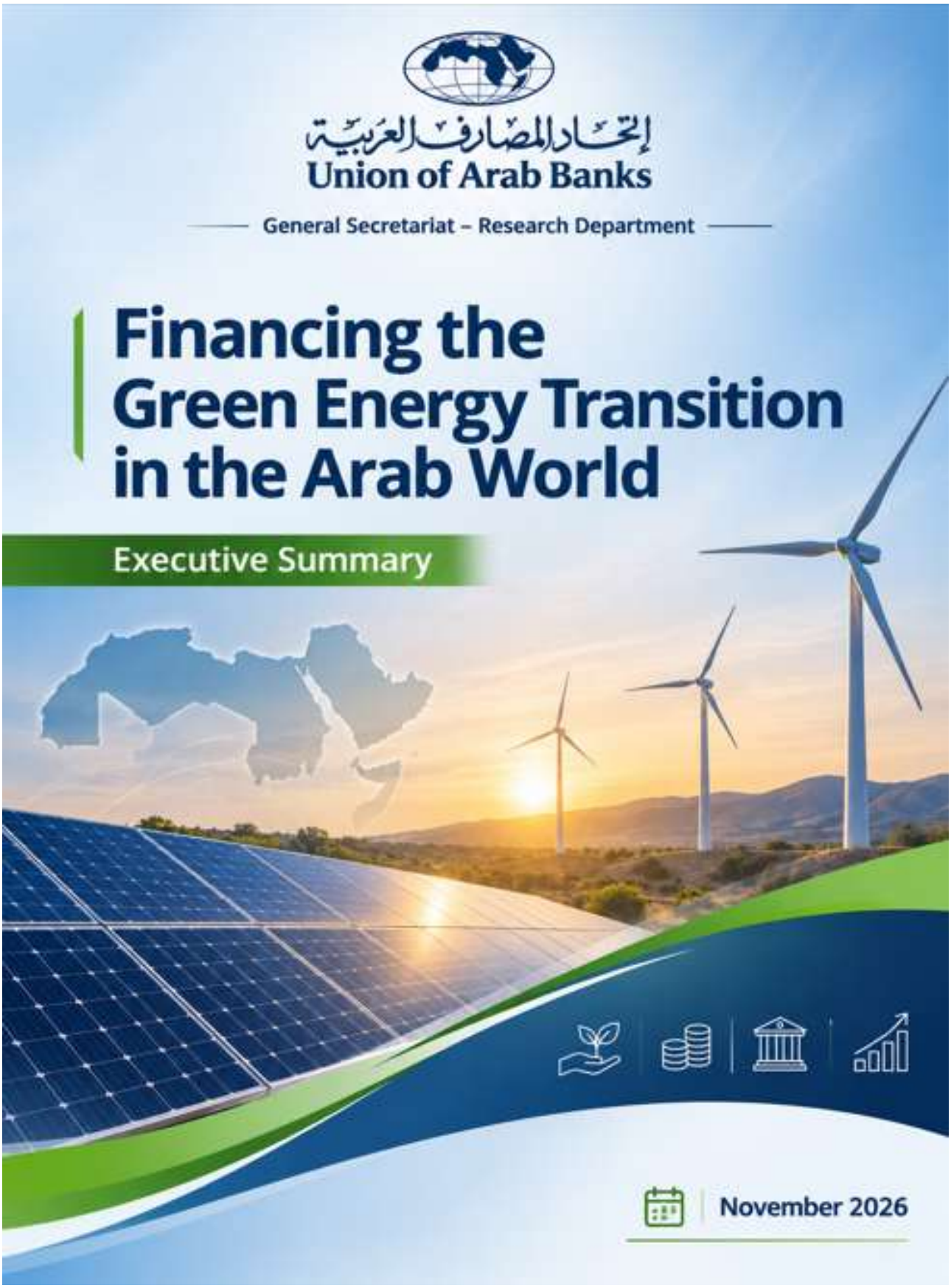

إتحاد المصارف العربية
Union of Arab Banks
General Secretariat – Research Department
Financing the Green Energy Transition in the Arab World
Executive Summary
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Financing the Green Energy Transition in the Arab World

