temperature increase to 1.5°C above pre-industrial levels. An Intergovernmental Panel on Climate Change (IPCC) report warned of the scale of irreversible damage to the vital ecosystem in case of failure to limit the temperature rise to a maximum of 1.5°C. While confirming the Paris Agreement, the COP26: Glasgow Climate Pact restated the urgency of the challenge and the need for greater emission reduction targets to maintain temperature increase at 1.5°C. The pact also authorized long-term financing to support the transition in developing countries.

Advancements in low-carbon technologies, namely solar and wind power generation, power storage technologies, and electric vehicles are the key drivers of the global energy system transformation. Since 2019, the world has seen extraordinary lockdown measures to contain the spread of Covid-19, with unprecedented consequences for world economies and energy markets, especially those of oil and gas. Yet, despite the challenges of the pandemic, in 2020, renewable energy use rose by 3 percent in global terms while the overall demand decreased for all other fuels. It is important to note that 29 percent of the global electricity generation came from renewables in 2020 and was considerably higher than the previous year’s 27 percent.

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1 Paris Agreement, 2015, Article 2.
2 IPCC, 2018.
3 Glasgow Climate Pact, 2021.
4 UNFCCC, 2021.
5 IEA, 2021.
6 IEA, 2021.
Low-cost following the Covid-19 crisis; but if recovery strategies incorporate more green technologies, the transition can be accelerated. Thus, the effects of the pandemic on global energy transition remain to be assessed. In a similar vein, the repercussions of the current Russia-Ukraine Crisis on economies and energy markets will inevitably affect fossil fuel market dynamics worldwide. The transition was challenging even before the Russian military operation in Ukraine; now, the United States (US) is planning to increase its oil and gas output, while new investments are on the agenda in the North Sea to reduce dependence on Russian oil and gas. A green response to the crisis is strategically on the table for the EU, but its ultimate success remains to be seen (Hook and Hume, 2022).

The large-scale transformation of the global energy system has already begun despite these setbacks and will have profound geopolitical implications. The Eastern Mediterranean is undergoing important changes as well. And although climate change has been reported as faster than the global trends in all subregions of the Mediterranean basin, on land and in the sea (Vizoso, 2021,13), regional political cooperation is far behind in introducing policies such as carbon pricing and government regulations.7 Annual mean temperatures are already 1.5°C higher than during pre-industrial times across the region. In a high greenhouse gas emission scenario, these figures are expected to increase until 2100 by a further 3.8 to 6.5°C.8 There will be more heat waves on land and in the sea across the Mediterranean basin, greater seawater acidification, an accelerated rise in sea levels (projected to be more than 1 meter by 2100), less rainfall, more water shortage problems, more desertification, and lower agricultural production.9 Other environmental challenges, such as marine pollution in the Mediterranean Sea, are further exacerbating climate change in the basin.10

The current level of Mediterranean emissions is nearly 6 percent of global greenhouse gas emissions11, and this calls for an accelerated energy transition and reorganization of the energy sector (Drobinski, et al. 2020, 268). Yet many countries in the Mediterranean region have less than efficient/satisfactory emissions policies, and the policies differ within the region; e.g., some eastern and southern rim countries fall well behind northern rim countries in introducing decarbonization strategies. And while the EU sustainability and decarbonization policies play a significant role in northern rim countries,12 there are no sufficient legal instruments or platforms in the Eastern Mediterranean to tackle the problem holistically through environmental, energy, or climate-related cooperation.13

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7 MedECC, 2020, 14.
8 MedECC, 2020, 14.
11 MedECC, 2020, 27.
12 EC, 2019.
13 EEA, 2020, 44.
This report takes stock of region-specific opportunities with reference to the potential role of interdependence through the creation of cooperative island-wide and regional linkages in Cyprus and in the Eastern Mediterranean. Can physical interconnections via infrastructure links become channels for cooperation and coexistence in Cyprus? Can the technical aspects of energy transition result in a learning process that in turn can change attitudes about cooperation? The report addresses these questions through an analysis of the policy options/choices for technology cooperation with a geopolitical impact, each on a specific level related to the clean energy transition, peace, and cooperation in Cyprus.

The first section discusses the global energy transition and introduces the conceptual-theoretical framework. The second section examines how geopolitics comes into the picture by considering old and new paradigms of regional geopolitical dynamics. The next section positions divided Cyprus in its ever-changing regional and global environment. In the context of the new geopolitics of clean energy transition, this section investigates the efforts for climate change adaptation and decarbonization of the energy system on both sides of the divide and outlines priorities and major areas of interest. The fourth section lays out prospective areas of cooperation, policy instruments on differing forms of infrastructure, research and development, and other forms of collective action for climate change adaptation as well as for the decarbonization of the island’s energy system. The final section concludes the report by indicating possible areas of cooperation across the border.

14 In 1960, the Republic of Cyprus (RoC) was established as an independent bi-communal republic primarily made up of Greek-speaking Orthodox Christians (Greek Cypriots) and Turkish-speaking Muslims (Turkish Cypriots). In 1963, nationalist movements led to inter-ethnic violence between the two communities. In 1974, ethnic conflict caused further troubles where several thousands of Cypriots from both communities were killed, went missing and were displaced. The island has been divided into two parts by an UN-controlled buffer zone since then and the situation is identified as the Cyprus Problem. The Greek-Cypriot administration, which is also known as the Republic of Cyprus (RoC), is to the south of the UN buffer zone. The Turkish-Cypriot administration, which unilaterally established itself as the Turkish Republic of Northern Cyprus (TRNC) in 1983, lies to the north of the buffer zone. The TRNC is not recognized by any state other than the Republic of Turkey and is identified as a de-facto state. Formal negotiations in relation to the settlement of the Cyprus Problem have failed over the years. Therefore, creating some channels of dialogue between the two communities is extremely important for peace and the prosperity of the island as a whole.
GLOBAL ENERGY TRANSITION AND COOPERATION

