



# Chinese New Energy Enterprises “Going Abroad” Series: Sailing to the Middle East



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# Preface



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With the in-depth advancement of sustainable development, global demand for new energy products, services, and technologies has significantly increased, and China is playing a significant role in promoting global green and low-carbon development. The new energy industry has not only achieved remarkable success in the domestic market but is also internationalising the energy industry by actively expanding into international markets, contributing Chinese expertise and solutions to global green development efforts.

Countries in the Middle East are actively seeking to diversify their economic development and reduce their over-reliance on traditional energy sources, and the pace of their energy transformation is accelerating. As China and the Middle East collaborate to build a community with a shared future, both sides are expected to deepen cooperation in the new energy sector, including by jointly building renewable energy power generation projects, cooperating on energy technology R&D, and strengthening energy policy coordination.

KPMG China has long been focused on the global new energy industry and has continued to conduct in-depth research in this area. We are delighted to see more Chinese new energy companies choosing to venture into the Middle East, showcasing their advanced technology and rich market experience. However, going overseas also means "rowing in the midstream of the river, where waves block the boat." Whether viewed from a macro perspective in terms of the volatile situation in the Middle East or a practical perspective in terms of issues such as the commercial cycle and economic returns, the challenges facing Chinese new energy companies cannot be overlooked.

As reflected by the motto "Riding the waves of the sea with determination," we look forward to seeing China's new energy sector fearlessly face challenges and showcase the country's strength. We also hope that the industry will take root and continue to grow. To support Chinese new energy companies in advancing overseas, this report delves into the background, current situation, and trends of Chinese new energy companies entering the Middle East and summarises a comprehensive, one-stop overseas strategy that spans the strategic level, planning level, business level, operational level and implementation level. KPMG has a global network of resources and professional teams, with a solid business foundation and rich market experience in the Middle East. In the years ahead, KPMG China will maintain close collaboration with member firms in the Middle East, and remain committed to providing "full lifecycle" services to support the internationalisation of Chinese new energy enterprises.

# Abstract

The overseas market has become a crucial driver for Chinese new energy enterprises seeking expansion and growth. To better understand this trend, KPMG China has launched the "Series on Chinese New Energy Enterprises Going Abroad," which offers professional market insights and in-depth data analysis and reveals the development potential and business opportunities in major overseas regions that are important to enterprises in the new energy sector.

As the second installment in the "Series on Chinese New Energy Enterprises Going Abroad," this report focuses primarily on energy transition needs in the Middle East and North Africa (MENA) region, providing deep analysis of the background, current situation, development trends, and strategies for Chinese new energy enterprises entering the Middle East, with a view to serving as a valuable reference for the industry. The main insights of the report are as follows:

## Analysis of the Background for Chinese New Energy Enterprises Going Abroad in the Middle East



### The world's "oil reservoir" is accelerating its energy transition

The MENA region is located in the area of "one bay, two oceans, three continents, four straits, and five seas," starting from eastern Iran in the Persian Gulf and ending at the western coasts of Morocco and Mauritania in the Atlantic Ocean, encompassing a total of 21 economies. For a long time, the MENA region has played the role of the world's "oil reservoir" in global economics and trade. However, countries in the region urgently need to break away from their dependence on the oil industry and transform their economic development models in order to diversify their industrial structures. In recent years, MENA countries have gradually realised the urgent need to transition their energy sector and have issued various national energy transition strategies. Driven by top-level planning in these countries, the proportion of renewable energy generation in the MENA region is expected to continue to rise in the future.



### The appeal of the Middle East for Chinese new energy enterprises

The MENA region has a natural advantage with abundant reserves of solar and wind resources. Based on its strong endowments of solar and wind resources and geographical advantages, the region can vigorously develop large-scale concentrated photovoltaic and wind power projects. Driven by the development of photovoltaic and wind power, opportunities for horizontal and vertical industrial chain development will gradually unfold, and the potential for the development of the energy storage and hydrogen industries is also enormous.

The scale of energy investment in the region is expected to be significant in the future, with solar, wind, hydrogen, and storage being key focus areas. In recent years, the business environment in Gulf countries such as the United Arab Emirates (UAE) and Qatar has continued to improve, as reflected in their tax systems, easing of restrictions on foreign enterprises' equity ratios, prioritising the protection of expatriate workers' rights, and new energy market policies. This trend has continuously encouraged Chinese new energy companies to enter the region.





## The driving force for Chinese new energy enterprises to go global in the Middle East

With the continuous upgrading and improvement of the industrial chain, Chinese new energy enterprises have accumulated advanced technology, huge funds, excellent talents, mature business models, and other advantages. However, competition among industries, regions, countries, and enterprises has also intensified, and some leading enterprises are accelerating their efforts to explore overseas markets. In the process of going abroad, enterprises face uncertainties such as global competition and trade barriers, while needing to engage in diversified planning to disperse risks. Compared with Europe, the United States, Southeast Asia, and other regions, High Net Worth Individuals (HNWI) and large enterprises in the MENA region have stronger payment capacity, which is conducive to ensuring that Chinese enterprises going overseas can obtain a stable income. In addition, compared with infrastructure construction projects with long cycles and high investment needs, renewable energy power generation and other projects have advantages such as short cycles and clear profit models. In this context, Chinese enterprises can use their technical advantages and commercialisation experience to quickly seize market opportunities.

## Analysis of the Status Quo for Chinese New Energy Enterprises Going Abroad in the Middle East

The MENA region is one of the new areas of focus for Chinese new energy enterprises' overseas strategies. Relevant fields include photovoltaics, wind power, energy storage, hydrogen energy, and other sub-sectors, covering silicon wafers, modules, batteries, and other segments of the industrial chain. Methods for going overseas include export trade, project contracting, and greenfield investment; and Chinese companies are continuously exploring diversified models such as investing in the manufacture of new energy equipment and participating in new energy power generation, energy storage, and clean energy project operations.



### Photovoltaics: Models are mature, taking diversified forms such as project investment and factory investment.

Chinese enterprises initially entered the MENA market mainly by participating in the construction of power plants and other infrastructure projects. However, as the local new energy market has matured and technological progress has reduced costs, the bidding prices for independent power producer (IPP) projects have generally declined, putting continuous pressure on the profit margins of Chinese contractors.

In addition, the scale of China's photovoltaic component exports to the MENA region has been increasing year by year, with particularly significant growth in the UAE and Saudi Arabia markets. Some countries in the Middle East have relatively friendly policies towards Chinese companies building factories locally; and in order to seize the local market in a timely manner, since 2023, China's photovoltaic production capacity has been going overseas at an accelerated pace.



### Wind power: With a focus on wind turbine exports, this sub-sector is expected to enter a period of rapid growth in demand.

Currently, China's wind power exports to the MENA region mainly consist of wind turbine exports. Over the past five years, the cumulative value of China's wind turbine exports to the MENA region has reached RMB 1.83 billion, with Egypt accounting for RMB 910 million, nearly half of the amount. The wind energy resources along the coast of the Red Sea, southwest of the Nile River, and in the southern part of the Western Desert, are extremely abundant. Additionally, the Egyptian government actively supports the development of its wind power industry; and as Chinese wind turbine manufacturers are global leaders in terms of competitiveness, they are poised to enter a period of increased demand.



### Energy storage: Some battery companies are actively positioning themselves, and Saudi Arabia is expected to drive demand for large-scale energy storage.

In recent years, Chinese energy storage companies have continued to put down roots in global markets, and they have established relatively complete marketing networks in the MENA region. Currently, they mainly deliver products and technical solutions and are gradually competing in the local energy storage market by cooperating in energy storage projects and investing in factory construction, following an integrated development path of "investment-construction-operation." With the continuous upgrading of power infrastructure and the rise in the proportion of renewable energy installations in the MENA region, the overall installed capacity of grid energy storage in the region is expected to continue to expand, with total demand amounting to no less than 5 gigawatt-hours over the next two years.

**H2**

**Hydrogen energy: In the early stage, enterprises are focusing on international cooperative demonstration projects, with the initial outline of an outbound model emerging.**

In recent years, countries such as Saudi Arabia, the UAE, and Egypt have introduced hydrogen development plans and advocated for hydrogen development through international cooperation. Some domestic enterprises have already entered the Middle East's hydrogen market, initially forming three types of models: comprehensive new energy business development; engineering, procurement and construction (EPC) cooperation; and independent overseas market development. Notably, there are currently few actual projects implemented by Chinese hydrogen companies in the Middle East; but for Chinese companies, there should be numerous opportunities in the future for hydrogen exports to the Middle East.

## Trends for Chinese New Energy Enterprises Going Abroad in the Middle East



### Analysis of opportunities

The Belt and Road Initiative lays the foundation for future energy cooperation between China and Arab countries. In the field of new energy, China and MENA countries have the same policy development orientation, which is expected to stimulate broad opportunities for cooperation. MENA countries generally have a more urgent need for development and energy transformation, while China is accelerating the formation of new quality productive forces. In photovoltaics, wind power, energy storage, hydrogen energy, and other industries, China not only has more advanced technology but also has a more mature and complete industrial chain foundation. As a result, both sides can fully match elements of supply and demand in terms of technology, markets, and capital.

Construction projects undertaken by NEOM and others are expected to unlock trillion-dollar market potential. Renewable energy and clean energy projects involving Chinese enterprises are becoming important components of the power grids in Gulf countries and in the North African power corridor, with Saudi Arabia, the UAE, Morocco, and other countries becoming key partners. According to statistics from the Middle East Economic Digest (MEED), the total amount of renewable energy projects implemented and pre-implemented in MENA countries in 2023 stood at USD 214.4 billion. For example, the NEOM project in Saudi Arabia aims to create a model "future city" under the Vision 2030 framework, using wind energy, solar energy, and other renewable energy sources to achieve 100% zero emissions; and its total investment scale is expected to reach USD 500 billion (approximately RMB 3.6 trillion), potentially creating a trillion-dollar market.

Chinese companies continue to hone their capabilities in the construction of the global value chain for new energy. In recent years, Chinese new energy enterprises have been quite active in terms of outbound activity, reflecting a shift in the layout of industries, such as photovoltaics transitioning from "Made in China, Sold Overseas" to "Made Globally, Sold Globally." Amid global competition, enterprises have gradually honed their overall capabilities, building a Chinese new energy industry chain that is highly resilient and resistant to risk. In the future, they will continue to strengthen their capabilities as they lay a solid foundation for grasping broader global market space.