Executive Summary

Green energy, meaning electricity generated from renewable sources, mainly the sun and the wind, has become one of the fastest-growing parts of the Arab economy. Renewable capacity across the 11 member states of the Arab Energy Organization rose by about 36% in 2025 to 39.2 GW, led by Saudi Arabia, Egypt and the UAE, yet these countries still hold less than 1% of global renewable capacity. The case for further expansion rests on economics as much as on climate goals, since renewables free oil and gas for export, reduce fuel import bills and limit subsidy costs. The 2026 disruption of shipping through the Strait of Hormuz made this concrete, as Egypt's fuel import bill rose by about 38% in the first half of the year.

The Arab financing gap is mainly one of allocation and price rather than of total funds. Power sector investment in the Middle East and North Africa is projected to rise by about 50% by 2035, while financing costs remain higher in energy-importing countries than in the Gulf. Three channels can close the gap: public and development finance, private finance led by banks through long-term power purchase agreements, and green bonds and green sukuk, where sustainable sukuk issuance from the Middle East reached a record USD 11.4 billion in 2025. Arab banks are central to all three, through specialised green finance teams and cross-border partnerships that bring Gulf liquidity to viable projects across the region.

1. Introduction

Energy has shaped the modern economies of the Arab world more than any other sector, and the way the region produces that energy is now changing. Green energy, meaning electricity generated from renewable sources such as the sun and the wind, has moved within little more than a decade from small pilot projects to a central place in national development plans. The region holds some of the strongest solar radiation and most reliable wind corridors on the planet. The cost of turning these resources into electricity has also fallen so far that new solar and wind plants now compete with, and often undercut, power generated from oil and gas.

The subject matters now for three reasons. The first is demand. The International Energy Agency (IEA) expects electricity consumption in the Middle East and North Africa to rise by about 50% by 2035, with cooling and water desalination accounting for some 40% of the increase. The region must therefore add large amounts of generating capacity whatever fuel it chooses. The second reason is economic. Oil and gas used for power at home could otherwise earn export revenue, while importing countries spend valuable foreign currency on fuel. The third is security. The conflict involving Iran that began at the end of February 2026 disrupted shipping through the Strait of Hormuz and pushed oil prices above USD 100 per barrel. It underlined, for exporters and importers alike, the value of diversifying energy sources and routes.

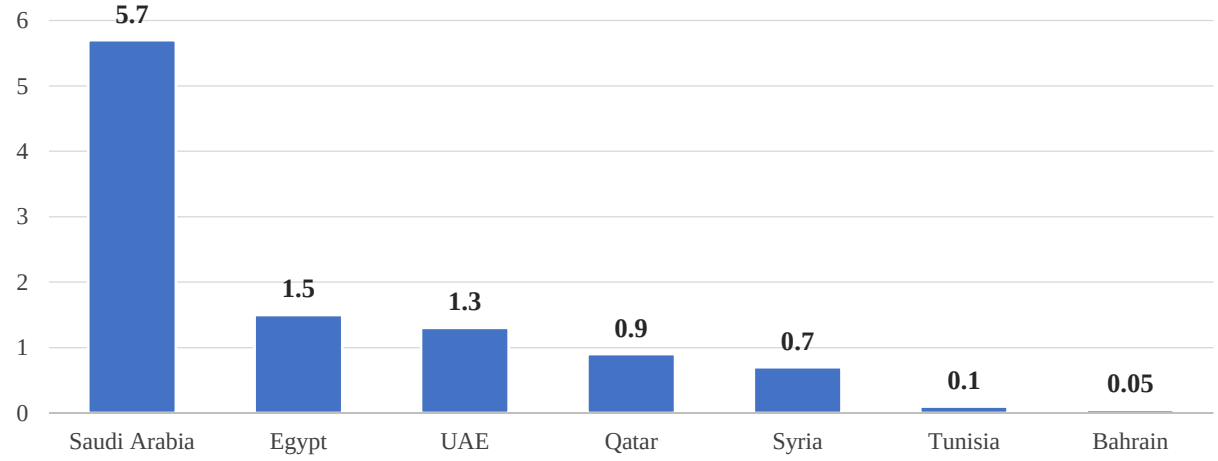
The priority now is to channel finance more efficiently to where it is needed, particularly to countries outside the Gulf, where borrowing costs are higher. Arab banks sit at the centre of this challenge as lenders, arrangers and issuers.

