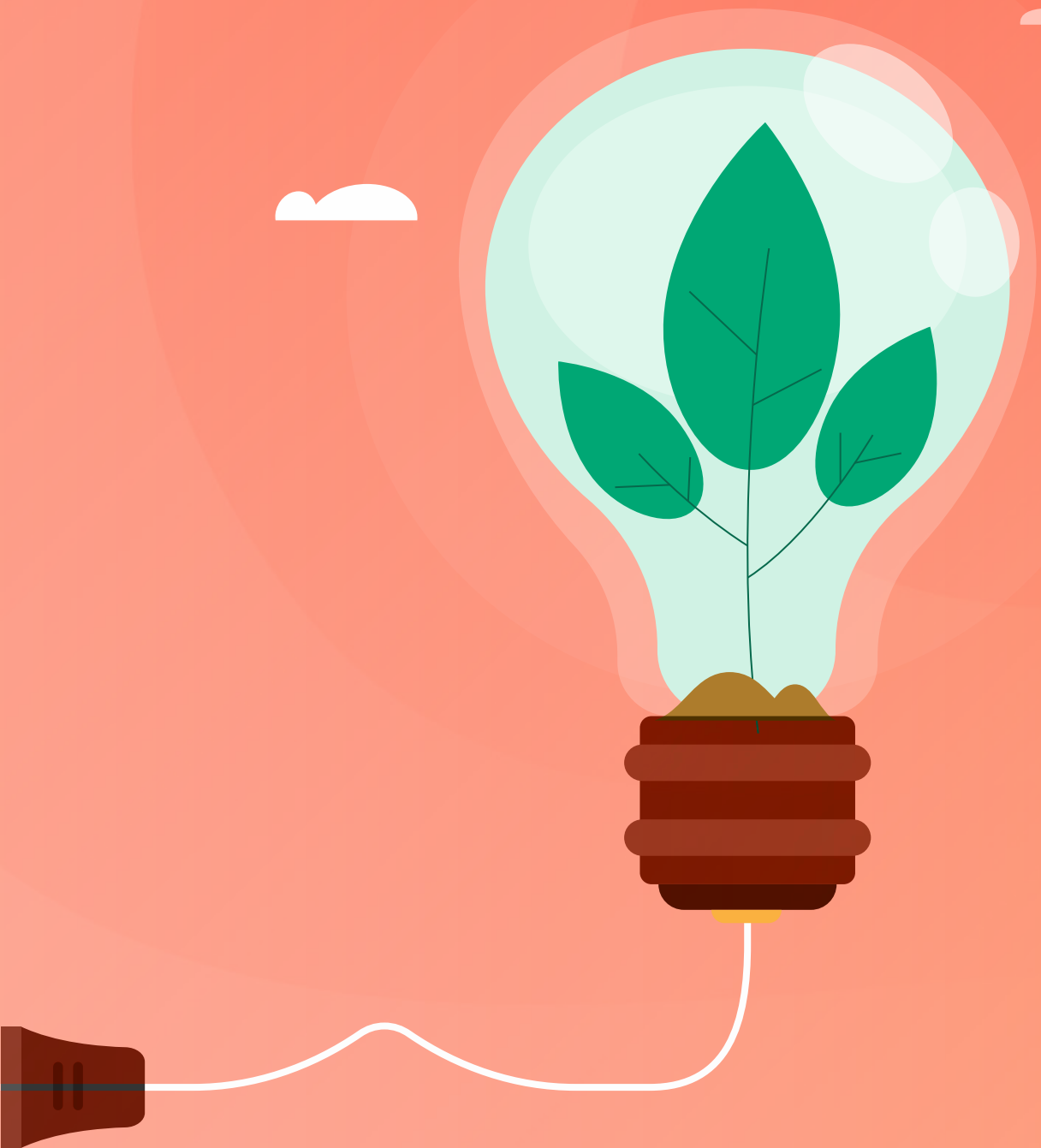
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EU-North Africa Energy Partnerships: **Is a Win-Win Formula Possible?**



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EU-North Africa Energy Partnerships: Is a Win-Win Formula Possible?

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January 2025

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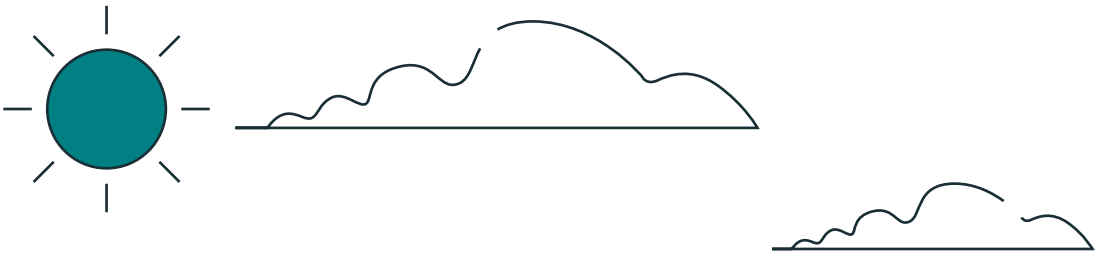
This brief is part of the Natural Resource Governance Institute's (NRGI) contribution to the just energy transition debate in the Middle East and North Africa. The content is based on a webcast organized by NRGI, in which expert guests from the European Union and North Africa discussed the status of energy partnerships between countries in their regions, particularly Morocco and Tunisia.