## Analysis of challenges

The energy transformation in the MENA region still faces many uncertainties. With MENA countries accelerating the implementation of energy transformation strategies and promoting the launch of new energy projects, the installed capacity of renewable energy in the region has increased significantly, but the power generation structure has not fundamentally changed, mainly because the region's energy transformation still faces many uncertainties. The MENA region's energy transformation is being affected by factors such as the volatile geopolitical situation in the region, the long-term dependence of the regional economy on traditional energy, the high dependence of new energy technology on European and American standards, and the single development model of renewable energy projects.

Moreover, the complex business environment makes it difficult to make decisions using the offshore model. The model used by Chinese new energy enterprises going to the Middle East is changing from single export trade to a more flexible investment model, and a considerable number of enterprises hope to explore the local market through transnational investment. However, in this context, enterprises will face a more complex business environment, and they will need to weigh the advantages and disadvantages of different entry models and choose carefully to effectively integrate their own advantages with local markets.

The economy of new energy projects involving Chinese enterprises needs to be improved. At present, Chinese enterprises mainly engage in the local market by participating in large-scale new energy independent power producer (IPP) projects released by MENA countries, mainly as equipment supplier and engineering contractors, and they face high profit pressure. In the long run, more enterprises and countries will likely enter the MENA new energy market, and market competition should grow fiercer, which may further hamstring the economy of Chinese enterprises in undertaking related projects.

## Insights into the Middle East Strategy for Chinese New Energy Enterprises Going Abroad

Harnessing diverse experience across multiple service lines, including audit, consulting, and taxation, KPMG China has deeply analyzed the background, current situation, and trends of Chinese new energy companies going abroad, summarising a three-dimensional, one-stop overseas strategy that covers the strategic level, planning level, business level, operational level, and implementation level, with a view to helping Chinese new energy companies navigate the Middle East.



### Strategic level: Systematic design and precise positioning

When Chinese new energy companies decide to expand into the Middle East market, their top priority should be to use systematic thinking to build a high-level strategic framework in order to accurately position target markets and customers, formulate reasonable overseas expansion plans, and ensure an advantage amid fierce market competition. This process not only involves deep market insight but also broad and prospective strategy formulation, with a focus on macro-environment analysis, industry environment analysis, enterprise resource capability analysis, and the formulation of overseas strategies.



### Planning level: In-depth research and reasonable decision-making

It is crucial for Chinese companies to conduct in-depth research and customer analysis before officially entering the Middle East market. Information should be collected through multiple channels to understand the size of the new energy market segment, the competitive landscape, customer habits, etc., in order to develop more targeted market strategies. For example, to adapt to customer characteristics, enterprises can adopt precise dynamic cost management strategies based on customer price sensitivity, and pre-designed cultural integration plans can be devised to address differences in cross-cultural business communication.





### **Business layer: Refined assessment and activation of resources**

Chinese new energy enterprises can maximise the economic and social benefits of their projects when actually operating in the Middle East market through meticulous project feasibility assessments and effective resource integration strategies. In terms of project feasibility assessment, first, comprehensive due diligence should be conducted on relevant business projects; and second, the project's feasibility should be thoroughly examined from aspects such as the reliability of construction conditions, technological maturity, and return on investment, to prevent hasty decisions. Resource integration strategies should focus on whether the project complies with the target country's legal regulations and appropriately leveraging relationships such as those with chambers of commerce.



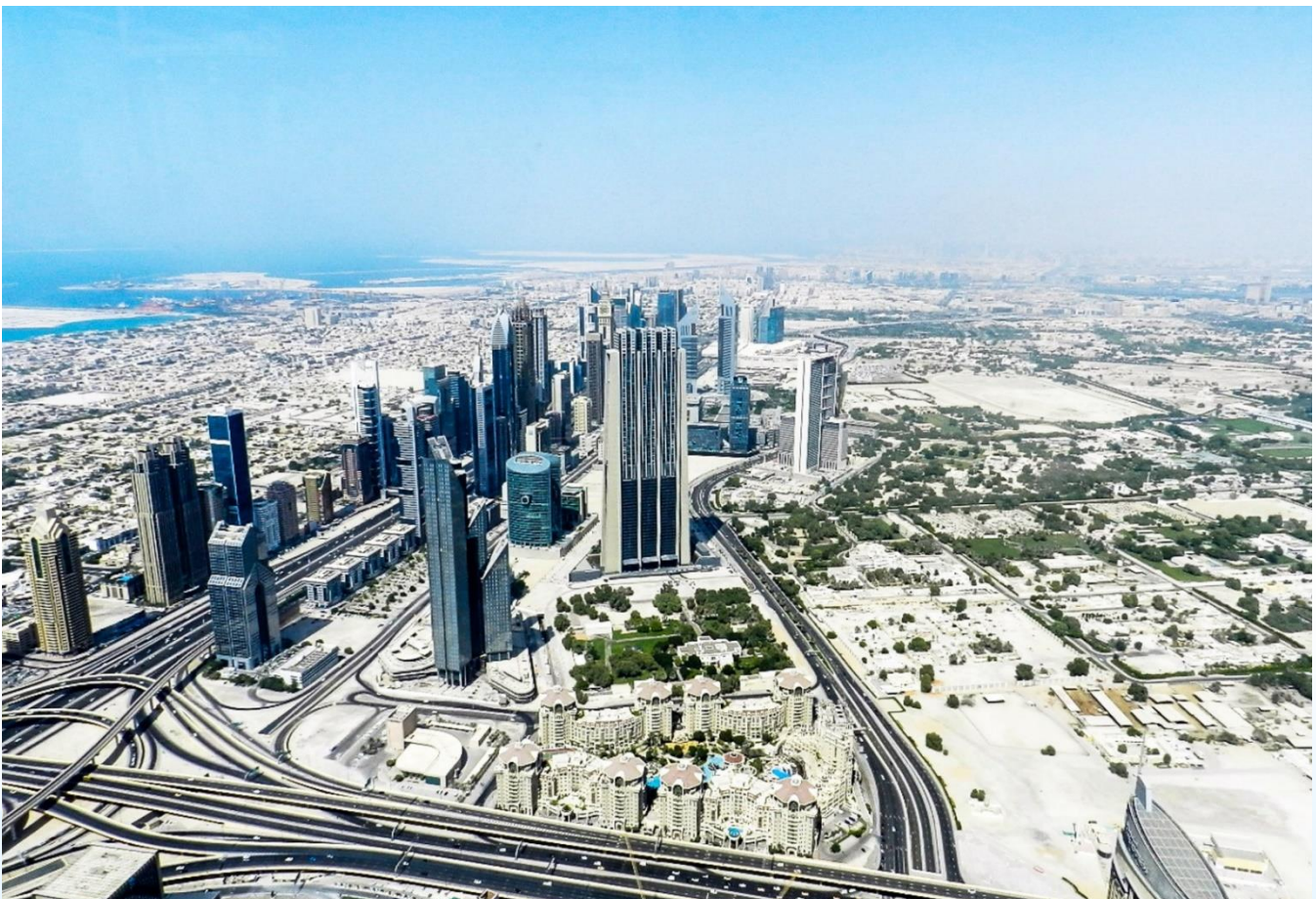
### **Operational layer: Comprehensive control and streamlined processes**

Business operations involve a comprehensive system that covers various areas, including people, finance, and materials. Further optimising business processes will ensure efficient operations and the sustainable development of overseas business. Based on its extensive service experience, KPMG has formed an all-inclusive service solution covering areas such as human resource management, financial management, tax planning, and supply chain construction.



### **Implementation layer: Localisation and comprehensive improvement**

Going abroad is merely the method—taking root is the ultimate goal. For Chinese new energy companies going to the Middle East, localisation is not just a goal but also the starting point for expanding in the local market. Chinese enterprises should integrate with unique cultural customs, laws and regulations, and business practices in the Middle East while engaging in localisation in multiple aspects, including products, services, marketing, human resources, and supply chains, to comprehensively enhance the competitiveness of their overseas enterprises in the market.





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## 01

# Analysis of the Background for Chinese New Energy Enterprises Going Abroad in the Middle East



1.1

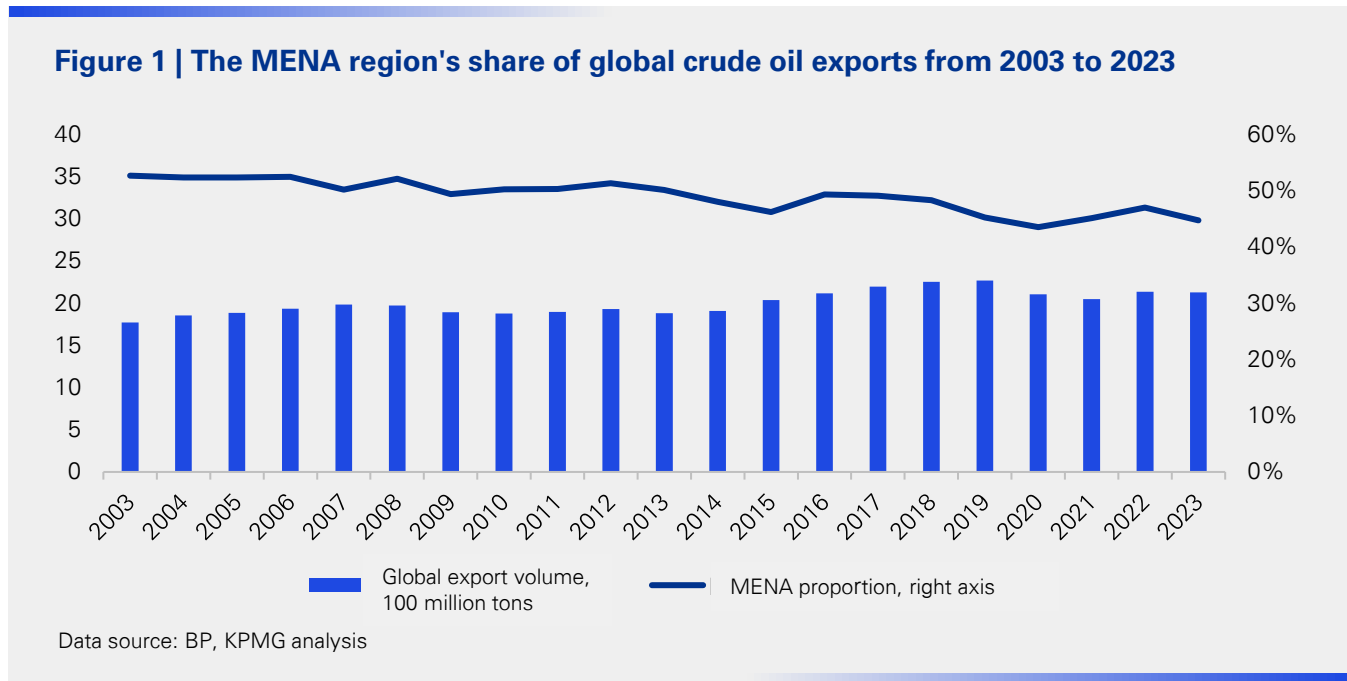
The world's "oil reservoir" is accelerating its energy transition

1.1.1.