This section describes the so-called global energy transition and discusses the conceptual/theoretical links between this transition and cooperation. There are noteworthy analyses on individual aspects of energy transition, such as the geopolitics of renewable energy (Gielen et al. 2019; Hache, 2018; O’Sullivan et al. 2017; Overland, 2019; Scholten, 2018; Scholten and Bosman, 2016), energy transition and economic growth\(^{15}\), the role of minerals and metals for clean energy transition (Bazilian, 2018; De Ridder, 2013; Neill and Speed, 2012), and the governance of global energy transition (Andrews-Speed, 2016; Goldthau, 2011; Goldthau, 2017; Kern and Rogge, 2016; Roehrkasten et al. 2016; Van de Graaf, 2013). There is also research on specific countries/regions, mainly: Europe (Bressand, 2012; Eyl-Mazzega and Mathieu, 2019; Lombardi and Gruenig, 2016); the US (Pascual, 2015); Russia (Makarov, et al. 2017); and MENA (Goldthau and Westphal, 2019; Griffiths, 2017; Luomi, 2015; Luomi, 2018; Tagliapietra, 2019; Weatherby, et al. 2018). This literature generally highlights the nature of renewables in terms of what is regarded as their fundamental differences from fossil fuels, which in turn have different geopolitical consequences in many respects. In renewable energy, the important factors are technology, relative price, and cost of transport—as opposed to ‘natural’ comparative advantages such as geographical concentration. Unlike fossil fuels, renewables are not concentrated in one specific geographic location, and they function in the form of flows rather than stocks, as do fossil fuels. Thus, in comparison, it is more difficult to deplete and disrupt the energy flows of renewables than those of fossil fuels.

In global terms, fossil fuel-rich countries, namely the US, Russia, Saudi Arabia, Canada, Australia, Venezuela, Brazil, Mexico, Iran, and Iraq among others, are also the countries that are largely shaping the clean energy transition. In a decarbonized future they would have much to lose. If their fossil fuel reserves are left untapped due to climate change concerns, they will in effect lose major capital. Their geopolitical advantages will be lost as access to zero-carbon energy sources such as wind, solar, and hydro are relatively more globally diffused.

\(^{15}\) IRENA, 2016; OECD, 2017.
Which countries hold greater potential in the deployment of new renewable technologies? To answer this question, we must first understand that high technological potential for renewable energy generation appears to be essential for a country to become a major exporter of renewable energy, for example, green electricity. Second, countries that have the minerals that are critically important in renewable energy technologies will have enhanced geopolitical significance. For instance, copper for electricity grids is highly essential, while zirconium is one of the most significant minerals for the nuclear industry. The transition from fossil fuels to renewables is also related to access to certain critical metals, namely lithium, cobalt, and rare earth elements.

Lithium and cobalt are important in the production of batteries for electrical vehicles and electricity storage facilities; such batteries enable electrical systems to function better under conditions of intermittent solar and wind power. The rare earth elements neodymium and dysprosium are important for the powerful magnets used in wind turbines. Furthermore, platinum group metals are vital in producing high-efficiency solar cells. Chile and Argentina are going to emerge as strategic because of their lithium reserves. The Democratic Republic of the Congo will likewise enhance its geopolitical significance with cobalt, and Inner Mongolia in China will become important for its rare earth elements. In the bigger picture, China is the world’s leader in renewable technological innovations and stands at the forefront of the clean energy transition. It is the largest producer, exporter, and installer of solar panels, wind turbines, batteries, and electric vehicles.

New infrastructure links and new interdependencies have already evolved alongside one another in the advent of renewable energy deployment, particularly in the context of electric grids. These new interdependencies can be seen in the context of a reconfiguration of the global order into new alliances and trade flows, and in the creation of new grid communities. Increased funds and investments for renewable energy projects, more concentration on renewables and hydrogen in foreign energy strategies, alongside the security of fossil fuel imports (e.g., the creation of the International Renewable Energy Agency [IRENA] in 2009 as an intergovernmental organization to support countries in their clean energy transition), are further indications of the transition. More focus on technological cooperation is likely to have a geopolitical impact. New geographies of connections and dependencies will be created via regional grids. Developing domestic renewable capacities and developing greater integration with neighbouring countries through grids can be seen as two of the main dynamics of the transition to renewable energy. The trade of electricity will be more underscored and regional energy markets will become more significant than the global energy markets of the fossil fuel era.

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16 As an example, OPEC’s importance is likely to decline in face of the International Solar Alliance [ISA]’s increasing solar diplomacy. The creation of the Global Geothermal Alliance and Mission Innovation can be seen in the same vein.
Controlling regional grid infrastructures such as power lines and storage facilities has already become an asset for projecting global influence and power in world politics. By way of illustration, the Belt and Road Initiative\textsuperscript{17} and the Global Energy Interconnection are two Chinese-led strategic global plans for infrastructure development, aiming to create greater cross-national and regional connectivity (Chatzky and McBride, 2020; Downie, 2020). In a similar vein, some other notable infrastructure and connectivity projects are the Free and Open Indo-Pacific\textsuperscript{18} strategies of Japan, the United States, and India; Connectivity 2025\textsuperscript{19} of the Association of Southeast Asian Nations (ASEAN); and the EU Strategy on Connecting Europe and Asia.\textsuperscript{20} Some noteworthy examples of regional power grids are the ASEAN power grid in Asia; subregional power pools in Africa; SIEPAC in Central America; and the Gulf Cooperation Council power grid in the Middle East. Furthermore, there are also important proposals for renewable energy super grids such as the Asia Super Grid, the Desertec project, and the North Sea Offshore Grid.

**Energy Transition, Interrelatedness, and Cooperation**

Does energy transition generate opportunities for cooperation? What opportunities does the clean energy transition offer in regard to the security and stability of states and communities? In an ever-globalized world, actors and systems of interrelationships are highly intertwined. Beyond interconnectedness, this creates interdependencies where the needs and values of one party are contingent upon the behaviour of others. The concept of interdependence assumes that the international system functions as a whole because of the interdependence of its components. The notion of dependency is closely related to this conceptualization. International integration has been similarly important for the theory of interdependence. The main assumption behind the concept of integration is that a learning process and changes in attitudes about cooperation may occur because of cooperative transnational linkages that are formed over technical matters.