Key messages

- The European Union and North Africa have complementary strengths in the energy transition, with the former harnessing technology and the latter, an abundance of resources.
- Partnerships between the two regions must prioritize local development, job creation and infrastructure in North Africa.
- It is essential that the European Union moves beyond the extractivist model for equitable energy partnerships.
- European Union investments should align with North Africa's priorities, to ensure sustainable progress.
- Interconnected grids and renewable energy projects can enhance mutual energy security.

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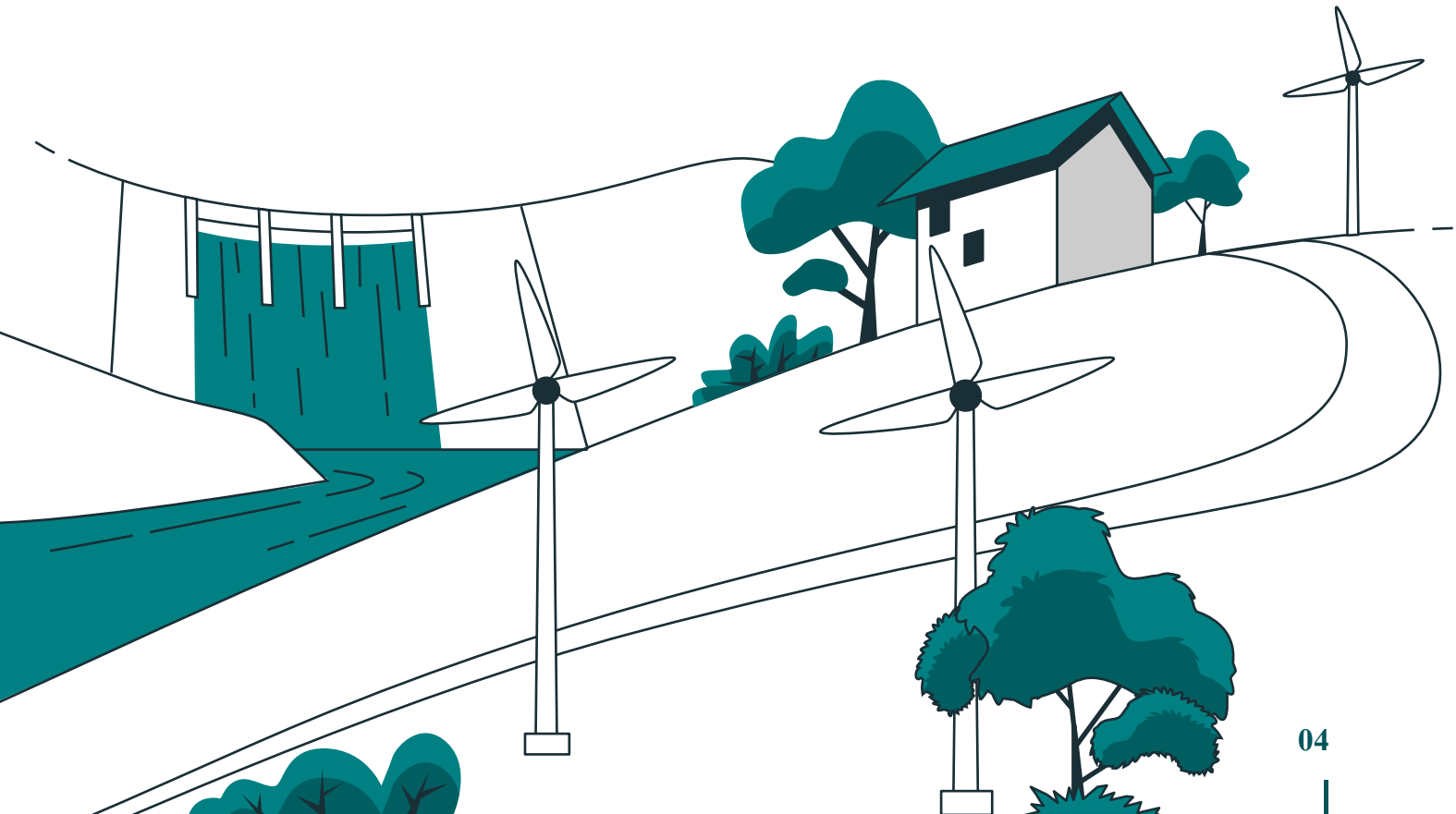
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01 A just energy transition for all

The energy transition is a transformative process that requires political and societal will, effective policies, investment in research, innovation, technologies and human capital, and—above all—collective efforts and collaboration among states and people. A just energy transition requires not only equitable, fair and just measures within countries, but also balanced regional collaboration. The European Union (EU) and North Africa are neighbors, each with visions, objectives and goals for a just energy transition, and ambitions to collaborate on many related issues—a case of countries from both the Global North and the Global South sharing ambitions to build a sustainable future.

The EU is one of the leading regions in renewable energy, possessing extensive expertise and advanced technologies for developing large-scale projects and managing clean energy systems. Meanwhile, North Africa is rich in valuable natural resources for renewable energy, particularly solar and wind power. This provides a unique opportunity for both regions to benefit from collaboration in developing green and clean energy infrastructure and systems. This report explores how the EU and North Africa can collaborate to create a sustainable, equitable energy future, while addressing shared challenges. Based on discussions during a webcast with representatives from Morocco and Tunisia, it naturally explores views from these countries more than others in the region.