The regional economy is highly dependent on traditional energy sources, and the need to adjust the energy structure is becoming increasingly urgent.

The Middle East and North Africa (MENA) region is located in the area of "one bay, two oceans, three continents, four straits, and five seas." It stretches from eastern Iran in the Persian Gulf to the western coasts of Morocco and Mauritania in the Atlantic Ocean, encompassing 21 economies with a total area of 11.38 million square kilometers and a population of approximately 500 million. It is a key hub for global connectivity and an important region for China's Belt and Road Initiative.

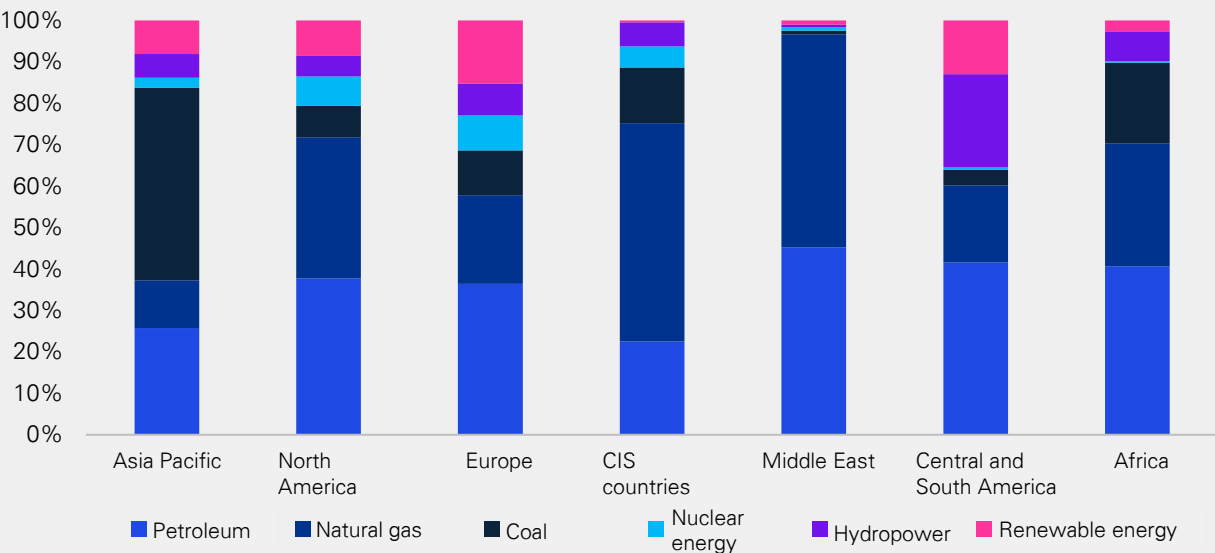
For a long time, the MENA region has played the role of the world's "oil reservoir" in global trade and economics. According to data from British Petroleum (BP), crude oil exports from the MENA region as a proportion of total global exports remained above 50% from 2003 to 2014, although this figure has generally trended downward. In 2023, with total global crude oil exports reaching 2.1 billion tons, the share exported by the MENA region is still close to 45% (Figure 1).



However, with the US shale gas revolution adjusting the structure of the global energy market, and with countries actively pursuing energy transformation, MENA countries urgently need to break away from their dependence on the oil industry, transform their economic development model, and diversify the development of their industrial structures.

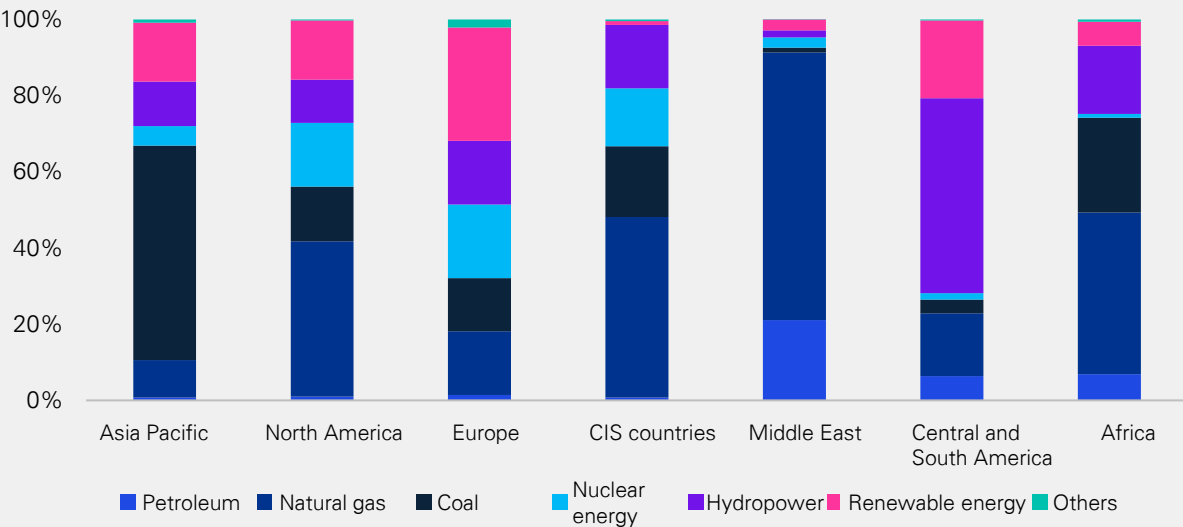
In addition, energy consumption in the Middle East region<sup>1</sup> itself is highly dependent on oil and natural gas resources, making the need to adjust the energy structure increasingly urgent. In terms of primary energy consumption, the combined share of oil and natural gas in the Middle East's primary energy consumption in 2023 was 96.6%, with renewable energy accounting for less than 1%. In the same year, in Europe—which is a leading region in the energy transition—this proportion exceeded 15% (Figure 2). In terms of power generation, in 2023, renewable energy as a share of power generation in the Middle East was only 2.8%, while this figure reached 29.7% in Europe (Figure 3).

**Figure 2 | Primary energy consumption structure by region in 2023**



Data source: BP, KPMG analysis

**Figure 3 | Power generation structure by region in 2023**



Data source: BP, KPMG analysis

<sup>1</sup> In general, when this report refers to the Middle East, it means the MENA region, but when charts specify the Middle East region, this does not include North African countries



1.1.2. Top-level planning in multiple countries is expected to lead to a continued increase in the share of renewable energy generation.

In recent years, the MENA countries have gradually realised the urgency of the energy transition and have issued national energy transition strategies, and some countries have already set clear transition targets (Table 1). Among them, the UAE was the first country in the Middle East to announce a carbon neutrality timeline, with plans to achieve 44% of its power generation from renewable energy, 6% from nuclear power, 38% from natural gas, and 12% from clean coal by 2050.

Table 1 Energy transition targets of some MENA countries

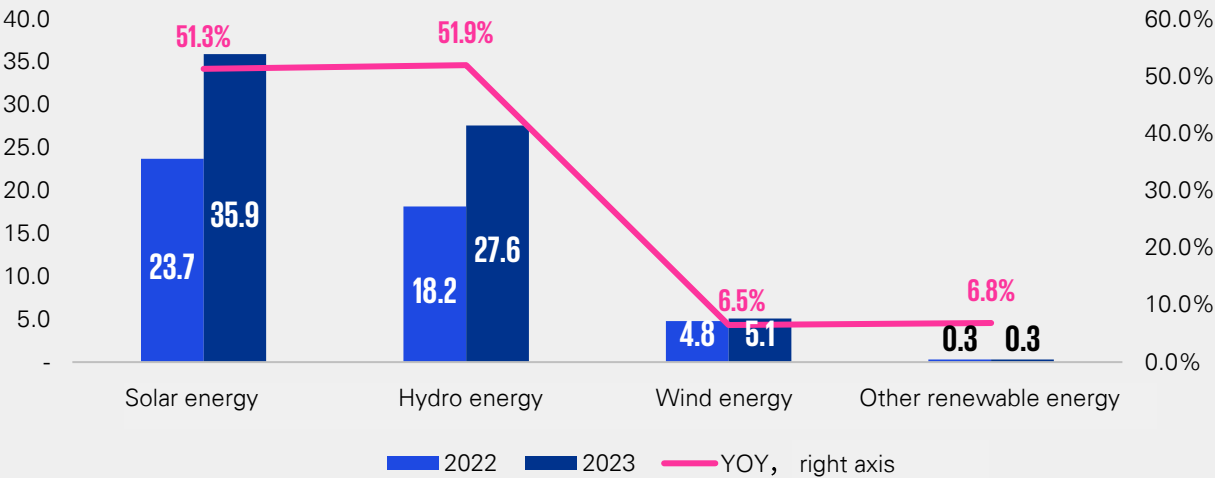
<div><div>Saudi Arabia</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>30%</b> share of electricity generation by 2030</div><div>The current situation in 2023</div><div>Renewable energy generation reached 5.8 terawatt-hours, accounting for <b>1.4%</b> of total generation</div></div>	<div><div>United Arab Emirates</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>32%</b> share of electricity generation by 2030</div><div>The current situation in 2023</div><div>Renewable energy generation reached 13.8 terawatt-hours, accounting for <b>8.4%</b> of total generation</div></div>
<div><div>Oman</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>30%</b> share of electricity generation by 2030</div><div>The current situation in 2023</div><div>Renewable energy generation reached 1.6 terawatt-hours, accounting for <b>3.6%</b> of total generation</div></div>	<div><div>Qatar</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>18%</b> share of electricity generation by 2030</div><div>The current situation in 2023</div><div>Renewable energy generation reached 1.5 terawatt-hours, accounting for <b>2.7%</b> of total generation</div></div>
<div><div>Kuwait</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>15%</b> share of electricity generation by 2030</div><div>The current situation in 2023</div><div>Renewable energy generation reached 0.2 terawatt hours, accounting for <b>0.2%</b> of total generation</div></div>	<div><div>Egypt</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>42%</b> share of electricity generation by 2035</div><div>The current situation in 2023</div><div>Renewable energy generation reached 24.8 terawatt-hours, accounting for <b>11.3%</b> of total generation</div></div>
<div><div>Morocco</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>52%</b> share of installed capacity by 2025</div><div>Reach a <b>70%</b> share of installed capacity by 2040</div><div>The current situation in 2023</div><div>Renewable energy generation reached 8.8 terawatt-hours, accounting for <b>20.9%</b> of total generation</div></div>	<div><div>Algeria</div><div></div></div>	<div><div>Renewable energy policy goals</div><div>Reach a <b>27%</b> share of electricity generation by 2035</div><div>The current situation in 2023</div><div>Renewable energy generation reached 0.7 terawatt hours, accounting for <b>0.9%</b> of total generation</div></div>