2. The State of Green Energy in the Arab World

The Arab region is going through the fastest expansion of renewable power in its history, led by a group of fast-moving markets. According to the Arab Energy Organization, formerly the

Organization of Arab Petroleum Exporting Countries (OAPEC), renewable capacity across its 11 member states rose by 35.9% in 2025 to about 39.2 GW. This was an increase of roughly 10.3 GW in a single year. Solar power accounted for 72.3% of installed renewable capacity and hydropower for 16.9%, the latter concentrated in Egypt, Iraq, Syria and Algeria. These countries still account for about 0.8% of the world's renewable capacity of some 5,149 GW, which points to considerable room for further growth given their weight in global energy markets.

Figure 1. Renewable Capacity Added by Arab Energy Organization Member States in 2025 (GW)



Source: Arab Energy Organization, as reported by Energetica India (June 2026).

Figure 1 shows how concentrated the 2025 expansion was. Saudi Arabia alone added 5.7 GW, more than all the other member states in the chart combined, followed by Egypt with 1.5 GW, the UAE with 1.3 GW and Qatar with 0.9 GW. The Saudi figure reflects the scale of the National Renewable Energy Program. By its sixth tender round in late 2025, the programme had contracted 43.2 GW of capacity, of which 12.3 GW was operating, as the Kingdom works toward a target of 50% renewables by 2030.

Across the wider Arab region, countries fall into three broad groups. The first is the Gulf states, which are scaling up quickly on the strength of state capital and strong credit ratings. Alongside Saudi Arabia, the UAE is building, through Masdar and the Emirates Water and Electricity Company, a project that pairs 5.2 GW of solar power with 19 GWh of battery storage. Its developers describe it as the world's first gigawatt-scale project able to supply renewable electricity around the clock. The second group is energy-importing countries that moved early to diversify their energy supply. Morocco had about 5.5 GW of renewable capacity by the end of 2025, equal to 45.4% of its installed capacity, and aims to raise the renewable share to 52% by 2030. Egypt and Jordan, for their part, built their markets through some of the region's first private power programmes. The third group is countries where difficult economic and security conditions have slowed large-scale investment, even though their renewable potential and needs are significant. In Lebanon, for example, households and businesses have installed rooftop solar panels on a wide scale in recent years, largely financing them from their own resources. This shows the strength of demand for clean power and the opportunity for banks to serve it with dedicated products.

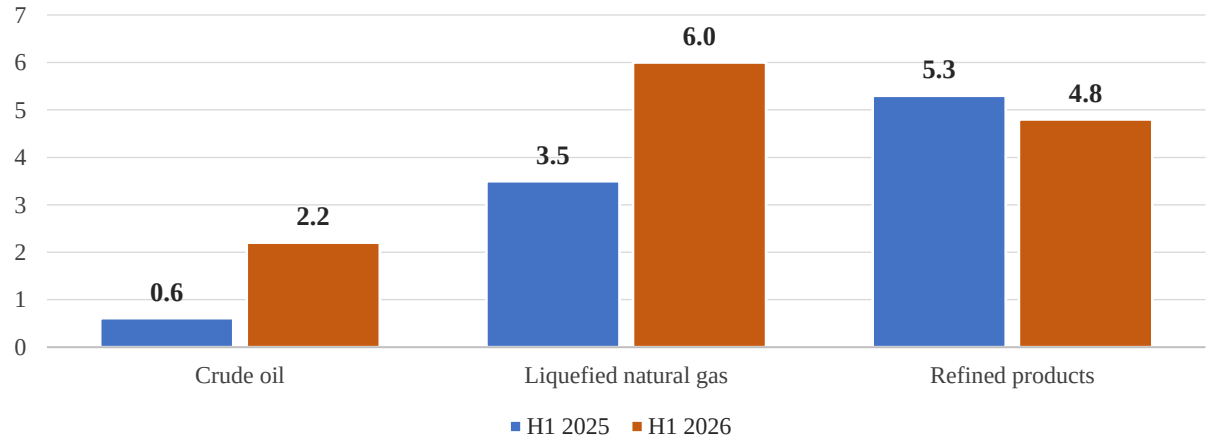
3. How Green Energy Benefits Arab Economies