02
The EU's clean energy objectives

In 2021, the EU set ambitious clean energy objectives to address climate change, reduce greenhouse gas emissions, and transition to a sustainable, low-carbon economy. These objectives are part of the broader European Green Deal and other climate and energy policies. Aligned with global climate efforts, such as the Paris Agreement, they are designed to ensure the EU remains a leader in combating climate change and accelerating the energy transition, while fostering economic growth, innovation and competitiveness. The EU's clean energy objectives span a wide spectrum, including:



Climate neutral by 2050
Achieve net-zero greenhouse gas emissions, while maintaining economic growth and social fairness.



Energy efficiency
Maximize energy efficiency to significantly reduce energy consumption, especially in buildings and industrial processes.



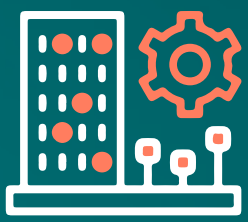
Deployment of renewables
Transition to a system where the majority of energy comes from renewable sources, aiming for over 80 percent electricity from renewables by 2050.



Clean and connected mobility
Develop low- or zero-emission transportation solutions, including electric vehicles, hydrogen technologies and enhanced public transport.



Competitive industry and circular economy
Modernize industry to reduce emissions and use of resources, increase recycling, and transition to a circular economy that reuses resources and minimizes waste.



Infrastructure and interconnections
Build smart, interconnected infrastructure to support cross-border energy and mobility systems.



Bioeconomy and natural carbon sinks
Enhance sustainable agricultural and forestry practices, increase biomass production, and preserve ecosystems to act as carbon sinks.



Carbon capture and storage (CCS)
Develop CCS technologies for sectors that are hard to decarbonize, and explore carbon dioxide removal methods.



Research and innovation
Invest in low-carbon technologies and advanced solutions to make climate neutrality economically viable.



Societal transformation
Engage citizens, businesses and communities to adopt sustainable practices and ensure a just transition.



Global leadership
Position the EU as a leader in global climate efforts, promoting international cooperation and sustainable trade.

The geopolitical landscape significantly shifted following Russia's invasion of Ukraine in 2022, pushing the EU to reassess its approach to energy policy. This led to the introduction of a new strategic focus on diversifying energy sources and reducing reliance on Russian energy imports. North Africa became more important as a key partner in providing natural gas to European countries, while gaining a more strategic role as a partner for clean energy cooperation, including renewable energies and hydrogen.

Currently, the EU's energy transition strategy emphasizes diversification, energy security, green industrialization and clean supply chains. These pillars reflect the EU's determination to integrate its climate goals with economic resilience and geopolitical stability. With legally binding targets for 2030 and 2040, the EU remains steadfast in its commitment to achieving net-zero emissions by 2050, and ensuring energy transition stays central to its legislative and policy agenda.