Data source: MENA countries' energy transition strategies, BP, KPMG analysis



In 2023, total renewable energy generated in the Middle East amounted to 68.9 terawatt-hours (TWh), representing a year-over-year increase of 46.7%. Apart from significant growth in hydropower, solar power saw a remarkable year-over-year growth rate of 51.3% (Figure 4). From a country perspective, the UAE, Israel, and Saudi Arabia led in solar power generation in 2023, with outputs of 13.7 TWh, 7.5 TWh, and 4.3 TWh, respectively. In this regard, Saudi Arabia and the UAE recorded year-over-year growth rates of 419.5% and 77.6%, respectively, which were significantly higher than the regional average, making them potential drivers of non-hydropower renewable energy growth in the region.

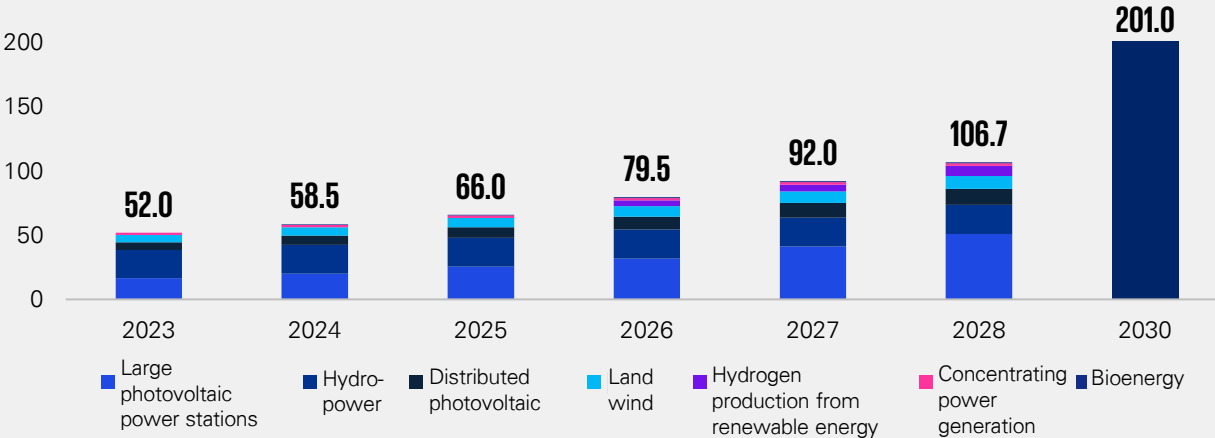
Figure 4 | Renewable energy power generation in the Middle East (terawatt hours)



Data source: BP, KPMG analysis

Driven by top-level planning in various countries, the proportion of renewable energy power generation in the MENA region is expected to continue to rise in the future, with large-scale photovoltaic power stations being the main driver. According to the energy transition plans announced by MENA countries, the International Energy Agency (IEA) expects that the target capacity of renewable energy installations in the MENA region will reach 201.0 gigawatts by 2030. Based on this estimate, the additional installed capacity of renewable energy from 2023 to 2028 could amount to 54.7 gigawatts; and by 2028, the cumulative installed capacity of renewable energy power generation is expected to stand at about 106.7 gigawatts, 48% being provided by large-scale photovoltaic power stations. Excluding hydropower, distributed photovoltaics and onshore wind power account for relatively high proportions (see Figure 5).

Figure 5 | Cumulative installed capacity forecast for renewable energy generation in the MENA region (gigawatts)



Data source: IEA, KPMG analysis



## 1.2 The appeal of the Middle East for Chinese new energy enterprises

### 1.2.1. World-leading wind and solar resources may drive the development of hydrogen storage.

The MENA region has abundant reserves of solar and wind resources. In terms of solar energy, the region receives 22%-26% of the total solar radiation on the Earth's surface. Its solar potential per square kilometer is equivalent to the energy produced by 1 to 2 million barrels of oil annually, which can meet at least 50% of global electricity demand. Regarding wind energy, the average wind speed in three-quarters of the region exceeds the minimum wind speed threshold for utility-scale wind farms. Countries such as Morocco, Egypt, and Tunisia rank among the highest globally in terms of wind speed<sup>2</sup>.

According to the Shell Global Energy Resources Database, in respect of the potential for concentrated photovoltaic development, Algeria, Libya, Saudi Arabia, and Egypt each rank among the top 10 globally. The global rankings for onshore wind development potential in countries such as Yemen, Saudi Arabia, Iran, and Oman are also very high (Table 2).

**Table 2** Rankings for the long-term development potential of solar and wind resources in the MENA region (by 2070)

Major countries	Distributed photovoltaic	Concentrated photovoltaic	Land wind	Sea wind
Algeria	42	<b>1</b>	77	115
Bahrain	160	164	143	123
Djibouti	151	81	98	162
Egypt	14	<b>8</b>	42	78
Iran	28	12	<b>17</b>	110
Iraq	30	29	32	148
Israel	112	101	163	191
Jordan	107	60	67	153
Kuwait	131	87	85	157
Lebanon	134	138	114	168
Libya	94	<b>2</b>	43	29
Malta	178	190	150	55
Morocco	35	28	41	58
Oman	127	24	<b>23</b>	64
Qatar	148	93	87	122
Saudi Arabia	55	<b>6</b>	<b>13</b>	133
Syria	60	52	34	149
Tunisia	78	42	57	51
United Arab Emirates	115	50	105	163
Palestine	99	199	207	225
Algeria	27	22	<b>11</b>	63

Data source: Shell Energy Database, KPMG analysis

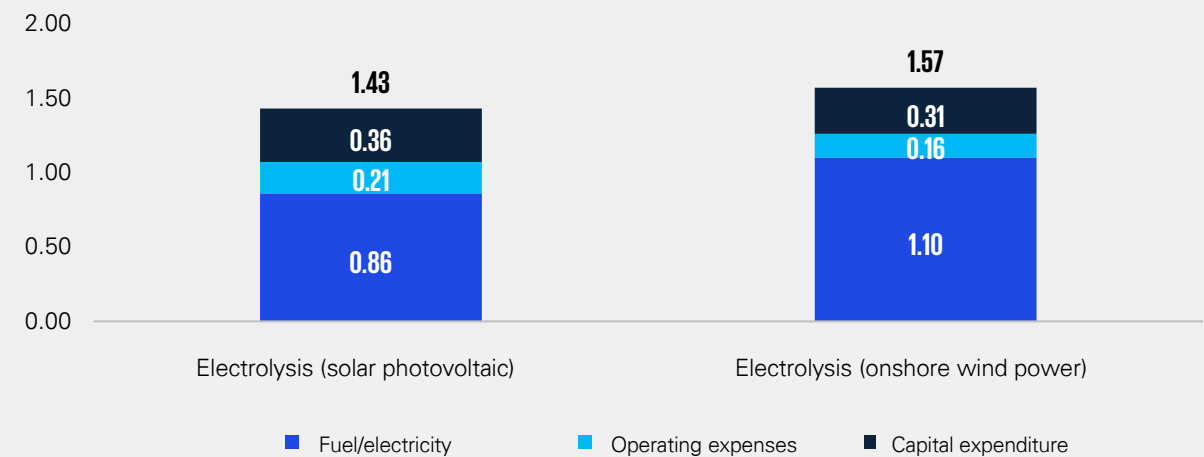
<sup>2</sup> Global Solar Atlas, <https://globalsolaratlas.info/map>

The MENA region is sparsely populated but has strong potential in respect of solar and wind energy resources as well as geographical advantages, making it suitable for the large-scale development of concentrated photovoltaic and wind power projects. The development of photovoltaic and wind power is expected to gradually lead to opportunities in both the horizontal and vertical expansion of the industrial chain, with significant potential for the development of the energy storage and hydrogen industries as well.

In terms of energy storage, the demand for large-scale storage construction will mainly be driven by renewable energy paired storage, as exemplified by the energy storage project currently under construction in NEOM, Saudi Arabia's Red Sea city, which plans to provide 100% renewable energy to hotels, airports, and other infrastructure facilities through a multi-energy model that involves wind, solar, and storage. The capacity of the energy storage facility project will amount to 1,000 megawatt-hours; and upon completion, it is expected to be able to operate completely off-grid, supplying green energy in an uninterrupted manner for 24 hours a day, 365 days a year<sup>3</sup>. On the user side, the demand for energy storage is concentrated in regions such as Lebanon, Yemen, Syria, and Iraq, where it is needed to ensure energy security in areas with relatively weak power grids. Direct power supply requirements generally range from 1 to 4 hours or 1 to 8 hours, while backup power needs are typically less than 1 hour<sup>4</sup>.