The case for green energy in the Arab world rests less on climate commitments than on hard economics. Renewables change the energy balance sheet of every Arab country, whether it exports or imports fuel, and their benefits extend to public finances, employment, water security and trade. Because the gains differ between exporters and importers, it is useful to examine each group in turn before turning to the wider benefits.

For oil and gas producers, the main benefit is the value of the fuel that renewables free up. Oil still generates about 20% of electricity in the Middle East and North Africa, and oil and gas together supply more than 90%, according to the IEA. Every barrel burned in a power station is a barrel that cannot be sold abroad at world prices. Saudi Arabia shows the scale of the opportunity. Its total oil burn fell to 1.167 million barrels per day in July 2025, the lowest July level since 2019, and crude burn was 21% lower than a year earlier. The Kingdom aims to displace more than one million barrels of oil equivalent per day from domestic use by 2030. The IEA estimates that if the region diversified its power mix more slowly, oil and gas use for power would rise by over a quarter by 2035. This would cut export revenues by USD 80 billion and raise import bills by USD 20 billion.

For energy-importing countries, renewables reduce the fuel import bill, ease pressure on foreign currency reserves and limit the cost of energy subsidies. The events of 2026 have made this benefit concrete, and Egypt, the most populous Arab country and a net importer of gas, offers a clear illustration of what is at stake.

Figure 2. Egypt's Fuel Import Bill in the First Half of 2025 and 2026 (USD billion)



Source: Central Agency for Public Mobilization and Statistics, as reported by AGBI (September 2026).

Figure 2 shows the effect of the 2026 global price shock on Egypt's import bill. Spending on crude oil imports more than tripled to about USD 2.2 billion in the first half of 2026. Spending on liquefied natural gas rose by about 70% to some USD 6 billion, as higher world prices combined with growing domestic demand for gas. Spending on refined products, by contrast, fell, thanks to higher output from Egypt's own refineries. In total, the three items cost about USD 13 billion, roughly 38% more than a year earlier. Each gigawatt of solar or wind capacity that Egypt adds reduces the volume of gas it must buy on world markets in exactly these conditions. The same logic applies to public budgets. The United Nations Development Programme projects that the global bill for fossil fuel subsidies will reach USD 1.1 trillion in 2026, USD 410 billion more than

in 2025, as governments shield consumers from conflict-driven price increases. Renewable power sold under long-term fixed-price contracts offers a natural hedge against such shocks.

The wider benefits are equally significant. Renewable projects create employment. Foreign-backed renewable energy projects in the Arab region accounted for announced investment of more than USD 351 billion between 2003 and 2024 and created over 83,000 jobs, according to the Arab Investment and Export Credit Guarantee Corporation (Dhaman). Cheap solar power also lowers the cost of desalinated water, a vital input in a region where cooling and desalination drive much of the growth in electricity demand. Green hydrogen opens a possible new export industry. Oman, for instance, aims to produce at least 1 million tonnes of renewable hydrogen a year by 2030, a goal the IEA estimates would require around USD 33 billion of investment. Finally, clean electricity protects Arab exporters of steel, aluminium, fertilisers and other energy-intensive goods. The European Union's carbon border adjustment mechanism, which entered its definitive phase in 2026, has begun to price the carbon embedded in such imports.

4. The Financing Gap

Renewable energy has a different cost structure from conventional power. Almost all of the cost of a solar or wind plant is paid upfront, before it produces any electricity, while the fuel itself is free. The price at which a project can sell its electricity therefore depends heavily on the cost of the capital used to build it. In the Arab world today, finance rather than technology has become the binding constraint on the transition. The gap between what is needed and what is available has two dimensions: volume and price.