03 North Africa's clean energy objectives: Tunisia and Morocco

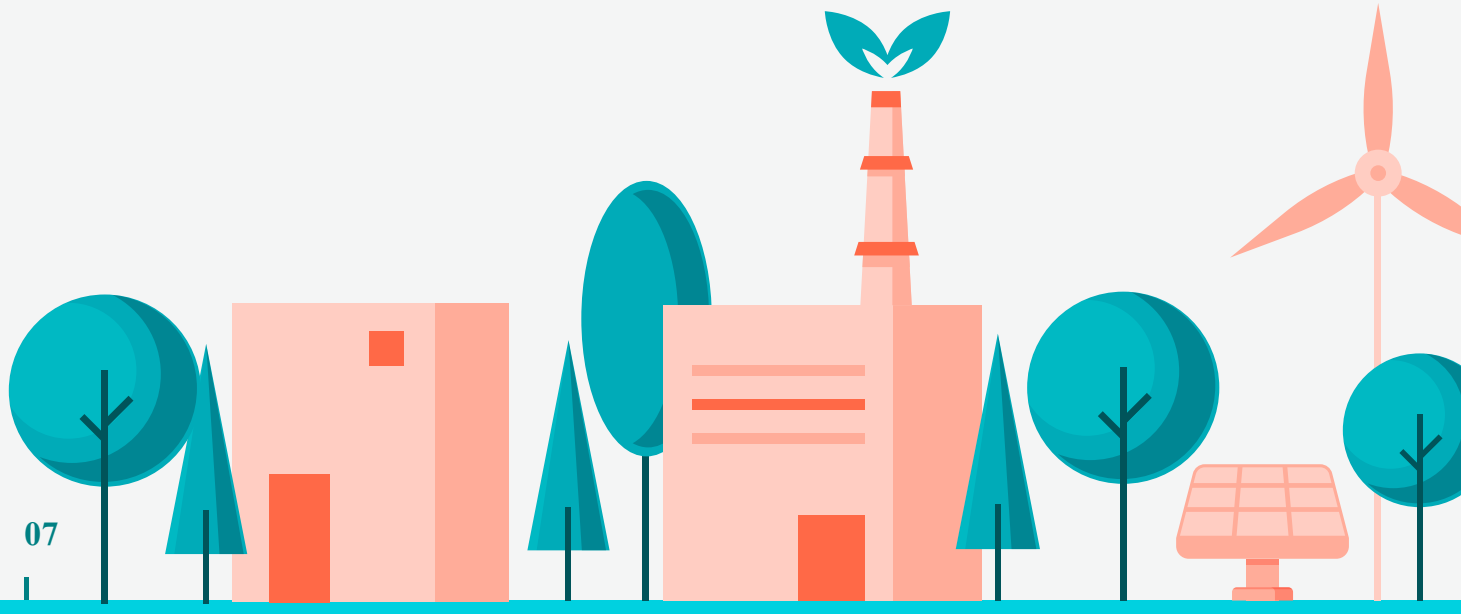
Tunisia's energy objectives

Tunisia's energy transition is built on three key objectives: enhancing energy security, reducing reliance on fossil fuel imports, and combating energy vulnerability. Enhancing energy security involves diversifying energy sources and ensuring a stable energy supply to reliably meet national demands. Reducing reliance on fossil fuel imports entails increasing local energy production and expanding the share of renewable energy in the electricity mix. Combating energy vulnerability seeks to mitigate the impact of global energy price fluctuations on the local economy, while improving citizens' access to affordable and sustainable energy services.

To achieve these objectives, Tunisia is focusing on three strategic pillars. The first is improving energy efficiency by implementing policies that shift consumption patterns, encouraging behavioral changes among economic actors through energy sobriety mechanisms that reduce energy consumption and minimize waste. Tunisia has set an ambitious target to reduce energy consumption by 30 percent by 2030, emphasizing conservation and smarter energy use.

The second pillar is the expansion of renewable energy, with goals to increase the share of renewables in the electricity mix to 35 percent by 2030, 50 percent by 2040, and 80 percent by 2050. This includes developing ambitious projects, such as a 1,700-megawatt tender for solar and wind energy under the concession system, and launching calls for small- and medium-scale renewable projects under the licensing system. Such domestic production systems are being supported through improved legislative frameworks, to ensure smooth implementation.

The third pillar focuses on promoting green technologies and gradually electrifying various sectors. Tunisia is prioritizing the production of green hydrogen, considered one of the main energy sources of the future. The country has set a target to produce 8 million tons of green hydrogen by 2050, divided between local market consumption and export. These initiatives collectively aim to position Tunisia as a leader in sustainable energy, ensuring economic stability, environmental preservation and energy independence for the future, while strengthening its strategic partnership with the EU.



Morocco's energy objectives

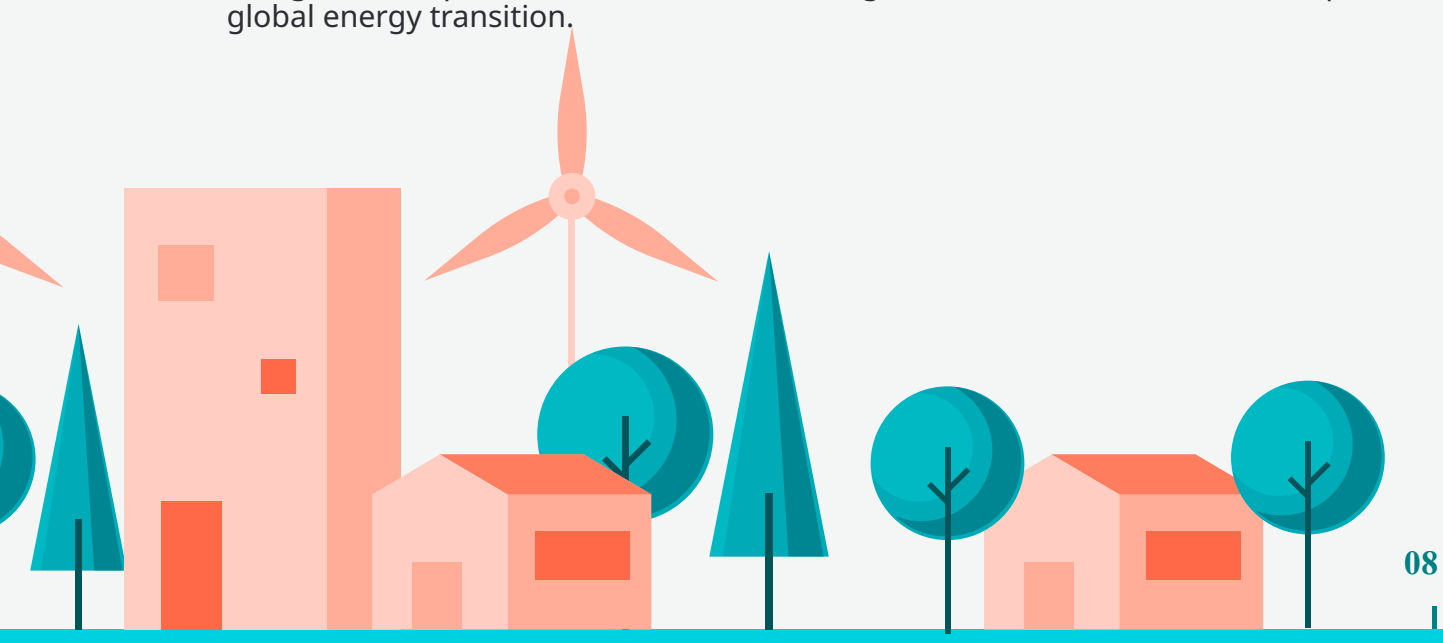
Morocco is significantly burdened by a trade deficit, due to its reliance on importing 95 percent of its petroleum products, which come at a high international price. This dependency impacts citizens' purchasing power, affecting all aspects of life, including transportation, industry and household needs, making it a costly factor for the nation.