In terms of hydrogen energy, the MENA region has low levelised cost of electricity, which is conducive to achieving low-cost hydrogen production from renewable energy. According to estimates by Shanghai Metals Market (SMM), the cost of hydrogen production in the MENA region is expected to fall to USD 1.40-USD 1.60 per kilogram by 2030 (Figure 6)<sup>5</sup>. Additionally, the Middle East also has a clear cost advantage in green hydrogen transportation and is expected to export hydrogen to growing import markets such as the European Union.

Figure 6 | Expected cost of hydrogen production in the MENA region by 2030 (USD/kg)



Data source: SMM, KPMG analysis

<sup>3</sup> Saudi Arabia's new Red Sea city is building the world's largest energy storage project - China Energy Storage Network

<sup>4</sup> Analysis of Energy Storage Development in North Africa and the Middle East - China Energy Storage Network

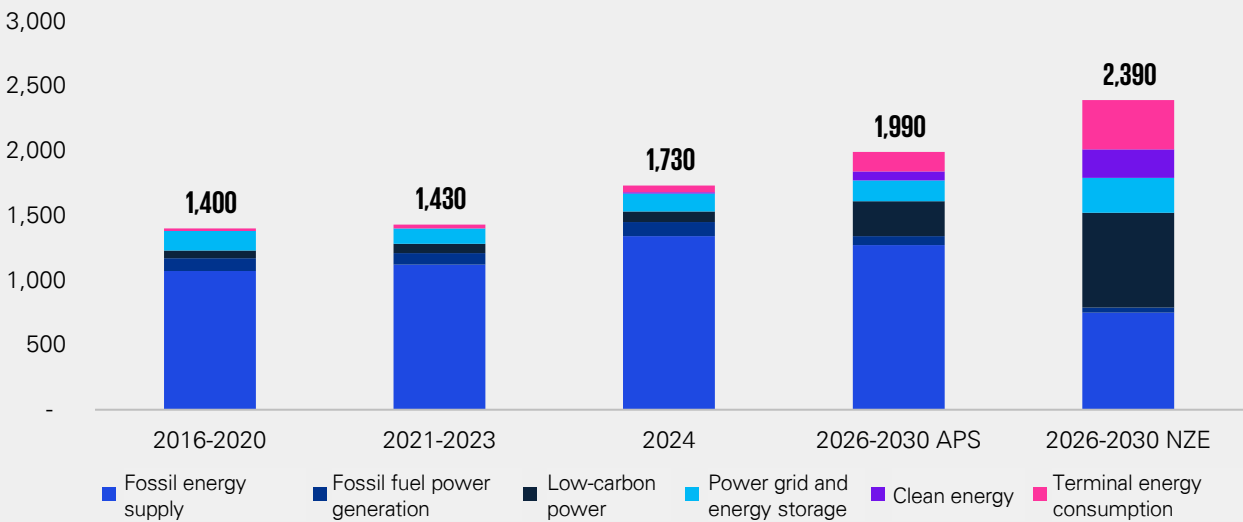
<sup>5</sup> SMM: Analysis of China's PV-Hydrogen Market - Opportunities in the Middle East for Synergistic Development of Hydrogen and CCUS [Hydrogen & Battery Conference] - Nonferrous Metals Information - Shanghai Nonferrous Metals Network



1.2.2. The scale of energy investment is substantial, and wind, solar, hydrogen, and storage will be key sectors.

Both real demand for the energy transition in the MENA region and the blueprint for developing green industries by leveraging advantageous resources are expected to drive related investment in the region. According to IEA estimates, energy investment in the Middle East was projected to reach USD 173 billion in 2024, with new energy-related investment accounting for about 13%, mainly including low-carbon power and clean energy. Moreover, by 2030, this share is expected to increase to 25% in the APS (Announced Pledges Scenario) and reach 51% in the NZE (Net Zero Emissions by 2050 Scenario) (Figure 7).

Figure 7 | Energy investment forecast in the Middle East (in USD 100 millions)



Data source: IEA, KPMG analysis



For example, according to the Saudi Arabia Investment Opportunities Report released by the Ministry of Investment for Saudi Arabia (MISA), the energy sector plays a significant role in priority projects under Vision 2030. Total investment in renewable energy projects is expected to reach USD 17 billion by 2030. In addition, total investment in clean energy initiative projects exceeds USD 1 billion, and expected investment amounts for projects such as LED lighting systems, sectional circuit breakers, energy efficiency service companies, and energy audit companies range from USD 0.5 million to USD 15 million.

**Table 3 Investment opportunities in Saudi Arabia's energy sector**

Projects	Total value	Project introduction
Renewable energy projects	USD 17 billion	A solar power station with an annual production capacity of 14 gigawatts is expected to be completed between 2021 and 2030.
		A wind power station with an annual production capacity of 6 megawatts (MW) is expected to be completed between 2021 and 2030.
		A concentrated solar power plant with an annual production capacity of 300 MW is expected to be completed between 2021 and 2030.
Clean energy initiatives	More than USD 1 billion	From 2021 to 2030, collaboration on the transformation of the energy sector using innovative technologies, and cooperation on clean hydrogen energy projects, will be promoted.
LED lighting systems	USD 8 million	Local manufacturing and assembly in Saudi Arabia, including lighting products such as LED lamps.
Circuit breaker sections	USD 5 to 15 million	Manufacturing and assembly of 100 amp sectional switches (15.2KV, 36KV) in Saudi Arabia.
Energy service company (ESCO)	USD 2 million	Establish an energy service company (ESCO) to help state-owned and private entities reduce energy consumption, which presents a market size of USD 300 million.
Energy audit company	USD 550,000	Establish an energy audit company to help both state-owned and private entities reduce energy consumption.
Industrial energy audit company	USD 550,000	Establish an industrial energy audit company to help industrial entities reduce energy consumption.

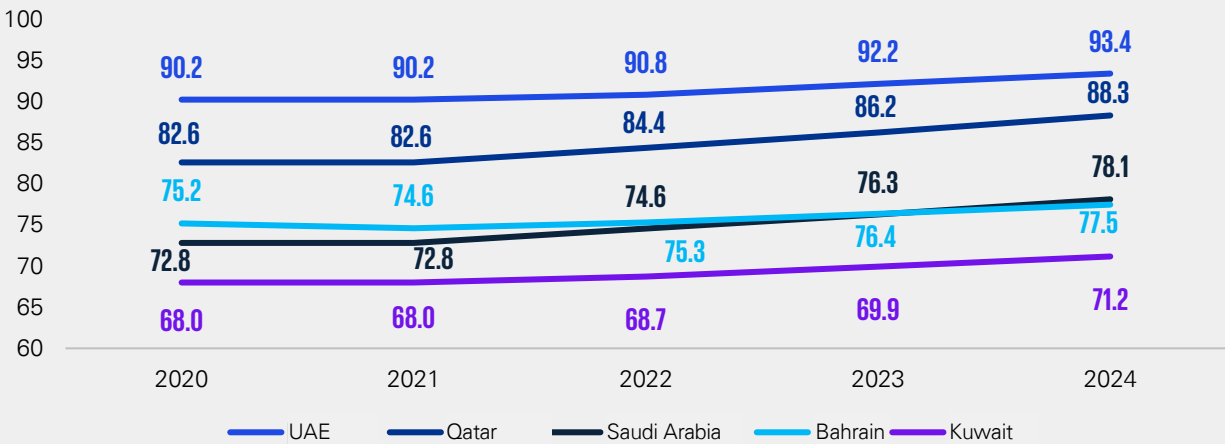
Source: MISA, KPMG analysis

1.2.3. The business environment in some Gulf countries continues to improve, with more favourable tax policies in the UAE

A relatively stable and orderly political and economic environment is a necessary prerequisite for countries to advance energy transition investments and promote international energy cooperation. However, the MENA countries have different national conditions and economic development statuses, with some countries still facing severe political instability or economic crises. Overall, Arab countries<sup>6</sup> have gradually established a consensus on collaborative development, but judgments about the business environment in the MENA region cannot be generalised.

Based on business environment scores from The Economist Intelligence Unit (EIU), the overall business environment scores in Gulf countries such as the UAE and Qatar have improved over the past five years (Figure 8).

Figure 8 | Business environment scores for certain Gulf countries<sup>7</sup>



Data source: EIU, KPMG analysis









<sup>6</sup> Generally refers to countries mainly composed of Arab ethnic groups; countries such as Iran, Israel, Malta, and Djibouti in the MENA region are generally not considered Arab countries

<sup>7</sup> Based on the sum of the EIU’s scores for the 12 subcategories of the business environment (on a scale from 1 to 10)



The UAE posted a significantly higher overall score compared to other countries, particularly in terms of its tax system, which scored above 9 out of 10 over the past five years. The UAE's tax system has several key features: no personal income tax, low corporate tax rates, a value-added tax (VAT) system, and open tariff and import tax policies, all of which help ensure that investors can efficiently engage in investment activities with low tax burdens (Table 4).

**Table 4 Analysis of the UAE's tax system**

Detailed tax system	Characteristics
<b>Corporate income tax</b> 	The tax rate is divided into two tiers: companies in free zones that meet relevant criteria are subject to a 0% tax rate for annual taxable income below AED 375,000 (approximately USD 100,000), and a 9% tax rate applies to taxable income above AED 375,000.
<b>Personal income tax</b> 	No personal income tax is levied.
<b>Value-added Tax</b> 	Since 2018, the UAE has levied a 5% value-added tax that applies to most goods and services, but essential items such as basic foodstuffs, education, and healthcare are exempt from VAT. There are also 24 free zones that are exempt from VAT.
<b>Consumption tax</b> 	A consumption tax was introduced in 2017, targeting specific goods.
<b>Property tax on municipal properties</b> 	The tax rate for residential property is 5%, and the tax rate for commercial property ranges from 5% to 10%.
<b>Double taxation agreements</b> 	To avoid double taxation on overseas investments, the UAE has signed double taxation avoidance agreements with multiple countries, including China.

Source: Arab-China Institute for Economics and Policy, KPMG analysis

### Case: KPMG UAE assisted a solar technology company in fulfilling its tax compliance obligations

A globally renowned and highly innovative solar technology company from China has been operating in the UAE for many years. The company it has set up in a free zone in the UAE is an important trading company within the group. Engaged in the distribution of goods, and it also holds subsidiaries located in different countries across the Middle East region. KPMG UAE has consistently assisted the company in complying with the *Economic Substance Regulations*.