On volume, the investment required is large and rising. The IEA estimates that power sector investment in the Middle East and North Africa reached USD 44 billion in 2024. It is projected to rise by about 50% by 2035, with nearly 40% of the total directed to electricity grids rather than to power plants. Over the same period, the region's total power capacity is set to expand by more than 300 GW and its solar capacity to increase tenfold. By comparison, the announced cost of foreign-backed renewable projects in the Arab region averaged roughly USD 16 billion per year over the 22 years to 2024. This investment was also heavily concentrated. Egypt, Morocco, the UAE, Mauritania and Jordan alone accounted for about 69% of the projects and 83% of their announced cost, according to Dhaman.

On price, the gap is even wider. The IEA's survey of financiers found that the cost of capital for utility-scale solar projects in emerging and developing economies is well over twice that in advanced economies. Financing costs can make up around half or more of the final cost of the electricity. Within the Arab world, the difference between the Gulf and the rest of the region follows the same pattern. Gulf projects, backed by creditworthy state buyers and strong sovereign balance sheets, achieve tariffs among the lowest in the world. In Saudi Arabia's sixth tender round, the Dawadmi wind project was awarded at about 1.34 US cents per kWh, which the Saudi Power Procurement Company described as the lowest cost ever recorded for wind power. Projects in the region's energy-importing countries use the same panels and turbines but usually pay more to finance them, as international lenders apply higher premiums linked to sovereign credit ratings and currency movements. Fitch's assessment of power sector investment risk, cited by Dhaman, placed Kuwait, Oman, Qatar, Saudi Arabia and the UAE at the top of its ranking of Arab markets in 2025, followed by Morocco, Egypt and Algeria.

The Arab financing gap is therefore less a shortage of funding in aggregate than a problem of allocation. Capital is most abundant in the Gulf, where the need for external finance is smallest, and less readily available in the energy-importing economies, where the need is greatest. The

events of 2026 have added a new layer to this problem. Bond issuance in the Middle East and North Africa fell by 12% in the first quarter of 2026 as geopolitical tensions cooled market activity. The World Bank's October 2026 regional update expects the disruption to weigh temporarily on economic activity in the GCC in 2026, which may lead governments to review the timing of some state-funded spending. GCC debt markets nonetheless raised USD 102.7 billion in bonds and sukuk in the first half of 2026, 6.5% more than a year earlier. Even so, the episode is a reminder that the transition cannot rely on public budgets alone.

5. Public and Development Finance

Public funding remains the foundation of green energy investment in the Arab world, but it works differently in different parts of the region. In the Gulf, the state acts mainly as an investor, deploying sovereign wealth and state-owned developers to build projects at scale. Outside the Gulf, the state's main role is to make projects bankable, and it works closely with development lenders and concessional funds to share risks with private investors. Both models offer lessons for the region as a whole.

In Saudi Arabia, the Public Investment Fund (PIF) is the anchor of the national programme, developing large solar projects with partners and arranging the debt to build them. In October 2025, financing of about USD 6 billion was secured for five solar plants with a combined capacity of 12 GW, developed by ACWA Power with PIF and Aramco. It was one of the largest renewable financings in the region. In the UAE, Masdar, owned by state-linked entities, has grown into one of the world's largest renewable developers. Its portfolio reached 65 GW by early 2026, of which 45 GW is operational, under construction or committed. Masdar targets 100 GW by 2030 and plans to deploy a further USD 30 to 35 billion to reach it. The UAE also launched ALTÉRRA, a USD 30 billion climate investment vehicle announced at COP28, which aims to mobilise USD 250 billion in climate finance by 2030. These institutions give the Gulf a pool of patient capital that few regions can match. They increasingly invest beyond their own borders, as Masdar and Saudi Arabia's ACWA Power have done across North Africa.