Interdependence theorists assert that when states engage in relationships of mutual dependence their primary focus is on international economic cooperation, with the reduction of conflict as a potential result (Keohane and Nye, 2001; Friedman, 1999; Polachek, 1980). Interdependence thinking and theorizing have a long tradition in International Relations scholarship where the term is broadly used “to refer to international relationships that would be costly to break” (Baldwin, 1980, 477). To a certain degree, ‘parties dependent on each other’ has become the standard definition (Katzenstein, 1975; Holsti, 1978; Ikenberry, 2014).

\textsuperscript{17} Belt and Road Initiative. https://www.beltroad-initiative.com/belt-and-road/


International integration has been another important analytical connection in interdependence theorizing. Mitrany’s (1948) well-known argument lays the foundation for the functionalist approach to international integration: he asserts that compatible interests and collective pursuits related to technical issues and other aspects of low politics may lead to peace. He further contends that cooperative transnational linkages formed to resolve technical matters might involve a learning process that could subsequently alter attitudes about cooperation and could extend to other issues. Hence, interdependence is a key structural feature of international relations and can be seen as an essential analytical tool for understanding the political and geopolitical implications of new interdependencies resulting from the clean energy transition.
THE GEOPOLITICS OF ENERGY TRANSITION IN THE EASTERN MEDITERRANEAN

The scope and impact of what is described as ‘an energy transition led by renewables will likely result in radical changes whereby—with the emergence of a new paradigm—the volatility of energy prices, vulnerable supply lines, and energy interdependency will become of lesser concern to states. Over the last ten years, the fossil-fuel-based strategies for the Eastern Mediterranean have replaced strategies for exporting offshore natural gas to Europe. Thus, it is now possible to talk about new realities and expectations, in the sense that they conform to the decarbonization of the EU economy. This section provides an overview of the old versus the new paradigm for the region, by explicating the conflictual elements resulting from the natural gas discoveries and the new dynamics related to the renewable energy-led transition in the region.

The Geopolitics of the Fossil Fuel Paradigm in the Eastern Mediterranean

Over the last decade, hydrocarbon discoveries in the Eastern Mediterranean have created not only prospects for cooperation but also a set of geopolitical challenges (e.g., the delimitation of maritime boundaries, especially EEZs; talk of new gas pipelines [e.g., the EastMed]; the various agreements within the field of defence, security, energy, etc.). The size of the natural gas reserves is still unclear, and current conditions in the global energy market are extremely volatile in the face of the Russian-Ukraine crisis (Klebnikov, 2022). Five percent of the world’s oil and gas reserves are in the Mediterranean Region, of which 98 percent are in the southern rim countries (Drobinski et al., 2020, 269). Between 1990-2008, natural gas production increased by 120 percent, then declined until 2015 because of Egypt, and increased again to 196 bcm in 2020. The regional production of natural gas is projected to rise by about two-thirds until its peak at 325 bcm in the 2040s; to stay above 300 bcm for some time, and then drop to 290 bcm by 2050. Algeria and Egypt will be the major gas producers.

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21 OME, 2021.
22 OME, 2021.
Offshore natural gas discoveries in the Eastern Mediterranean have generated conflicts among Cyprus, Turkey, and Greece over who has the rights to access, exploit, and export these resources, as well as where to draw maritime boundaries in the Aegean and the Eastern Mediterranean. Ambiguity over the boundaries, and territorial claims around Cyprus have escalated the tensions: extant conflictual positions have resurfaced as a maritime territorial dispute in the Cypriot context, seen as conflicting EEZ claims/views of Turkey, Greece, and the RoC.

Turkey has more recently resumed its diplomatic ties with Israel, Egypt, and the United Arab Emirates (UAE). Nonetheless, relations with the RoC are difficult to normalize because of the unresolved Cyprus Problem. New rounds of drilling activities can easily escalate tensions in and around Cyprus. The pandemic led to the temporary suspension of gas explorations in 2020, although in late 2021 Exxon Mobil resumed its explorations offshore Cyprus, and Eni and Total are expected to restart hydrocarbons explorations soon. In the meantime, the RoC is in discussions with Egypt over the construction of a pipeline to send Cyprus’s natural gas to the Damietta Segas LNG terminal, and from there to international markets. Tensions off the coast of Cyprus are likely to increase at any time in the future, and confrontations over the hydrocarbons of the Eastern Mediterranean can once again threaten the peace and stability in the region.

The East Mediterranean Gas Forum (EMGF), which was created to unlock the full potential of Eastern Mediterranean natural gas, is an indication of both cooperative and conflictual geopolitical dynamics relating to the region. Renewables have led to new geopolitical dynamics, resulting in new challenges as well as new opportunities (Rau, et al., 2022).

The Clean Energy Transition and New Dynamics in the Eastern Mediterranean

What are the projections for achieving carbon neutrality in the Eastern Mediterranean region? There are challenges for Eastern Mediterranean countries, including the constant population growth (607 to 659 million, by 2050), and the rising energy demand in the southeast Mediterranean countries (approximately 118 percent by 2040) (Drobinski, et al. 2020, 268). Statistics further indicate that the region’s primary energy consumption increased from 26 exajoules (EJ) in 1980, to 34EJ in 1995, to 43EJ in 2016, with an annual growth rate of 1.7 percent (Drobinski, et al. 2020, 269). Although the countries in the region have divergent energy mixes of fossil fuels, mainly oil and natural gas, renewables also play a role. It is expected that electricity, gas, and renewables will overtake oil by 2050 and that the region can achieve carbon neutrality by 2060 only by accelerating the deployment of clean energy technologies (mainly the wind and solar technologies alongside green gases-biomethane.

23 Al Jazeera, 2022; Daily Sabah, 2022.
and hydrogen – and battery storage). Fossil fuels are estimated to remain the largest portion of the energy mix until 2040, while renewables are expected to become the second most consumed energy source in the Mediterranean region and further triple by 2040 (Drobinski, et al. 2020, 268).