In the second half of 2023, the UAE Ministry of Finance changed the method for logging into the *Economic Substance Regulations* accounts. Since the company's server was unable to receive email verification codes from the Ministry, it was no longer possible to complete the declaration using the existing account. To avoid fines for failing to meet the deadline, KPMG UAE provided a solution for this unexpected situation, assisting the client in completing the declaration by registering a new account and contacting the Ministry to transfer historical data from the old account to the new one. Ultimately, the client completed the declaration and the transfer of historical data before the deadline, avoiding tax compliance risks.

Based on its customer-centric approach, KPMG's tax compliance team is committed to assisting enterprises in solving difficult problems and preventing tax compliance risks.

Qatar has been an early mover in terms of relaxing the share ratio restrictions on foreign enterprises' investments. In 2019, the *Law on Non-Qatari Capital Investment in Economic Activities* (the New Foreign Investment Law) was revised to allow foreign investors to transfer their company shares to any investor, thus abolishing the requirement that foreign investors in Qatar should have Qatari partners and that their shares should not be less than 51% of the project capital. In addition, the Qatari government says it is paying more attention to protecting the rights and interests of foreign workers. In 2015, the Qatari government issued Decree 2015 (1), which introduced the Wage Protection System (WPS). The decree requires all companies operating in Qatar to open a wage account at a designated financial institution for the workers they employ, and regularly transfer wages to the labour account through the WPS system. The Qatari government monitors the payment of wages through the WPS system in real time<sup>8</sup>.

In terms of new energy market policies, the terms of power purchase agreements (PPAs) and land policies have created an appealing market environment for new energy projects. At the level of power purchasers, the credit ratings of power purchasers in most MENA countries are equal to the sovereign credit rating of the country, which is conducive to improving the feasibility and financeability of projects. At the PPA level, generally, the signing period of agreements is long, and the overall design of the terms is reasonable, which is conducive to the early realisation of grid-connected power generation for projects. Finally, at the land policy level, the area is sparsely populated, and supporting policy arrangements have been put in place, effectively reducing land use costs.

It is worth noting that countries in the MENA region generally implement energy subsidy policies, which means that the profits of a large number of renewable energy power generation projects mainly rely on government financial assistance rather than market-oriented pricing. Moreover, due to public dissatisfaction, energy subsidies in various countries are being reduced at a relatively slow pace. This means that the profit and loss levels of foreign investors investing in new energy projects in the Middle East in the future may largely depend on the ability of local governments to pay subsidies, so Chinese new energy enterprises should pay attention to this issue.



<sup>8</sup> Qatar (mofcom.gov.cn), <https://www.mofcom.gov.cn/dl/gbdqzn/upload/kataer.pdf>

## 1.3 The driving force for Chinese new energy enterprises to go global in the Middle East

### 1.3.1. China and Arab countries continue to strengthen investment cooperation mechanisms, with energy cooperation holding a significant position.

For a long time, China and Arab countries have been actively promoting bilateral investment cooperation, and they have established relatively comprehensive cooperation mechanisms. In January 2016, the Chinese government issued China's Policy Paper on Arab Countries, which outlined a roadmap for cooperation with Arab countries in five major areas: politics, economy and trade, social development, cultural exchange, and peace and security. By the end of 2023, China had signed bilateral investment agreements with 15 Arab countries, and avoidance of double taxation agreements with 12 Arab countries<sup>10</sup>.

China and Arab countries have gradually established a "1+2+3" cooperation framework<sup>11</sup>, where "1" represents energy cooperation, which holds a central position, with a focus on new energy cooperation. In this regard, both sides complement each other's needs, and there is ample room for expanding cooperation.

Specifically, Chinese companies are not only actively involved in the development of the full industrial chain for oil and gas in Arab countries—they also undertake photovoltaic, wind power, and other power generation projects locally, while leveraging their technological advantages to help optimise grid operations. For example, the 500 kV transmission line project for Egypt's national power grid was constructed by State Grid Corporation of China (SGCC) Egypt Branch. The construction included 15 sections of 500 kV co-pole double-circuit AC lines, totaling approximately 1,210 kilometers. This is the largest-scale, highest-voltage, and most extensive transmission line project in Egypt<sup>12</sup>. Construction of the project officially commenced in January 2016, and it has since been completed and delivered. The project played a significant role in enhancing the safety and operational capacity of Egypt's power grid, promoting local economic development, and the rational use of electric energy. As cooperation between China and Arab countries continues to grow in the field of power engineering construction, cooperation is expected to expand into new energy areas such as solar energy, wind energy, nuclear power, and hydrogen energy, becoming an important means for China and Arab countries to address climate change.

### 1.3.2. Chinese companies accelerate their efforts to tap into global markets, adopting a diversified layout to mitigate risks.

With the continuous upgrading and improvement of the industrial chain, Chinese new energy companies are no longer relying solely on cost advantages to compete with international competitors, but have accumulated advantages such as advanced technology, massive funds, outstanding talent, and mature business models.

In photovoltaics, China has the most complete manufacturing industrial chain globally, and its technology is highly autonomous and controllable. In wind power, Chinese wind turbine units are continuously improving and trending towards a larger scale, customisation, and intelligence while the country leads in multiple fields, including megawatt-level wind power systems. In energy storage, Chinese enterprises are steadily making breakthroughs in the energy conversion efficiency of N-type batteries and P-type batteries, and their new energy vehicle power batteries rank among the highest globally in terms of battery energy density, lifespan, and safety.

However, it is worth noting that competition between industries, regions, countries, and enterprises has also intensified, with the gap between strong and weak mid-to-large sized companies becoming increasingly pronounced. This trend, coupled with the fact that domestic market demand is approaching saturation, is promoting some leading companies to accelerate their expansion into overseas markets. For example, based on existing manufacturing capacity in the photovoltaic industry, according to IEA estimates, China's share of global polysilicon, ingot, and wafer production is expected to reach nearly 95% by 2025<sup>13</sup>.

<sup>9</sup> Bilateral Investment Treaty List (mofcom.gov.cn), [https://tfs.mofcom.gov.cn/gjk/art/2011/art\\_20513f4a33d64e528279070a25d63050.html](https://tfs.mofcom.gov.cn/gjk/art/2011/art_20513f4a33d64e528279070a25d63050.html)

<sup>10</sup> Tax Treaty - State Taxation Administration of China (chinatax.gov.cn), <https://www.chinatax.gov.cn/chinatax/n810341/n810770/c5171677/content.html>

<sup>11</sup> In June 2014, Chinese President Xi Jinping proposed at the sixth ministerial meeting of the China-Arab States Cooperation Forum to build a "1+2+3" cooperation framework between China and Arab countries, with energy cooperation as the main axis, infrastructure construction and facilitation of trade and investment as the two wings, and nuclear energy, space satellites, and new energy as the three high-tech breakthrough areas, fully reflecting the complementary advantages of both sides

<sup>12</sup> People's Daily: Introducing Chinese power transmission technology to upgrade Egypt's aging grid - State-owned Assets Supervision and Administration Commission (sasac.gov.cn), <http://www.sasac.gov.cn/n2588025/n2588139/c10359332/content.html>

<sup>13</sup> Executive summary – Solar PV Global Supply Chains – Analysis – IEA, <https://www.iea.org/reports/solar-pv-global-supply-chains/executive-summary>



During their overseas expansion, Chinese enterprises face uncertainties such as global competition and trade barriers, and diversifying their layout has become necessary to disperse risks. For example, Chinese new energy companies have avoided the high tariffs on photovoltaic products in Europe and America by using Southeast Asian countries as "transit stations," deploying production capacity in these countries and then exporting finished products to European and American markets. However, with changes in the external environment, such as the US initiating "anti-dumping and countervailing duty investigations" against photovoltaic products from four Southeast Asian countries and the European Union passing the *Net-Zero Industry Act* to increase support for domestic manufacturing, Chinese enterprises urgently need to optimise resource allocation and the layout of their production capacity on a larger scale, reduce dependence on "external sources," and enhance risk control.

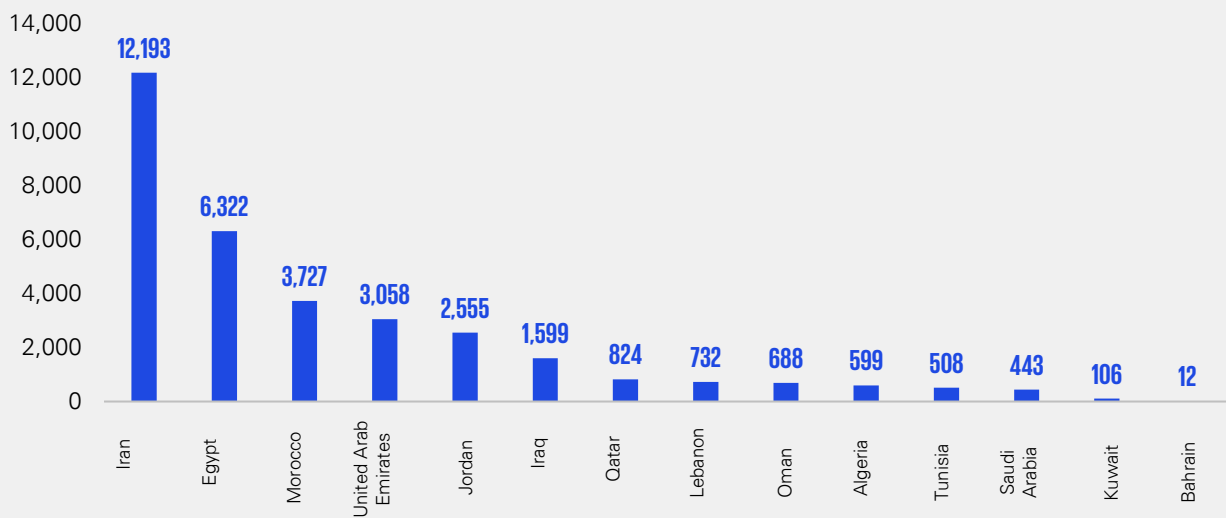
**1.3.3. Targeting the favorable market environment and strong potential demand in the Middle East, Chinese companies are poised to gain a first-mover advantage.**

For Chinese new energy enterprises that are going abroad or intending to go global, markets in Europe, the US and other regions have well-established operating mechanisms, and the path for entering those markets is relatively mature. However, the growth rate of local demand has tended to be flat, and they often present risks in terms of local trade protection policies. On the other hand, Southeast Asia and China are near each other geographically and closely linked culturally and historically, which makes it easier for Chinese companies to quickly understand and adapt to the local market. However, most countries in the region have a low level of economic development, so products and services need to be priced low and have high cost-performance to meet their needs.