To address these challenges, Morocco adopted a national energy strategy in 2009, to leverage its exceptional solar and wind resources through institutional reforms and legislative measures. The country benefits from approximately 250 sunny days per year, offering an average solar potential of 5,000 hours annually, and abundant wind resources across various regions. If utilized efficiently, these renewable resources could place Morocco among major energy-producing nations, comparable to Venezuela or Nigeria. Estimates equate the country's renewable energy potential to 1.5 million barrels of oil daily, if using innovative approaches, which would exceed domestic demand by over 100 times, and enable significant export opportunities.

Within its vision for 2050, Morocco has outlined five main strategic objectives. It aims to achieve a diverse and competitive energy mix, based on reliable and advanced technologies; to increase reliance on domestic energy resources by boosting the share of renewable energy; and to reduce waste and optimize energy use by adopting energy efficiency as a national priority. It also aims to achieve regional energy integration to strengthen its position as a key energy player, and finally, to focus on sustainable development, ensuring long-term environmental and economic stability.

The national strategy includes achieving over 96 percent growth in energy capacity by 2050, and advancing the development of green hydrogen, particularly for industrial applications and maritime shipping. Efforts also focus on generalizing energy efficiency and optimizing resource use in all sectors, especially in manufacturing, construction and transportation. This includes promoting sectors aligned with the principles of the circular economy, and enhancing end-use efficiency.

To support these objectives, seven actionable plans have been developed to accelerate progress in key areas. These include the creation of sustainable, smart and climate-resilient agricultural ecosystems; fostering innovation in smart and resilient regions and transitioning to net-zero emissions systems. The adoption of digital technologies underpins these initiatives, ensuring Morocco's continued leadership in the global energy transition.



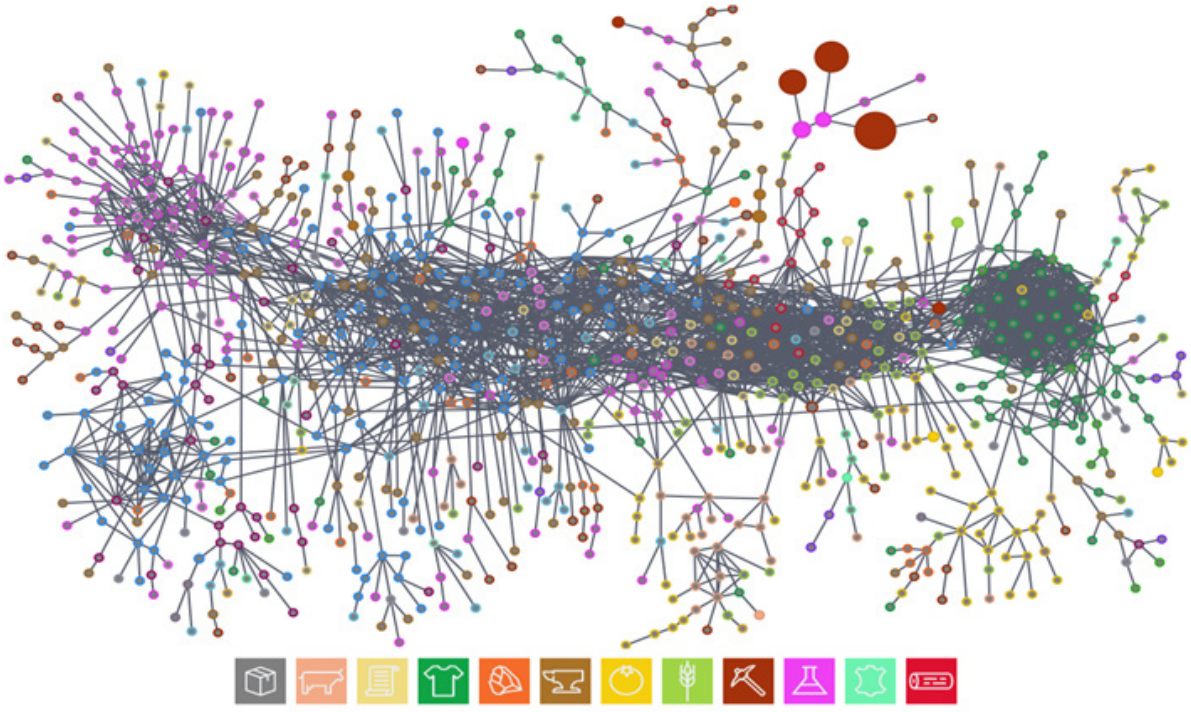
04 North Africa as a strategic partner for the EU