Outside the Gulf, Morocco's Noor Ouarzazate solar complex shows how public institutions can launch a market almost from scratch. The Moroccan Agency for Sustainable Energy (MASEN) raised loans and grants from a group of development partners and on-lent the funds to the project companies. These partners included the World Bank, the African Development Bank, the European Investment Bank, Germany's KfW, France's AFD, the European Commission and the Clean Technology Fund. ACWA Power was selected through competitive tender as lead sponsor, holding 70% of Noor II and 75% of Noor III, while MASEN kept a 25% stake in each. The second and third phases alone cost about USD 2 billion, a sum that private investors would not have committed alone to a costly technology in a new market. The lesson is that a dedicated public agency, able to pool concessional finance and run transparent tenders, can turn a country's natural resources into a bankable pipeline.

Egypt's Nexus of Water, Food and Energy programme, known as NWFE and launched in 2022, shows a newer model: the country platform. Rather than financing projects one by one, Egypt packaged a pipeline of renewable projects together with grid investments and the retirement of old fossil fuel plants. The European Bank for Reconstruction and Development (EBRD) is the lead partner for the energy pillar. By March 2026, more than 10 GW of renewable power purchase agreements had been signed and almost 6 GW had reached financial close. The programme had mobilised USD 5 billion of private investment, half of the target set for the end of 2028. Some EUR 350 million was also structured for transmission reinforcement with KfW and AFD, and

more than 1 GW of inefficient fossil fuel generation was permanently closed. The platform approach gives investors visibility over a multi-year pipeline and gives development lenders a single framework through which to coordinate their support.

Arab development institutions have an important role to play in extending these models. The Islamic Development Bank, the Arab Fund for Economic and Social Development and the OPEC Fund already finance energy projects across the region. Dhaman and the World Bank Group's Multilateral Investment Guarantee Agency (MIGA) provide guarantees against political and commercial risks. The greatest value of such institutions lies in blended finance, where a limited amount of public or concessional funding, used for guarantees, first-loss tranches or local currency lending, unlocks a much larger volume of private capital. In a region where capital is plentiful but unevenly distributed, this catalytic role is likely to matter more than the size of any single loan.

6. Private Finance and the Role of Arab Banks

Private developers, often in partnership with state-owned companies, build a large share of new renewable capacity in the Arab world, and they finance their plants mainly with bank debt. This makes the transition, to a large extent, a banking story. Understanding how renewable projects are structured, and where Arab banks fit within that structure, is therefore essential to understanding how the financing gap can be closed.

The dominant structure in the region is the independent power producer (IPP) model. A government or state utility runs a competitive tender, and the winning developer signs a long-term power purchase agreement, usually for 20 to 30 years. Under this agreement, the state buyer commits to purchase the electricity at a fixed price. The developer then finances the plant largely with long-term project debt that is repaid from those sales. Saudi Arabia's sixth tender round illustrates the model at scale. In October 2025 it awarded 4.5 GW across five wind and solar projects to consortia that included Masdar, Saudi Electricity Company with EDF, Al Jomaih Energy and Water with TotalEnergies, and KEPCO with Nesma and Etihad Water and Electricity. The strength of the model lies in the long-term contract, which turns an uncertain power market into a predictable stream of revenue that banks can lend against.

Egypt's Benban solar park, near Aswan, shows how long-term fixed-price contracts with a state buyer can attract private developers and banks, including Arab banks, in a country outside the Gulf. Rather than through a tender, Benban was built under a feed-in tariff programme that guaranteed fixed prices to private solar producers. The park comprises 32 separate plants developed by different investors. In 2017, a consortium led by the International Finance Corporation arranged USD 653 million of debt for 13 of these plants, with a combined capacity of up to 752 MW. The lenders included Arab Bank of Bahrain and Europe Arab Bank alongside the African Development Bank, the Asian Infrastructure Investment Bank, ICBC and several European development lenders. The case shows that when the price and the buyer are secure and a development lender anchors the deal, commercial banks, Arab banks among them, are willing to lend for the long term.