Egypt is well known for its solar energy capacity. The country aims to increase its share of renewables in the electricity mix to 42 percent by 2035. Israel is seeking an accelerated transition from coal, and renewables are gradually gaining more significance within the country’s energy mix. Within the greenhouse gas (GHG) emission reduction goals, the country has targeted 30 percent of its electricity to be generated from renewable sources by 2030. Lebanon also has mechanisms dedicated to financing renewables deployment. The country’s current Nationally Determined Contribution (NDC) aims for a total share of 20 percent by 2030. Financing the transition appears to be the most challenging part within this context. Jordan is a particularly interesting case, with both an excess of natural gas and considerable renewables capacity.

As we have seen, having inexpensive, clean, and abundant renewable energy sources has never been so critical for the region as now, and regional cooperation has become even more important from this perspective. Although the initial objective of the EMGF was to facilitate cooperation over natural gas and to help the development of a regional gas market, more recently, with the involvement of the United Arab Emirates (UAE) and with the easing of tensions between Israel and several Arab countries, these goals are likely to expand. Other areas, such as renewables and electricity, are now within the target of the Forum (Karbuz, 2021, 131). For example, at the last EMGF ministerial meeting, emphasis was on the significance of natural gas as the least carbon-intensive hydrocarbon fuel in the context of the global energy transition.

In the region, the increasing electrification, decentralization, and digitalization of economies are creating new sets of interactions via two-way grids, rendering cross-border interconnections highly important for an enhanced addition of variable renewables into the grid. This is critical in the sense that it allows power systems with different load profiles and energy mixes to complement each other across the region. The EU is particularly interested in the region’s potential for solar and wind energy, and is looking at projects for cooperation on renewable electricity trading, notably via the prospective EuroAsia and EuroAfrica Interconnectors. The EuroAsia Interconnector, a 2,000MW electricity interconnector linking

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24 OME, 2021.
25 IEA, Egypt Country Profile.
26 ITA, 2021.
27 IRENA 2020, 18.
28 IRENA, 2021b.
Israel, Cyprus, Greece, and Europe, is a European Project of Common Interest (PCI).\textsuperscript{30} It is regarded as a prospective EU electricity highway, crossing the region with a 1,208 km subsea HVDC cable. The project is entering the construction phase and is expected to come into service in 2025. The EuroAfrica Interconnector is another 2,000MW electricity interconnector linking Egypt, Cyprus, Greece, and Europe, bridging Africa and Europe, with a total length of 1396 km-long subsea cable.\textsuperscript{31} Energy ministers of Greece, the RoC, and Egypt all agreed on the interconnector in October 2021. The interconnector is expected to start operating in 2024. Both projects aim to stabilize the regional power supply. Countries in the region are expected to increase the renewable energy component in their electricity mix in the following years, and this will decrease the volatility of production capacities given that renewable energy production levels vary depending on the time of the day, weather conditions, and the season. Cross-border interconnections can transfer any excess electricity and prevent power disruptions.

The EuroAsia Interconnector is partly financed by the Connecting Europe Facility (CEF), with a total of €5.84 billion for the period 2021 to 2027. The EU is also providing €100 million to the RoC via the Recovery Fund which is available for addressing the consequences of the Covid-19 crisis. On 26 January 2022, the European Commission promised to allocate a further €657 million from the CEF. Additionally, the European Investment Bank and the European Bank for Reconstruction and Development are also likely to finance the project. These developments related to the regional integration of electricity markets may also increase the share of natural gas in the total electricity generation, and this may help to reduce the commercialization challenges currently faced by the region’s natural gas (Karbuz, 2021,131). Electricity exportation from the Eastern Mediterranean to countries in the Middle East and Africa can be a more likely option in this regard.

Electricity market integration does not simply mean physical interconnectivity. Connecting Cyprus to the continental European power grid and the EU electricity market is not only a technical matter but also a hugely significant political decision since the island is still de facto divided. Will the whole island be interconnected? Beyond challenges of compliance with the relevant technical and market rules of the EU Internal Electricity Market due to the lack of a political settlement of the Cyprus Problem, the status of the northern part of Cyprus is unclear. And this refers not only in terms of physical interconnectivity, but also for interconnection and trade contacts, regulation, and power projection within the EU energy community framework. Yet, interconnection of the RoC to a broader European grid would mean decoupling of the synchronized power systems on the two sides of the divide in Cyprus.\textsuperscript{32} In a similar vein, once the RoC connects to a broader and more flexible supply of

\textsuperscript{30} EuroAsia Interconnector. Official Website. https://euroasia-interconnector.com
\textsuperscript{31} EuroAfrica Interconnector. Official Website. https://www.euroafrica-interconnector.com
\textsuperscript{32} Since 2019, the north and the south have been connected via a synchronized interconnector.
electricity, the rationale of being connected with northern Cyprus may again become redundant. The EU has to make political decisions about the interconnection of the whole island despite the contested status of the de facto Turkish Republic of Northern Cyprus (TRNC), otherwise interconnection projects may become a new source of political friction and halt efforts to build an island-wide framework supporting the clean energy transition in Cyprus.

The Abraham Accords, signed by the heads of states of the US, Israel, and the UAE on 13 August 2020, have also caused geopolitical shifts in the Middle East and the Eastern Mediterranean, with some political implications for the regional energy transition. An announcement of a political process of full normalization of relations among states in the region could help to commercialize natural gas in the form of electricity to the Gulf states. For example, the UAE and Israel agreed to collaborate in the storing and transfer of crude oil and petroleum products through a new pipeline network, consequently bypassing the Suez Canal and Egypt’s Sumed pipeline (Karbuz, 2021, 131). These developments may result in reduced transit revenues for Egypt and an increase in the significance of regional interconnectors for the country.

The Philia Forum, which took place on 11 February 2021 in Athens, is another significant development. Egypt, Greece, the RoC, the UAE, Bahrain, Saudi Arabia, and France declared their intention to establish a framework to review issues of common interest and concern, including energy and environmental protection. Israel is not part of the Forum, which is almost identical to the EMGF. As Karbuz (2021, 132) notes, the EMGF, the Abraham Accords, and the Philia Forum share one common feature: the absence of Turkey, Lebanon, and Syria from all three platforms. The systematic exclusion of these three countries from such multilateral forums may lead to the development of counter forums; however, because of the plurality of national interests of these countries, this may not happen anytime soon if at all.