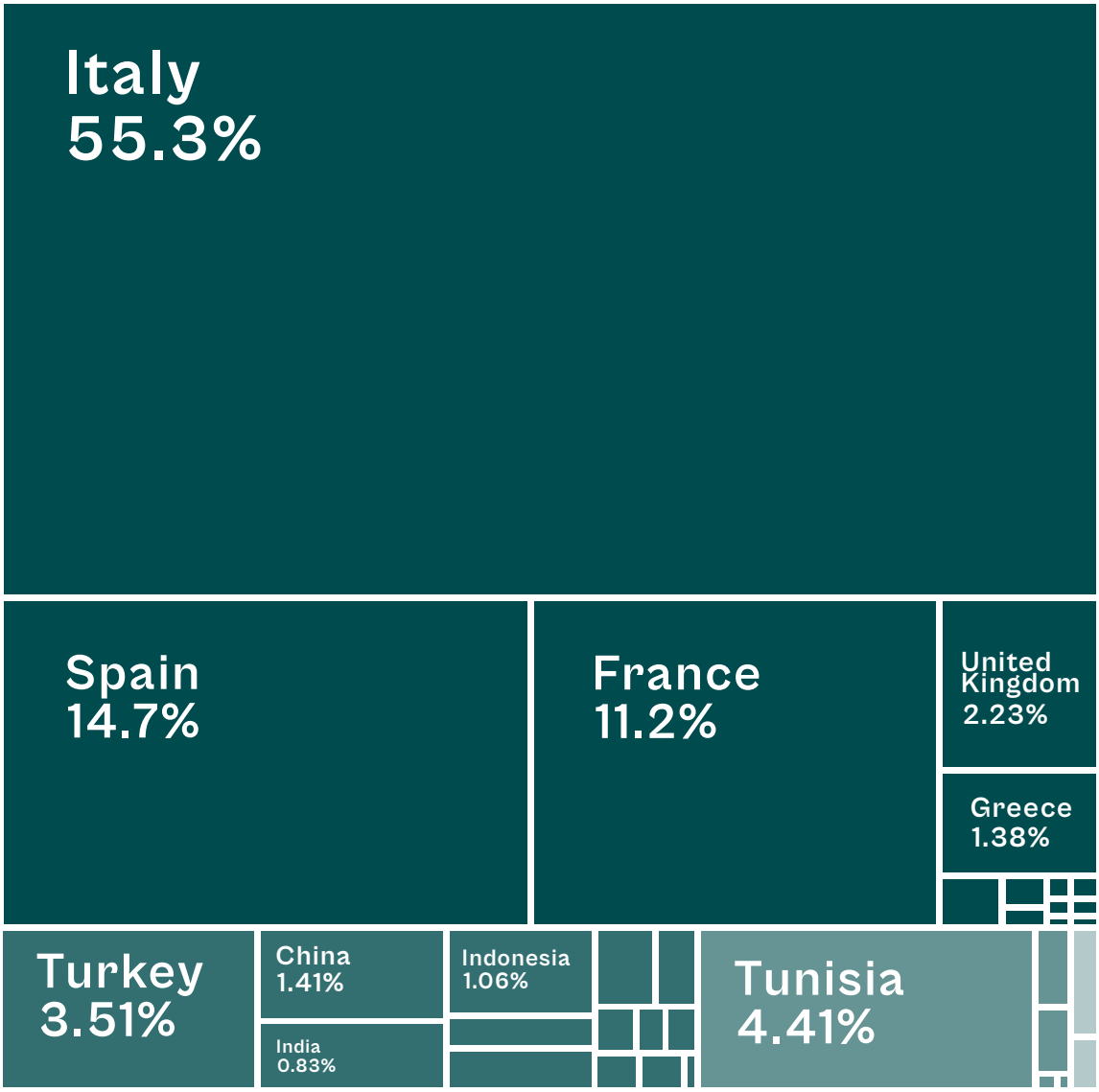
The EU has established the European Neighbourhood Policy (ENP) to strengthen relations with its neighboring regions, covering Southern and Eastern partnerships. The Southern Neighbourhood encompasses North African countries and the Eastern Mediterranean, while the Eastern Europe and Eurasia Partnership includes nations such as Moldova and Ukraine.

Recent geopolitical challenges have impacted these regions. The Eastern Partnership faces instability due to the war in Ukraine, and the Southern Neighbourhood contends with tensions in areas such as Palestine and Lebanon. In contrast, North Africa has emerged as a stable and reliable partner for the EU, engaging in cooperation across key areas including security, trade, development, migration and energy. This stability underscores the region's strategic importance in the EU's external relations, particularly in advancing shared objectives within the ENP framework.

Energy cooperation stands out as a key pillar of the EU's partnership with North Africa. Algeria, for example, is a major exporter of gas to Europe, highlighting North Africa's critical role in supporting EU energy security and diversification efforts. As the EU seeks to reduce reliance on traditional suppliers and transition to more sustainable energy systems, Algeria's contributions demonstrate North Africa's strategic value in achieving these goals.

Algeria's dominant products are mineral products, particularly petroleum gas, crude petroleum and refined petroleum, with a trade volume in 2022 of USD27.4 billion, $16 billion, and $8.6 billion respectively. The country is the seventh largest exporter of petroleum gas globally, exporting approximately 83 percent of its petroleum gas to the EU, particularly to Italy ($15.1 billion), Spain ($4 billion) and France ($3.1 billion). These top three destinations also represent Algeria's fastest growing export markets for petroleum gas between 2021 and 2022.





Yet although Algeria provided significant energy exports, petroleum gas remained the country's top imported product in 2022, reflecting the extractive nature of the trade dynamics, where countries rely heavily on exporting crude and raw products to obtain foreign currencies that will be used to support domestic service provision. The ambition is to learn from past experiences and build a sustainable green energy sector, which enables countries with resources to both grow their own economies and support those of other countries. However, fears of extractivism—the export of natural resources with minimal processing—and "green colonialism" are being heard in North Africa and Europe. To move beyond this approach, the EU is working towards a more strategic partnership that fosters mutual benefits and long-term development. Initiatives such as Trans-Mediterranean Energy and the EU-Africa Clean Energy Initiative signal a shift toward sustainable energy collaboration and technological integration. These efforts aim to reshape EU-North Africa relations, emphasizing a balanced and forward-looking strategy.