Gulf banks have since become major players in their own right. First Abu Dhabi Bank (FAB) was named the Middle East's best bank for sustainable finance in 2026 by Euromoney. In 2025 it facilitated more than USD 31.1 billion of sustainable finance across over 53 transactions, mostly in the Middle East and North Africa, and it has passed 75% of its target of AED 500 billion (about USD 136 billion) by 2030. In financing the 12 GW of Saudi solar plants described above, FAB underwrote USD 1.2 billion of a USD 4.5 billion non-recourse loan. This shows that Arab banks can now lead the largest renewable deals rather than simply participate in them.

Utility-scale projects are only part of the opportunity. A large share of the region's potential lies in distributed solar on rooftops, factories and farms, in energy efficiency, and in the small and medium-sized enterprises that supply and install equipment. These segments need smaller loans, standardised products and credit assessment that recognises the savings an installation generates. The rapid spread of rooftop solar in Lebanon, financed largely by households and businesses themselves, shows the scale of demand that dedicated bank products could serve. Bank finance can make such installations more affordable for users and help raise their quality and safety standards. Banks that develop green consumer and SME lending products can capture this market while improving the quality of the installations they finance.

Regulators are reinforcing this shift. In November 2022, the Central Bank of Egypt issued binding sustainable finance regulations. They require banks to set up dedicated sustainability units, to consult environmental experts accredited by the Ministry of Environment when assessing the risks of large projects, and to prepare annual sustainability reports for the Central Bank. Gulf regulators have moved in the same direction through sustainable finance principles and disclosure guidance. Such frameworks matter because they build the internal capacity banks need to identify, price and report green lending. This capacity is in turn a precondition for refinancing that lending in the capital markets.

7. Green Bonds and Green Sukuk

As renewable projects grow larger and banks approach the limits of their balance sheets, capital markets offer a way to refinance existing loans and raise new long-term funds. Green bonds and green sukuk reserve their proceeds for eligible environmental projects. They allow Arab issuers to reach international investors with sustainability mandates and, in some cases, to borrow on better terms. For the Arab world this channel has a particular advantage, because Islamic finance offers a ready-made structure, the sukuk, that appeals to a large and growing pool of investors.

The market has grown quickly from a modest base. A report prepared by BloombergNEF for the Dubai Financial Services Authority and the Hong Kong Monetary Authority found that labelled sustainable debt issuance across the Middle East and North Africa (MENA) and emerging Asia-Pacific markets reached a record USD 94 billion in 2024, about three times its 2020 level. Across these markets, green debt made up 52% of labelled issuance, and renewable energy was the largest single use of proceeds, financing about 36% of labelled bonds. Within MENA, issuance remains highly concentrated, with the UAE and Saudi Arabia accounting for about three quarters of the total in recent years.

Banks and sovereigns opened the market. National Bank of Abu Dhabi, now part of FAB, issued the region's first green bond in 2017, raising USD 587 million. Egypt issued the region's first sovereign green bond in 2020, raising USD 750 million, and in doing so built the framework and reporting systems that later sovereign issuers could follow. Saudi Arabia, after publishing its green financing framework in March 2024, issued its first sovereign green tranche in February 2025, a EUR 1.5 billion seven-year bond within a EUR 2.25 billion issue. Corporate and bank issuance has since broadened. Saudi Electricity Company raised USD 1.25 billion through its fourth green sukuk in February 2025. Emirates NBD raised USD 1 billion in January 2026 through USD 700 million in green bonds and USD 300 million in blue bonds, the latter dedicated to marine and water-related projects. Among Islamic banks, Dubai Islamic Bank made its debut with a USD 750 million sustainable sukuk in November 2022, and Abu Dhabi Islamic Bank with a USD 500 million green sukuk in November 2023.

Green sukuk deserve particular attention. In 2023, green sukuk issued in the region totalled about USD 6.5 billion and accounted for more than a quarter of the region's green debt for the first time. In 2025, sustainable sukuk issuance from the Middle East reached a record USD 11.4 billion, up from USD 7.9 billion a year earlier, according to S&P Global Ratings. Guidance on green, social and sustainability sukuk published in 2024 by the International Capital Market Association, the Islamic Development Bank and LSEG has improved transparency for investors. The region's sustainable bond volumes rose by about 3% in 2025 while global volumes fell by 21%. This momentum has not carried into 2026, however. Middle East sustainable bond issuance fell to about USD 7 billion in the first half of the year, and sustainable sukuk fell to USD 2.1 billion from USD 5.1 billion a year earlier. In August, S&P Global Ratings cut its 2026 forecast for the region from USD 20 to 25 billion to USD 15 to 20 billion.