In comparison, the wealthy class and large enterprises in the MENA region have a strong ability to pay, and they are willing to cooperate with state-owned enterprises in areas such as infrastructure construction and smart city development, which will help Chinese companies going abroad secure relatively stable revenue. Additionally, compared to long-term and high-investment infrastructure projects, renewable energy generation projects have advantages such as shorter cycles and clear profit models, allowing Chinese companies going abroad to quickly capture relevant market opportunities by leveraging their technological advantages and commercial experience.

In the future, market demand in the region is expected to continue to rise, and Chinese companies will accelerate the pace at which they are venturing to the Middle East, seizing first-mover advantage. According to statistics from MEED, in 2023, cumulative installed capacity of renewable energy in the MENA region exceeded 33 GW (see Figure 9).

**Figure 9 | Cumulative installed capacity of renewable energy (megawatts) in a selection of MENA countries in 2023**



Data source: MEED, KPMG analysis



## 02

# Analysis of the Current Situation of Chinese New Energy Enterprises Going Abroad in the Middle East



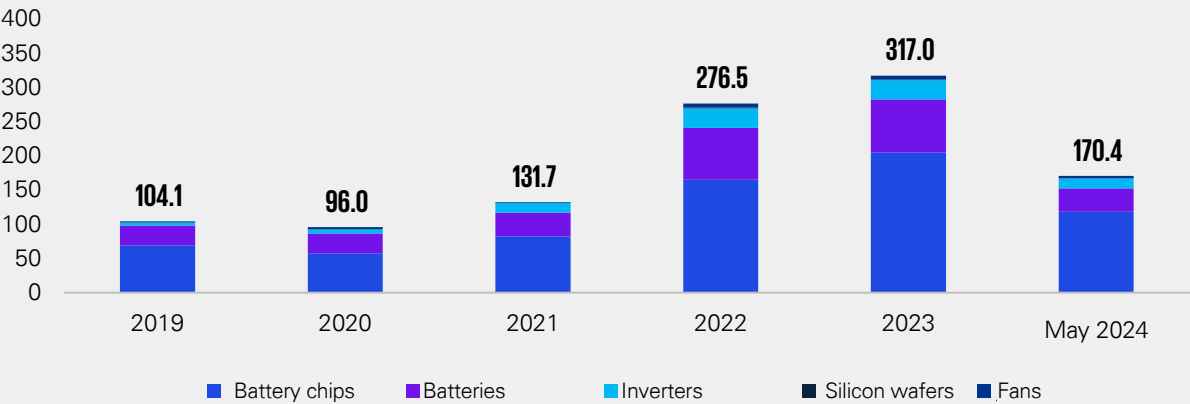
2.1

Overview: Exports of major products are on the rise, and in investments in the Middle East, new energy accounts for nearly 20%

In recent years, the MENA region has become a new area of focus in the overseas strategies of China's new energy enterprises, with the main outbound approaches including export trade and investment cooperation.

From the perspective of export trade, exports of various new energy products such as solar cells, batteries, and inverters from China to the region have increased from RMB 10.41 billion in 2019 to RMB 31.70 billion in 2023. Based on the figures recorded for the first five months of 2024, exports are expected to continue to reach new highs (see Figure 10).

Figure 10 | New energy product exports from China to the MENA region (in RMB 100 million) from 2019 to May 2024



Data source: General Administration of Customs of China, KPMG analysis

From the perspective of investment cooperation, China's total investment in the MENA region from 2019 to 2023 stood at USD 70.22 billion, with energy being the most popular sector, accounting for a cumulative investment of USD 39.6 billion or 56% of total investment (Figure 11).

Figure 11 | Distribution of China's investment in the MENA region from 2019 to 2023

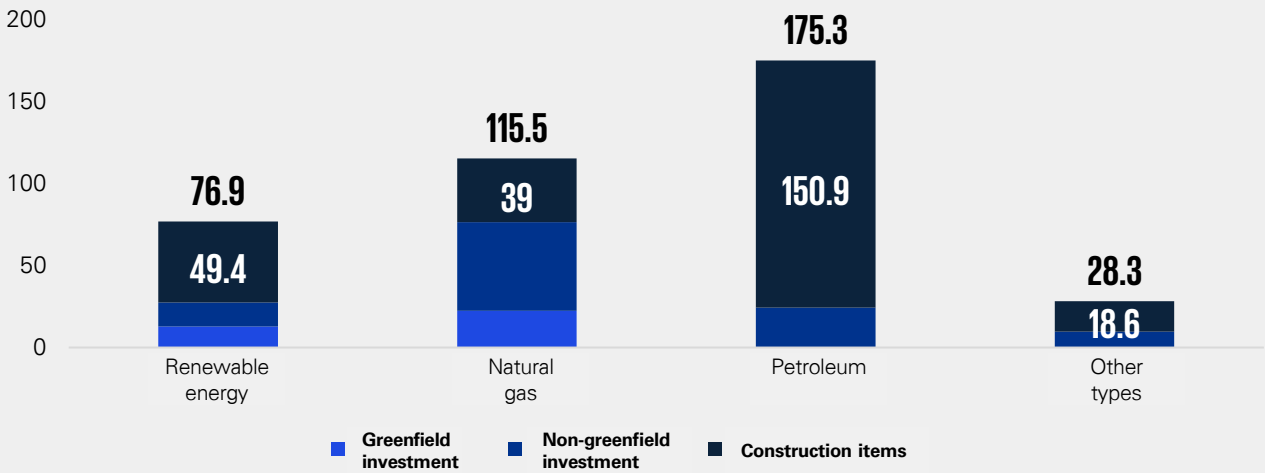


Data source: American Enterprise Institute, Heritage Foundation, KPMG analysis



In terms of the different types of energy investment, although cumulative investment in renewable energy is less than that in oil and natural gas, it has reached USD 7.69 billion, accounting for 19.6% of total investment in the energy sector, and it mainly takes the form of construction project cooperation (see Figure 12).

**Figure 12 | China's investment in the energy sector in the Middle East from 2019 to 2023 (in USD 100 millions)**



Data source: The American Enterprise Institute and The Heritage Foundation, KPMG analysis

As the MENA region continues to open up, China's cooperation with the Middle East in the new energy sector is likely to shift from forms such as engineering contracting to direct investment. New areas of cooperation would include investing in the manufacture of new energy equipment locally, participating in new energy power generation, energy storage, and the operation of clean energy projects.



## 2.2

**Photovoltaics: Models are more mature, taking diversified forms such as project investment and factory investment****2.2.1. In the early stages, most projects were undertaken in the form of engineering project contracting, but enterprises faced pressure from low-price competition.**

In the photovoltaic sector, Chinese enterprises initially entered the MENA market by participating in construction projects for facilities such as power plants, using the "EPC + F"<sup>14</sup> and "integrated investment, construction, and operation"<sup>15</sup> models to participate in market bidding. To ensure that projects generate the expected returns, investors pay close attention to projects' financeability and transaction structure arrangements. In recent years, numerous domestic and international financial institutions have provided adequate funding support for projects along the Belt and Road, which has alleviated financing pressure for some contractors (Table 5).

**Table 5 Recent cases of Chinese companies undertaking PV power station projects in the MENA region (incomplete statistics)**

Project name	Destination country	Signing date	Developer	EPC contractor	Power purchase agreement (PPA)	Financial institutions
Tabarjal 400MW photovoltaic power generation project	Saudi Arabia	2023	Jinko Technology joint venture (Jinko Energy (Hong Kong) Limited, Sun Glare Holding Co. Ltd., Sunlight Energy Holding Co. Ltd.)	Information unavailable	Signed a 25-year agreement with the Saudi Power Procurement Company (SPPC)	Information unavailable
Manah II 500MW standalone solar power project	Oman	2023	Sembcorp Jinko Shine SAOC (a joint venture between Sembcorp Utilities Pte Ltd. and Jinko Power Technology Co., Ltd.)	China Energy Engineering Group Shanxi Electric Power Engineering Co., Ltd.	Signed a 20-year agreement with Nama Power and Water Procurement (Nama PWP) company	Information unavailable
EPC + operation and maintenance project for the 500MW photovoltaic power station in Kom Ombo, Egypt	Egypt	2022	Abdous Solar Power Company (a subsidiary of AMEA POWER)	Consortium consisting of China Energy Engineering Corporation Zhejiang Electric Power Construction Co., Ltd., China Energy Engineering Corporation, and China Energy Engineering International Construction Group Co., Ltd.	An electricity purchase agreement was signed with the Egyptian Electricity Transmission Company (EETC), and a 25-year agreement was signed with the New and Renewable Energy Authority (NREA)	Included the European Bank for Reconstruction and Development (EBRD), the OPEC International Development Fund (OPEC Fund), the African Development Bank (AFDB), the Green Climate Fund (GCF), and others
800MW photovoltaic power generation project in Qatar	Qatar	Multiple contracts, mainly in 2020-2022	Siraj 1 (a joint venture between Total, Siraj Energy <sup>16</sup> , and Marubeni Corporation)	PowerChina Guizhou Engineering Co., Ltd.	Qatar Electricity and Water Company (Kahramaa) signed a 25-year agreement with Siraj 1	Japan Bank for International Cooperation (JBIC) and Mizuho Bank, Japan
Al Dhafra solar photovoltaic project	United Arab Emirates	2020	Abu Dhabi Future Energy Company (Masdar), Abu Dhabi National Energy Company (TAQA), EDF Renewables (Electricité de France Renewables), Jinko Energy Corporation	China Mechanical and Electrical Engineering Corporation (CMEC) (with involvement from China Energy Engineering Hunan Thermal Power Construction)	30-year power purchase agreement, with the initial electricity price at 1.35 cents per kilowatt-hour, later reduced to 1.32 cents per kilowatt-hour	Included BNP Paribas, Bank of China, Crédit Agricole, HSBC
950 MW photovoltaic and solar thermal hybrid power station project in Dubai	United Arab Emirates	2018	The Dubai Electricity and Water Authority (DEWA), Saudi Electricity Company (SEC), and China Silk Road Fund, among others, jointly invested	ACWA and Shanghai Electric serve as EPC contractors	DEWA and ACWA signed an agreement	Included China Agricultural Bank, Bank of China, China Everbright Bank, China Minsheng Bank, Dubai Commercial Bank, Dubai International Bank, and others