At the upcoming 27th session of the Conference of the Parties (COP 27) to the UNFCCC, which will take place in Sharm El-Sheikh, Egypt is expected to restate the role of natural gas as the least carbon-intensive hydrocarbon fuel in the energy transition. The Eastern Mediterranean is also under the spotlight in the context of the EU hydrogen strategy. Renewable hydrogen is produced by splitting water into hydrogen and oxygen using electricity from renewable sources. Renewable hydrogen produced at offshore wind farms can be transported via pipelines or via ships, either in liquefied form or as a derivative such as ammonia or methanol. Presently, Egypt has the highest potential in the hydrogen industry in the region, and intends to develop low-carbon hydrogen projects and prepare a national hydrogen strategy. In January 2021, Egypt signed a letter of intent (LoI) with the Germany company Siemens for green hydrogen production in Egypt. Later, in August 2021, their cooperation was upgraded to a Memorandum of Understanding (MoU) signed with the Egyptian Electricity Holding Company (EEHC) for a joint development of the hydrogen-based industry in Egypt with export capability (Habib and Ouki, 2021, 4-5). In addition, the country
The geopolitics of Energy Transition in the Eastern Mediterranean has signed a series of agreements with Belgium’s DEME, Italy’s Eni, and Norway’s Scatec, all aimed at the development of a hydrogen industry (Habib and Ouki, 2021, 5). The Eastern Mediterranean can also be a transit route for renewable hydrogen exports from the Arab world (The EU, 2021). The European Commission is also committed to expanding the region’s offshore wind power capacities as an attractive business model in the region. At present there is no offshore wind energy off the coasts of Greece, Turkey, or Cyprus, but the technology is likely to expand soon.

While infrastructure links may create new competition and confrontations, they will also create new interdependencies that will require a high degree of confidence and trust. Cyprus remains behind the goals set by the EU in the context of energy transition, although the island’s geographical position gives Cyprus many advantages for prospective regional interconnectors, as well as for a prospective regional hydrogen market. Nevertheless, there is an important obstacle to the island becoming an important part of cross-border grids in a well-regulated and transparent regional market: the Cyprus Problem, which means the island’s continuing political division. The next chapter will provide a view of the two separate power systems in Cyprus; this fact is important because of the benefits Cyprus would enjoy with island-wide integrated energy and climate strategy—i.e., it could greatly enhance its geopolitical role in the regional energy transition context.
CYPRUS AND THE CLEAN ENERGY TRANSITION

Cyprus is expected to see an increase in exceptionally hot summer days; specifically, where maximum temperatures will exceed 38˚C for an additional two weeks per year. Moreover, an additional month of warm tropical nights with minimum temperatures above 25˚C is also predicted. By 2100, it is expected that Nicosia will be like Cairo or Bahrain in terms of the number of hot days per year. Consequently, climate change in Cyprus will result in a further decrease in rainfall of 10-15 percent over the 2020 to 2050 period.

There is no question that such changes in climate and weather patterns in Cyprus will lead to increased electricity consumption in the upcoming decades as the need for air-conditioning will rise accordingly. Both sides of the island currently depend on imported oil to meet most of their energy needs. The island's abundant renewable energy sources need to be tapped for several reasons: to reduce dependency on fossil fuels; to comply with EU renewable energy targets; and to meet Cyprus’s decarbonization targets. Hence, the energy systems of both sides in Cyprus must be examined with careful consideration of these issues.

The energy systems of the two sides of the divide

The energy sector in the RoC is undergoing a significant transformation regarding the diversification of its energy mix. In its Nationally Determined Contribution (NDC), Cyprus focuses on renewable energy (electricity, transport, and heating/cooling) and energy efficiency. In 2018 the share of renewables in the total primary energy supply was 5 percent. By 2020, electricity capacity and generation from renewables had risen to 20 percent (solar 11 percent, wind 6 percent, bioenergy 1 percent). Lack of electricity storage is a major problem in realizing the solar power potential of the island. In this regard, a greater use of battery systems, storage of excess energy, and the creation of a power bank are essential. The RoC has been part of a number of projects, namely PEGASUS (promotion of effective

33 The Cyprus Institute.
34 The Cyprus Institute.
35 The Cyprus Institute.
36 IRENA, 2021a.
Cyprus and the Clean Energy Transition

generation and sustainable use of electricity), PRISMI (promoting renewable energy integration for the Mediterranean islands), and StoRES (promotion of higher penetration of distributed PV through storage), which is part of the Interreg Med program supported by the European Union Cohesion Policy. The Cypriot ESS pilot project, the first community energy storage system in Cyprus, is part of StoRES, which is financed to the tune of 2 million euros through the MED Programme of the EU European Regional Development Fund. The MED Programme follows protocols set by the Lisbon Strategy and the environmental protections mandated by the Göteborg Strategy. The main aim of the programme is to increase grid-connected renewable energy in the RoC. Against this backdrop, the ESS programme is significant for improving the connectivity of storage and energy management systems at large. 

In terms of energy efficiency, the RoC adopted the Law on the Promotion of Renewable Energy and Energy Efficiency in the early 2010s. Overall, energy efficiency improved by around 25 percent in Cyprus between 2000 and 2018 in all sectors—buildings, industry, and transport (Odyssee-Mure, 2021). In the heating and cooling sector, the use of high-efficiency heat pumps, wood biomass, and solar water heaters are important contributions to the energy efficiency targets.

The RoC is one of the most vulnerable countries in the EU in terms of energy dependency and the security of energy supply. In terms of the security of supply, the RoC’s power generation system operates in complete isolation and depends on imported heavy fuel oil and gasoil for electricity generation. There are three thermal power stations with a total installed capacity of 1480MWe. Dhekelia power station has six 60MWe steam turbines and two 50MWe internal combustion engine blocks, while the Vassilikos power station has three 130MWe steam turbines, two 220MWe combined cycle technology units, and one 38MWe gas turbine. Moni power station, used as a backup, has four 37.5MWe gas turbines. Heavy fuel oil for the steam turbine units and gasoil for the gas turbine units are used in the stations mentioned above. The combined cycle units will use gasoil until the arrival of natural gas in Cyprus.