05 The EU as strategic partner for North Africa

North Africa has emerged as a pivotal region in the global energy transition, offering vast renewable energy resources vital for Europe's decarbonization goals—particularly solar and wind power. Both regions' reliance on imported fossil fuels and vulnerability to price fluctuations make renewable energy development not only an economic necessity, but also a strategic opportunity. European partnerships with North African countries are instrumental in fostering regional energy integration and enabling the transition to a more sustainable energy future.

Regional collaboration plays a key role in maximizing North Africa's renewable energy potential. While Tunisia increasingly focuses on energy security to reduce reliance on Algeria for 75 percent of its energy needs, these efforts highlight regional interdependence, rather than rivalry. Cooperation among neighboring countries is crucial for achieving collective energy security and advancing regional integration. Countries like Algeria, Morocco and Tunisia, that already have interconnected electricity networks can work to strengthen their grids, to facilitate the exchange of renewable energy and enable surplus sharing among nations. This integration strengthens regional stability and positions North Africa as a strong energy supplier for Europe.

Developing smart infrastructure, such as advanced electricity grids that connect production and consumption centers, is essential for creating a resilient and integrated energy framework. European funding and technology transfer programs can play a pivotal role in realizing this vision, ensuring both regions benefit from enhanced energy systems.



06 TUNISIA
EU partnerships in action

Tunisia exemplifies how North African countries can leverage partnerships with the EU to transform their energy sectors. With its abundant solar and wind resources, Tunisia is actively collaborating with the EU to develop renewable energy projects and achieve mutual energy security goals.

Key initiatives include concessions and tenders for major electricity production projects, which have attracted companies from France, Belgium, Germany and Italy. A notable example is the ELMED project, an electrical connection between Tunisia and Italy set to become operational by 2030. This project will provide Europe with 600 megawatts of renewable electricity, showcasing the potential of such collaborations to enhance energy ties between the regions. It will be essential for both Tunisia and Italy—as well as project investors and supporters—to ensure a just project implementation which benefits the Tunisian population through jobs and affordable electricity. If the project delivers such balanced, bilateral benefit, it will pave the way for others and increase the social acceptance of such projects in Tunisia, and across North Africa and the Global South.

Tunisia is also advancing green hydrogen production through partnerships with European countries such as Germany, France and the Netherlands. Memoranda of understanding have been signed under which the EU members will provide technical and financial support for hydrogen projects and infrastructure development. These collaborations align with Europe's decarbonization strategy, while enabling Tunisia to access advanced technologies and strengthen its position as a renewable energy hub.

In addition, Tunisia's regional integration efforts—such as the electricity transmission network shared with Algeria—demonstrate how North African countries are fostering regional stability while connecting to European markets. These efforts reflect the broader vision of a North African-European energy partnership, built on mutual benefits and shared goals for a sustainable future.



07 A win-win scenario for the EU and North Africa

To ensure the development of partnerships and projects that benefit both regions, North African countries and societies have clear requirements:



Respect for North African resource sovereignty

To develop energy partnerships that respect and enhance North African sovereignty over natural resources, Europe must move away from exploitative, market-driven approaches and adopt fair, cooperative strategies. Partnerships should focus on shared benefits, such as reducing carbon emissions, fostering local economic development, and supporting citizens' livelihoods. Transparent agreements and financial support for key projects, such as green energy and localized production, are essential to achieving mutual benefits and ensuring sustainable progress.



Mutually beneficial partnerships

To ensure that energy partnerships between Europe and North Africa are mutually beneficial, these collaborations must be based on shared interests and a balanced exchange. There must be equilibrium between Europe's increasing demand for clean energy and North Africa's development needs. This includes addressing Europe's energy security, while fostering economic and social development in North African countries.

Europe's expertise in renewable energy development and North Africa's abundant solar and wind resources present a unique opportunity for collaboration. By investing in energy storage and transmission networks, and ensuring technology transfer, North Africa can benefit from European innovation, while addressing challenges such as weak infrastructure and resource variability.

Europe can support this balance by providing appropriate technology, expertise and investments tailored to North Africa's needs. These contributions are essential for developing renewable energy projects and infrastructure, enabling the EU to access clean, sustainable energy at competitive prices. Simultaneously, localizing energy industries in North Africa, through direct investments in the manufacture of components for renewable energy projects, will enhance technology transfer and create local job opportunities.

Risk-sharing is also a critical aspect of balanced partnerships, where the risks associated with project implementation are distributed among the parties involved based on their capacity to manage or mitigate those risks. For example, exporting countries can take on political and legislative risks, while Europe can handle technical and financial risks. This approach ensures efficiency, reduces unexpected costs and supports successful project outcomes.

Ultimately, effective negotiations and fair regulation are key to creating partnerships that address both Europe's energy demands and North Africa's development priorities.

08 The current EU approach

The EU's approach to energy cooperation with North Africa is evolving towards a forward-looking and mutually beneficial framework. Recognizing the need for transparency, the EU acknowledges its current reliance on natural gas, while preparing for a clean energy future. This transition offers opportunities for North Africa to lead its own energy transition and for the EU to support regional priorities through strategic partnerships.