Two areas for development stand out. First, most issuance so far has come from the Gulf, and wider participation by energy-importing countries, which stand to gain most from long-term finance, would deepen the market. Second, most labelled debt is issued in US dollars or euros. This suits Gulf issuers with pegged currencies, while issuers that earn their revenues in other local currencies must manage the resulting currency risk. Developing local currency green sukuk markets, supported by domestic pension funds, insurers and takaful operators, would allow more of the region to use this channel without taking on foreign exchange risk.

8. Challenges and Risks

Despite the progress described above, the Arab green energy transition faces challenges that need to be addressed to keep it on track and contain its cost. These risks are not all of the same kind. Some are structural and concern the physical power system, some are financial and concern the way projects are paid for, and some arise from markets and geopolitics. Each group calls for a different response.

The structural barriers come first. Electricity grids across the region were designed around a small number of large fossil fuel stations rather than thousands of megawatts of variable solar and wind power spread across remote desert sites, which is why the IEA expects nearly 40% of future power investment to go to grids. Storage is the second priority; as solar output must be shifted to the evening peak. Saudi Arabia had tendered about 30 GWh of battery storage by 2025, of which 8 GWh was connected, and the UAE's 19 GWh project shows the scale now required. Cross-border interconnection, which would allow countries to trade surplus power, is advancing, although such projects take time to build. The 3,000 MW link between Egypt and Saudi Arabia, a landmark regional project, was in its final testing stage in October 2026, with an official launch planned for November.

The financial barriers follow. In most Arab countries the state utility is the main buyer of power, so the bankability of projects depends closely on its financial strength, and strengthening utility finances remains central to attracting long-term lenders. Currency risk is a second consideration. Equipment and debt are priced in dollars, while revenues outside the Gulf are earned in local currencies whose movements lenders must take into account. The room that governments have to provide guarantees also varies from one country to another. Finally, energy prices that do not yet reflect full costs can make clean power appear less competitive than it really is.

Market and geopolitical risks complete the picture. As green labels become more common, investors are paying closer attention to greenwashing, and the continuing harmonisation of disclosure standards across Arab markets will make it easier to compare issuers. The events of 2026 have shown how quickly geopolitical shocks can tighten financing conditions. Shipping

through the Strait of Hormuz has remained heavily restricted since March, with attacks on vessels continuing into October, and marine insurance cover was withdrawn early in the crisis. Bond issuance in the region fell in the first quarter of the year, and sustainable issuance slowed in the first half. Such shocks raise the cost of imported equipment and of capital at the same time, although they also strengthen the long-term case for domestic, fuel-free power.

9. Conclusion and Recommendations

The Arab world enters the green energy transition with clear advantages: abundant sun and wind, some of the lowest renewable power costs in the world, deep pools of capital and an experienced banking sector. The task now is to move capital from where it is plentiful to where it is needed, at a price that makes projects viable across the whole region. The events of 2026 have also made clear that energy security and the energy transition are no longer separate goals.

At the level of governments, clear long-term targets, regular tender schedules and standardised power purchase agreements would allow developers and banks to plan over several years, while investment in grids, storage and interconnection keeps pace with new generation. Central banks and regulators can adopt green taxonomies and disclosure rules aligned with each other and with international standards, and support the growth of local currency bond and sukuk markets.

At the level of banks, priority should go to specialised project and sustainable finance teams, green lending products for households and SMEs, and green bond and sukuk issuance. Gulf banks can also partner with banks in energy-importing countries through syndicated loans, risk sharing and co-financing with development lenders. Development institutions, including the Arab funds, can focus on guarantees, first-loss instruments and local currency finance, while the Union of Arab Banks can bring banks, regulators and development lenders together to build common standards.


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