In the de facto TRNC, the total installed capacity is 404MW (Thermic+Diesel Generator). The main authority responsible for electricity production, transmission, and distribution is the Cyprus Turkish Electricity Authority (KIBTEK). KIBTEK has two steam plant generators for the base load and six diesel generators for the peak values. There is also the AKSA Energy Kalecik Heavy Fuel Oil Power Plant, which provides 148 MW, or approximately 40 percent of the total installed capacity of 404 MW. In general, northern Cyprus is almost completely dependent on imported fuel oil. Oil products are presently imported from different countries.

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41 KIBTEK (The Cyprus Turkish Electricity Authority). Official Website. https://www.kibtek.com/uretim/
and dependency on oil imports and price volatility are the main challenges ahead for the north (S. Uludağ, Senior energy executive based in Turkey, personal communication, 19 January 2022). Additionally, there is a solar photovoltaic (PV) power plant with a capacity of 1.3MW under the authority of KIBTEK. Total solar capacity has now reached about 70MW, and this figure includes privately installed photovoltaic power systems. The total installed solar capacity can only supply 6 percent of the total electricity consumed in the country. This is far behind the EU parameters set for 2050. It is clear that 70MW renewable energy integration into the power system grid is already creating problems related to the stability of the KIBTEK system. Therefore, there are no realistic prospects ahead for an increase in the share of solar power, unless the capacity problem is adequately addressed.

The two sides can, in emergency cases such as major power system failures, share electricity via the synchronized interconnector that has been in place since 2019. The grid is seen as a guarantee for the security of the electricity supply for both sides. The physical energy transmission across the border is based on a netting regime. Yet there are several factors that may endanger the grid’s stability in the future: an increase in installed photovoltaic power systems; lack of investment to improve the stability of the system; shortages in automation of the distribution. The grid is seen as a part of the confidence-building measures in the context of the Cyprus Problem, and equally important to note, is that a subsea electrical interconnection between Turkey and Cyprus was also considered in the past. Turkey has 90,000MW installed capacity and the country is connected to Europe with three transmission lines. Connection to the northern part of Cyprus with a transmission line would help increase the renewable energy capacity of the island. Yet, like the Turkish water pipeline to northern Cyprus, talk over the undersea cable has reignited debate among the Turkish Cypriot community about a dependency on Turkey. More important, however, are the financial problems related to the project. The lack of investment in increasing the system’s stability appears to be the main obstacle to improving the security of northern Cyprus’s electricity supply. Additionally, AKSA Energy’s contract will end in 2024, and considering its share in the total capacity, northern Cyprus will soon have even more serious issues related to its electricity supply.

Efforts for climate change adaptation and decarbonization in Cyprus: Priorities and major areas of interest

In order to implement its clean energy transition objectives, the RoC has the EU energy and climate legislation as the most relevant legislative and strategic roadmap; moreover, the legislation also provides a framework that holds the RoC accountable for achieving its greenhouse gas reduction objective. Since the acquis communautaire of the Union is suspended in the northern part of Cyprus until a political settlement of the Cyprus Problem, there are no binding obligations for the north.

The European Green Deal, presented in December 2019, is the Commission’s pledge to tackle climate and environment-related challenges, which are defined as existential threats
to Europe. The Green Deal is described as a growth strategy that aims to create a resource-efficient and competitive economy with zero emission of greenhouse gases by 2050 and, most important, the strategy aims to dissociate economic growth from resource use. The transition process is designed to be just and inclusive, with a focus on protecting, conserving, and enhancing the EU’s natural capital.\textsuperscript{42} Furthermore, the European Climate Law restates the goal of climate neutrality by 2050, while also setting an intermediate target for 2030 to reduce net greenhouse gas emissions by at least 55 percent, compared to 1990 levels. The Union aims to promote energy efficiency, energy savings, and the development of renewable forms of energy across the EU through coordinated action, legislative and non-legislative acts.\textsuperscript{43}

In July 2021, the European Commission announced the “Fit for 55” package, which intends to strengthen EU efforts to extend its pledge of reducing greenhouse gas emissions at least 55 percent by 2030. The “Fit for 55” package is part of the larger EU Green Deal, and it includes policy proposals for the EU in realizing its nationally determined contribution under the Paris Agreement. The package is an indication that the Union generally pursues a mix of price-based and regulatory instruments and policies, instead of defining a leading instrument in the field of climate legislation (Schlacke, et al. 2022).

The RoC is working to attain its climate and environmental targets within the EU framework; yet this requires a radical transformation of its energy system, with major investments in energy infrastructure. Cyprus’s Integrated National Energy and Climate Plan for the period 2021-2030 delineates national targets on a mid-term basis,\textsuperscript{44} and represents a significant step towards achieving minimum greenhouse gas emissions by 2050. While decarbonization is the major component of energy and climate planning in the RoC, the northern part of Cyprus lacks any strategic document in that respect.

In northern Cyprus, there is no regulatory or policy framework for a clear strategy/guarantee regarding transformation of the energy system in order to meet climate goals or to converge with the RoC on this issue. Yet, the environmental costs of the lack of a transition process are alarming. It is reported that, in 2018, the north produced 1.75 billion kWh, which means 1.36 million tons of CO$_2$ with 55 million dollars societal damage (M. Fahriöğlu, Professor at Middle East Technical University - Northern Cyprus Campus, Department of Electrical and Electronics Engineering, personal communication, 31 January 2022).\textsuperscript{45} Overall, if the north wants to strengthen the stability of the grid and increase the share of renewables, it needs to be interconnected with larger grids, ideally Turkey and/or the EU. It is equally urgent that the

\textsuperscript{42} The European Union, 2019.
\textsuperscript{43} The European Union, 2018.
\textsuperscript{44} Cyprus’s Integrated National Energy and Climate Plan, 2020, 17.
\textsuperscript{45} Here the societal damage is calculated in accordance with the EPA (Environmental Protection Agency) formula which is $40 / \text{ton of CO}_2 \text{ Societal Damage. For further details see US Environmental Protection Agency. The Social Cost of Carbon.} \text{https://19january2017snapshot.epa.gov/climatechange/social-cost-carbon_.html.}
north converts to less carbon-intensive fuels such as LNG in electricity generation, and expands the total installed capacity with further investments. Storage capacity must be considered and financed together with renewables, and biomass or biogas must be included in the energy mix for further diversification.