Key principles for win-win partnerships include:



Supporting local development
Collaborative projects should prioritize local benefits, such as job creation, infrastructure development and industrial value chains. For instance, Mauritania's leadership in green hydrogen production demonstrates the potential to refine iron into green steel locally, rather than exporting raw hydrogen. This approach not only meets Europe's decarbonization goals, but also drives sustainable development in North Africa.



Empowering regional leadership
Initiatives such as Egypt's Nexus of Water-Food-Energy highlight how governments in North Africa can define their energy priorities while seeking international support. This model ensures that local needs and ambitions are central to the partnership.



Advancing interconnectivity
Projects such as the TeraMed initiative, which aims to achieve 1 terawatt of renewable energy capacity in the Mediterranean by 2030, exemplify the potential of interconnected grids. These grids enable bidirectional energy flows, promoting clean electricity transfers between North Africa and Europe.



Ensuring accountability and inclusivity
Civil society organizations and non-governmental organizations play a vital role in holding governments and stakeholders accountable. They help ensure that joint projects deliver tangible benefits to local communities, foster equitable resource use, and address social and environmental challenges.

This comprehensive approach aligns Europe's decarbonization goals with North Africa's sustainable development aspirations. By moving away from extractive models of the past and focusing on equitable, strategic partnerships, the EU and North Africa can work together to create a resilient, interconnected energy future.

09 Recommendations for EU and North African policy makers

To ensure that the energy partnership between the EU and North Africa achieves its full potential, the following strategic recommendations outline actionable steps for fostering equitable, sustainable and mutually beneficial collaboration:



Foster research and development (R&D)

Establish joint R&D initiatives between North Africa and the EU to drive industrial integration and innovation. These efforts should focus on creating synergies in renewable energy technologies, clean energy solutions and sustainable industrial processes.



Move beyond extractivist policies

Transition from extractivist models of resource utilization to partnerships that prioritize mutual benefits, local economic development and sustainable resource management.



Align policies and regulatory frameworks

Work on harmonizing policies and regulatory frameworks by coordinating legislative efforts between the EU and North African countries. This alignment will create a stable and attractive regulatory environment for investment and cooperation. For example, Morocco has been successful in reducing barriers to investment in the energy sector through a variety of channels, including:

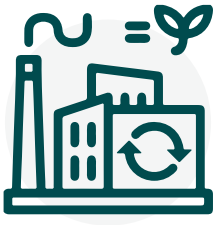
- *Simplifying laws and procedures: Adjusting laws and simplifying processes facilitates investment in Morocco, making it easier for private and international sectors to engage.*
- *Enhancing public-private partnerships: Public-private cooperation distributes risks fairly, improving efficiency and ensuring successful investment outcomes.*

- *Developing a strong legislative and regulatory framework: Morocco's efficient legislative framework supports investment and strengthens its status with Europe.*
- *Encouraging technology transfer and localization: Localizing industries through investments in manufacturing supports technology transfer and creates local opportunities.*
- *Addressing social and economic balance: Investments should align with social and economic goals, supporting development and stability for local communities.*
- *Building strategic political and economic alliances: Partnerships with Spain, Portugal and the UK enhance Morocco's growth and investment appeal.*



Promote local development through renewable energy

Ensure renewable energy projects are designed to benefit local communities by creating jobs, fostering local industries, and allocating a portion of the energy produced to domestic use at affordable prices. Renewable energy projects should aim to maximize local benefits by employing local labor during all project phases—design, construction, and operation. Such projects can also generate thousands of jobs in adjacent sectors, such as logistics and transportation. This approach ensures long-term socio-economic benefits for the communities hosting these projects. Decision-makers should avoid projects that prioritize exports at the expense of local development and community benefits.



Invest in employment and capacity building

Energy partnerships should prioritize training local labor and developing regional expertise, to ensure projects' long-term sustainability. Establishing local factories for manufacturing components such as solar panels and wind turbines could create stable employment opportunities beyond the construction phase. EU investments should be conditional on integrating local labor and businesses, as they possess the contextual expertise necessary for successful implementation.

References

European Commission, 2019, Going climate-neutral by 2050: A strategic long-term vision for a prosperous, modern, competitive, and climate-neutral EU economy. Luxembourg: Publications Office of the European Union, https://europa.eu/european-union/index_en.

European Commission, Renewable energy targets and rules: Renewable energy directive, https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-targets_en.

European External Action Service, European neighbourhood policy, https://www.eeas.europa.eu/eeas/european-neighbourhood-policy_en#_ftn1.

Green Climate Europe, 2024, European climate law: Toward carbon neutrality, https://gceurope.org/wp-content/uploads/2024/11/European-Climate-Law-toward-carbon-neutrality.pdf.

Observatory of Economic Complexity, Algeria country profile, https://oec.world/en/profile/country/dza.

Observatory of Economic Complexity, Petroleum gas: Algeria's bilateral trade profile, https://oec.world/en/profile/bilateral-product/petroleum-gas/reporter/dza.

Observatory of Economic Complexity, Trade network visualization for Algeria, 2022, https://oec.world/en/visualize/network/hs92/export/dza/all/show/2022.

World Bank, 18 December 2023, The nexus of food, water, energy: A key element to Egypt's climate efforts, https://www.worldbank.org/en/news/feature/2023/12/18/the-nexus-of-food-water-energy-a-key-element-to-egypt-s-climate-efforts.

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We partner with reformers in government and civil society to ddesign and implement just policies based on evidence and the priorities of citizens in resource-rich developing countries.

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