To what extent can the north achieve these goals in complete isolation from the south? Can the RoC reach its climate and energy goals in alignment with regional and global developments in energy transition solely with self-reliant projects and strategies? To answer these questions, the next chapter discusses prospects for creating an island-wide energy system to enable an accelerated energy transition in Cyprus.
PATHS FOR A GREEN ENERGY DIALOGUE IN CYPRUS

This section suggests an approach based on cooperation, with a consideration of the problems that both sides face in strengthening their energy security and accelerating the transition to clean energy. The cooperation envisioned is that of an island-wide and regional energy market integration on multiple levels.

An island-wide energy system perspective vs. self-reliant projects/strategies

There is broad consensus that if cooperation prevails over delay and disruption, climate and clean energy targets can be achieved in a shorter period. Yet, in practice, there is very little dialogue/cooperation between the two sides in terms of adjusting to climate change together: there is no industrial policy, diplomacy, transboundary infrastructure, cross-border public-private partnerships for research and development, and/or shared policies. What is needed are similar policies and targets, and convergence on technology development through storage, load management, demand response, and a smart grid—these are the most important elements for island-wide regulation, policies, and cooperation. More holistic policymaking and coordination across sectors and the boundary, timely infrastructure deployment, and the redesign of sector regulations are some of the basic features of a prospective green dialogue between the two sides of the divide.

As indicated above, the clean energy transition holds considerable potential for cooperation in Cyprus, especially via electricity interconnectors. However, there is a political resistance to cooperation—and has been for over a decade now—in the matter of the island’s offshore hydrocarbons resources. Unless the factors sealing the offshore hydrocarbons issue in a conflictual paradigm are addressed, the potential of climate and clean energy targets for triggering island-wide cooperation will not be unlocked. In the following section, some relevant policy choices are identified, including island-wide diversification of the energy mix, improved energy efficiency, and an increase in the share of renewable energy.
Options and choices for shared energy governance – Technological cooperation with political impact

There are EU-driven energy and sustainability goals, as well as globally acknowledged and pursued agendas, on both sides of the divide in Cyprus. Pursuing joint projects is the main challenge. Dr. Venizelios Efthymiou (Chairman of FOSS Research Centre for Sustainable Energy, Cyprus, personal communication, 7 January 2022) notes that cooperation requires resources, knowledge, and technology sharing. Can a degree of active commitment be sustained in that respect? What institutions can be instrumental in fast-tracking joint projects? Within this framework, three different but not mutually exclusive criteria for judging potential policy options are employed: (i) the political criterion – relevance for policymaking circles and ease of coordination across sectors and the buffer zone; (ii) the economic criterion – feasibility of infrastructure deployment, and cost-effectiveness; (iii) the geopolitical criterion – engagement of regional energy schemes, both political and technical.

Policy Options and Recommendations

a. Launching green energy trade via the existing grid between the north and south

There has already been a particular kind of electricity trading between the two sides. For example, in 2021 the north received 27 million kWh electricity from the south and the south in its turn received 24 million kWh in return from the north (Görkem Çelik, President of the Cyprus Turkish Energy Efficiency Association, personal communication, 27 December 2021). During this transmission, however, there was no differentiation in terms of the percentage of electricity produced by renewables. Thus, here it is proposed that a more specific agreement be made, one in which the share of renewables is highlighted, with a subsequent new pricing regime that reflects the percentage of renewables within the transmission line.

(i) The political criterion:
Green trade across the border can be a relevant policy option for the authorities on both sides, as the grid has been in operation since 2019. This would help the RoC to increase its renewables share in the overall energy mix and could also be seen as a convenient way of achieving EU-set emission goals (i.e., with a contribution from the north). Moreover, being able to contribute to EU objectives would be important for the authorities in the north as well.

(ii) The economic criterion:
Green electricity import/export across the buffer zone is technically possible, although the north requires an internationally recognized certification for its renewable energy production (e.g., energy attribute certificates, EACs). EACs, which represent a unit of energy produced and the associated environmental attributes, track ownership of renewable energy. For the north, such an agreement could
accelerate investments in the renewable sector and revitalize the energy sector, as it is likely to result in EU grants and funds for a greater deployment of renewables. Most important, this could help the north overcome its electricity supply problems—through a new agreement on the transmission regime between the two sides that is subject to a bilateral netting arrangement. More precisely, the north has been indebted 3 million kWh to the south on recurring terms for three consecutive years: 2019, 2020, and 2021 (see Table 1.1). With a new billing regime where renewables are valued differently, this difference could be calculated on a new basis (for example, 1 unit of electricity produced by renewables can be considered as more valuable compared to 1 unit of electricity produced by fossil fuels).

### Table 1.1 (in million kWh)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
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<tbody>
<tr>
<td>Electric power delivered from the south to the north</td>
<td>9</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>Electric power delivered from the north to the south</td>
<td>6</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>Net Difference Between the Two</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
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Source: (Gökrem Çelik, President of the Cyprus Turkish Energy Efficiency Association, personal communication, 27 December 2021)

(iii) *The geopolitical criterion:*

Implementation of such a policy will likely be seen as a confidence-building measure and may contribute to the institutionalization of more cooperative attitudes among conflicting parties in the long run.

### b. Bi-communal Energy Storage Solutions at the Buffer Zone

The full potential of the large share of variable energy sources in the power systems can be realized with energy storage solutions, which will ensure greater security of the electricity supply island-wide. The European energy storage environment, existing facilities, regulatory frameworks, best practices, and limitations can be assessed together under a common project funded by the EU, and storage facilities can be built in the buffer zone under UN monitoring.

(i) *The political criterion:*

Policymaking circles on both sides may find this proposal useful and accessible in the sense that it may contribute positively to both sides’ storage facilities and strategies.

(ii) *The economic criterion:*

EU sponsorship can be seen as vital for the project, as the Clean Energy for All Europeans Package can guide various storage solutions ranging from lithium-ion...
battery storage to concentrated solar power storage. The space available within the buffer zone is particularly suitable for the project. Alternatively, feasibility studies can be made jointly to select other locations for these facilities.

(iii) The geopolitical criterion:

Although there is no specific regional energy plan to which the proposal is tied, it is worth stating that the project can help create dialogue, build trust, and bring communities together—here, within the context of the regional and global clean energy transition.

c. Increasing the number of electric vehicle charging stations in the north

The EU Recovery and Resilience Facility has allocated €1.2 billion for the Cyprus Recovery and Resilience Plan 2021-2026, which was approved by the Council in July 2021. One objective is the installation of publicly accessible fast-charging stations for electric vehicles in the south. The installation of similar charging stations supported by solar photovoltaics in the north could be supported through the same funding scheme, as a mirror project of the installation plan for the south.

(i) The political criterion:

This can be seen as an instrument for integrating the Turkish Cypriot community into the Cyprus Recovery and Resilience Plan 2021-2026, by contributing to the north's access to more electric vehicles supported by renewables. For the RoC, this can be considered an opportunity for addressing the need to reduce the island's total carbon emissions. It could thus be significant from an environmental point of view. The island's potential for environmentally sustainable long-term growth and welfare requires such mirroring projects. The project can help the RoC fulfill its national targets.

(ii) The economic criterion:

The project can be implemented by two committees for island-wide energy conservation, which can be set up on both sides (KIB-TEK and the Electricity Authority of Cyprus can monitor these committees). Alternatively, a bicommunal committee similar to the existing technical committees can also be established for the implementation of such a project.

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(iii) The geopolitical criterion:
The project can be seen as relevant in the context of the Next Generation EU recovery plan.48

d. Facilitating energy renovations in public buildings and social infrastructure through an EU-funded bi-communal project:
The proposal aims to address the urgency of tackling energy poverty and renovation of worst-performing buildings island-wide.

(i) The political criterion:
The usefulness of the proposal for both sides can be seen in its potential contribution to energy efficiency island-wide.

(ii) The economic criterion:
The Cyprus Recovery and Resilience Plan 2021-2026 can allocate available EU funding for the project to support the renovation wave in the whole of Cyprus.

(iii) The geopolitical criterion:
This proposal can be seen as being compatible with the European Commission’s 2020 strategy of “A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives”, which aims to boost renovation in the EU.49

Further to the above-mentioned proposals, it is worth stating that common energy strategies can function as catalysts for the economic integration of the island. More importantly, the underlying principle that EU funding for green transition should be utilized for the benefit of both communities should be further highlighted.

CONCLUSION

Climate change is one of today’s most challenging problems, and one that urgently requires collective action. Institutional development and political will are much-needed prerequisites for cooperative efforts on multiple levels: local, national, regional, international, and global. It is now possible to say that a new, less carbon-intensive energy age is on the horizon with political, economic, and geopolitical consequences for states, private entrepreneurs, communities, and individuals, among others. This report acknowledges that the clean energy transition has a multifaceted and dynamic nature, making it difficult to predict the outcome precisely. Yet, the global energy transformation will stimulate fundamental changes in economies and societies throughout the world.

The influence of states with more renewable technologies will increase. This report provides a foundation for dialogue and examination of this issue, for political leaders, businesses, and all other sectors in the whole of Cyprus, thus contributing to policy strategies in the energy and climate nexus. It argues for the need for and prospects of acting jointly in Cyprus in this new energy age marked by the knowledge of the link between climate and energy systems, and the need to prepare together and proactively for the geopolitical consequences of energy transition in the region. It also shows how crucial is the need for joint planning of the island’s energy systems. Joint action can promote sustainable economic growth, as well as foster peace and stability in the rapidly changing regional energy landscape shaped by the renewable energy transition.

The report further highlights the ways in which potential geopolitical risks can be mitigated and the opportunities that are available for both communities in Cyprus. The Eastern Mediterranean region, and Cyprus in particular, has significant potential for renewable energy production and high energy efficiency gains. Improved energy efficiency and renewable energy deployment on a larger scale can reduce energy supply concerns and environmental damage for the whole region. Based on these facts, the report recommends the following:

(i) A policy framework wherein both sides can cooperate on issues related to the electrification of transport, building, and industry. Deep and cost-effective decarbonization of these sectors.

(ii) Cooperation over technological innovation.
(iii) Completion of necessary legal and technical arrangements for securing the interconnection of the whole island to a larger European grid via the prospective EuroAsia and EuroAfrica Interconnector projects.

(iv) Facilitating green energy trade via the existing electricity interconnector upon completion of the technical requirements.
REFERENCES


Hook, L. & Hume, N. (2020, March 8). Will the Ukraine war derail the green energy transition?. *Financial Times*. https://www.ft.com/content/93eb06ec-ba6c-4ad2-8fae-5b66235632b2


The Cyprus Institute. Climate Change and Impact.  


https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF

https://ec.europa.eu/info/publications/2021-commission-work-programme-key-documents_en


Since the 2010s, the discovery of offshore hydrocarbons in the Eastern Mediterranean has been viewed as holding the potential to significantly alter regional geopolitical dynamics and become an area of cooperation. Yet instead, hydrocarbons have generated further tensions over maritime boundaries and exploration rights. A new reality is emerging now, as the transformation of energy systems away from fossil fuel-reliance picks up pace. In particular, the European Union goal of climate neutrality is likely to speed up the renewables-led energy transition, which can present a significant opportunity for cooperation in the region. This report critically analyses possibilities for a solution to the Cyprus Problem within this new paradigm, where energy and sustainability goals might offer an avenue to cooperation. It argues that the EU pledge on sustainability offers new prospects for easing political tensions and creating opportunities for inter-communal cooperation in Cyprus. Yet there are political risks involved, too, which must be carefully analysed and avoided where possible.