Source: Public data, KPMG analysis

<sup>14</sup> "EPC + F" is a project management model for engineering projects, where EPC stands for engineering, procurement, and construction, and F stands for financing. In an "EPC + F" engineering general contracting project, the general contractor is entrusted by the owner to manage the entire process or certain stages of the project, including surveying, design, procurement, construction, and trial operation (completion acceptance), while also handling the project's financing

<sup>15</sup> The main transaction documents for foreign independent power project investment are PPAs, and the main transaction documents for engineering construction are EPC contracts

<sup>16</sup> Siraj Energy is a joint venture between the Qatar Electricity and Water Company (60%) and Qatar Petroleum Company (40%)

However, as the new energy market in the MENA region matures and technological progress reduces costs, the bidding prices for independent power producer (IPP) projects are generally trending downward, putting continuous pressure on the profit margins of Chinese contractors (Table 6). There are three main factors driving this trend. First, under the IPP model, developers hold market dominance, pricing power, and rule-making authority, often leaving contractors at a disadvantage in negotiations due to their sole role as EPC providers. Second, the preference for European and American standards among Middle Eastern owners brings additional cost pressures. And third, the return rate requirements of financial institutions raise the risks and burden on contractors.

**Table 6** Bids for electricity prices in various phases of the Mohammed bin Rashid Al Maktoum Solar Park project

	Installed capacity	Developer	Contractor	Investment amount (AED 100 millions)	Commission date	Bidding price (cents per kilowatt hour)
Phase One	13MW	SCE	-	1.24	22 October 2013	-
Phase Two	200MW	Shuaa Energy 1	TSK	12	20 March 2017	5.6
Phase Three	800MW	Shuaa Energy 2	Acciona Industrial joint venture	34.7	2020	2.99
Phase Four	700MW solar thermal + 250MW photovoltaic	Noor Energy 1	Shanghai Electric	157.8	-	7.3 (thermal energy) 2.4 (photovoltaic)
Phase Five	900MW (Phase A)	Shuaa Energy 3	Shanghai Electric	-	24 July 2021	1.6953
Phase Six	1800MW	Dubai Electricity and Water Authority (DEWA)	Masdar	55	2024 Q4 (estimated)	1.62154

Source: Public data, KPMG analysis

Notably, since 2023, photovoltaic power prices in the Middle East have gradually risen, with the price range adjusting to 1.41-1.70 cents per kilowatt-hour. For example, in the bidding for the fourth round of Saudi Arabia's National Renewable Energy Program (NREP), Jinko Solar secured the project development rights at a price of 1.70 cents per kilowatt-hour.

Overall, Chinese enterprises face severe pressure from low-price competition when building photovoltaic projects locally. Against this backdrop, while steadily pursuing cost control, they are also enhancing their comprehensive planning and design consulting capabilities at the front end, and more frequently adopting models such as "investment-construction-operation" and public-private partnerships to participate in the comprehensive development and operation of projects. When seeking project opportunities, many companies choose to participate through equity investments and joint development to compensate for their lack of local project experience.

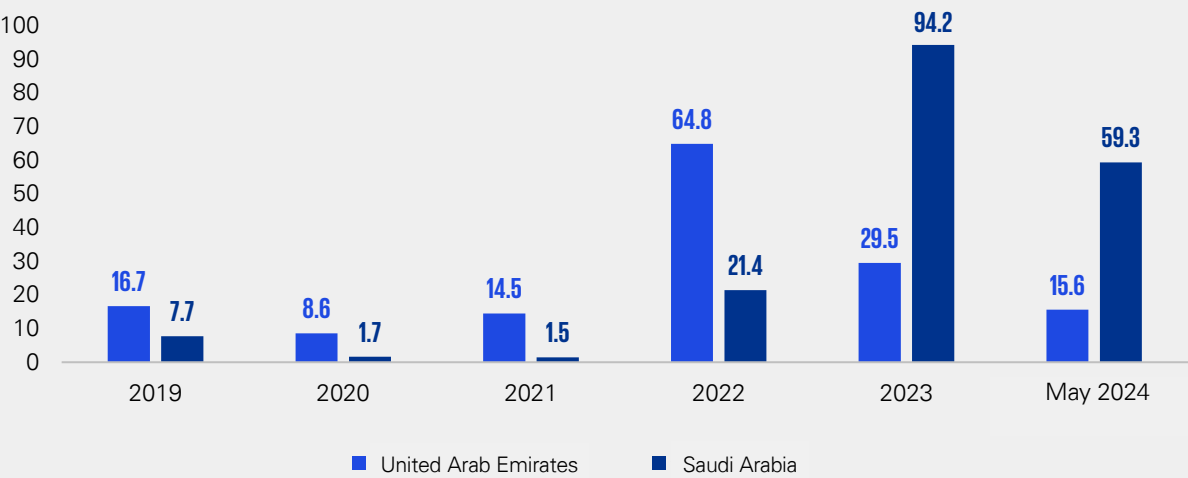


2.2.2. Exports of photovoltaic modules and other products have seen significant growth, and the integrated photovoltaic and energy storage industry chain has accelerated its overseas expansion.

Chinese exports of photovoltaic components to the MENA region have been increasing year-over-year, with particularly significant growth in the UAE and Saudi Arabia markets. For example, in respect of solar cells, the average annual growth rate of Chinese exports was 15.3% in the UAE and 87.0% in Saudi Arabia from 2019 to 2023. Based on data for the first half of 2024, Saudi Arabia has become China's fifth largest market for photovoltaic exports (Figure 13).

This trend is in part driven by Saudi Arabia's strong investment in renewable energy projects under the guidance of Vision 2030, and also due to the deepening cooperation between the two countries in areas such as energy after the signing of the comprehensive strategic partnership agreement between China and Saudi Arabia in December 2022.

Figure 13 | Solar cells exported from China to the UAE and Saudi Arabia (RMB 100 millions) 2019-May 2024



Data source: General Administration of Customs of China, KPMG analysis



Some Middle Eastern countries have relatively friendly policies towards Chinese enterprises building factories locally. In order to seize the local market in a timely manner, since 2023, China's photovoltaic production capacity has been venturing overseas at an accelerated pace, with a focus on polysilicon, silicon wafers, solar cells, modules, and racking (Table 7).

In contrast to when they set up factories in Southeast Asia and other regions, Chinese photovoltaic companies operating in the Middle East tend to adopt a joint venture model, which fully leverages the advantages of both parties, reduces risks through collective decision-making, delivers shared benefits, improves management efficiency, and enhances the quality of decision-making. In July 2024, announcements from Jinko Solar, Hainan Mining, and TCL Zhonghuan indicated that they would establish joint ventures to build relevant capacity projects. In the Sino-Arab joint venture model, sovereign funds in the Middle East often play a key role as major investors. For example, according to data from the Sovereign Wealth Fund Institute (SWFI), the Public Investment Fund (PIF) of Saudi Arabia is currently the sixth largest sovereign wealth fund globally, with total assets under management reaching USD 925 billion<sup>17</sup>.

**Table 7** Recent developments in Chinese enterprises' efforts to invest and build photovoltaic capacity projects in the MENA region (non-exhaustive statistics)

Company	Announcement date	Project	Investment amount (in RMB)	Links in the industrial chain
Jinko Energy	Jul-24	Jinko Energy, the Public Investment Fund (PIF) of Saudi Arabia, and the Saudi energy equipment company Vision Industries jointly announced that they would establish a joint venture in Saudi Arabia to build a 10GW high-efficiency battery and module project	71.59	Batteries and components
Hainan Mining	Jul-24	Joint venture with Ajilang Mining to build a lithium salt plant	Not yet announced	Lithium salt plant
TCL Zhonghuan (TZE)	Jul-24	Joint venture with PIF subsidiary RELC and Vision Industries to invest in the construction of a photovoltaic crystal wafer factory with an annual production capacity of 20 GW in Saudi Arabia	151.18	Photovoltaic crystal wafers
HainanDrinda New Energy	Jun-24	The JETTEC (Oman) Photovoltaic Cell Project plans to invest in a Topcon photovoltaic cell manufacturing plant with a capacity of 10 GW in Oman	50.87	Photovoltaic cells
GCL TECH	Jun-24	The UAE's integrated silicon ecosystem is expected to become the largest overseas base for granular silicon production	Not yet announced	Silicon production
ARCTECH	Apr-24	Photovoltaic mounting factory in Jeddah with an integrated capacity of 3 GW	Not yet announced	Photovoltaic mounting structure
UnitedSolar	Mar-24	Polysilicon plant project in the Sohar Port and Freezone in Oman with an annual capacity of 100,000 tons	98.17	Polysilicon
TrinaSolar	Oct-23	Project in the UAE with an annual capacity of approximately 50,000 tons of high-purity silicon material, 30 GW of crystals and wafers, and 5 GW of cell modules	Not yet announced	Battery components

Source: public data, KPMG analysis

<sup>17</sup> Top 100 Largest Sovereign Wealth Fund Rankings by Total Assets - SWFI (swfinstitute.org), <https://www.swfinstitute.org/fund-rankings/sovereign-wealth-fund>

In addition, some companies (such as Hainan Drinda New Energy Technology Co.,Ltd.) are also accelerating the expansion of their photovoltaic cell capacity. These developments are driven by the fact that China's photovoltaic industry has formed an integrated industrial chain—spanning raw material supply, equipment manufacturing, system integration, and operation and maintenance services. As a result, the sector is transitioning from global marketing to global manufacturing, and even global investment.

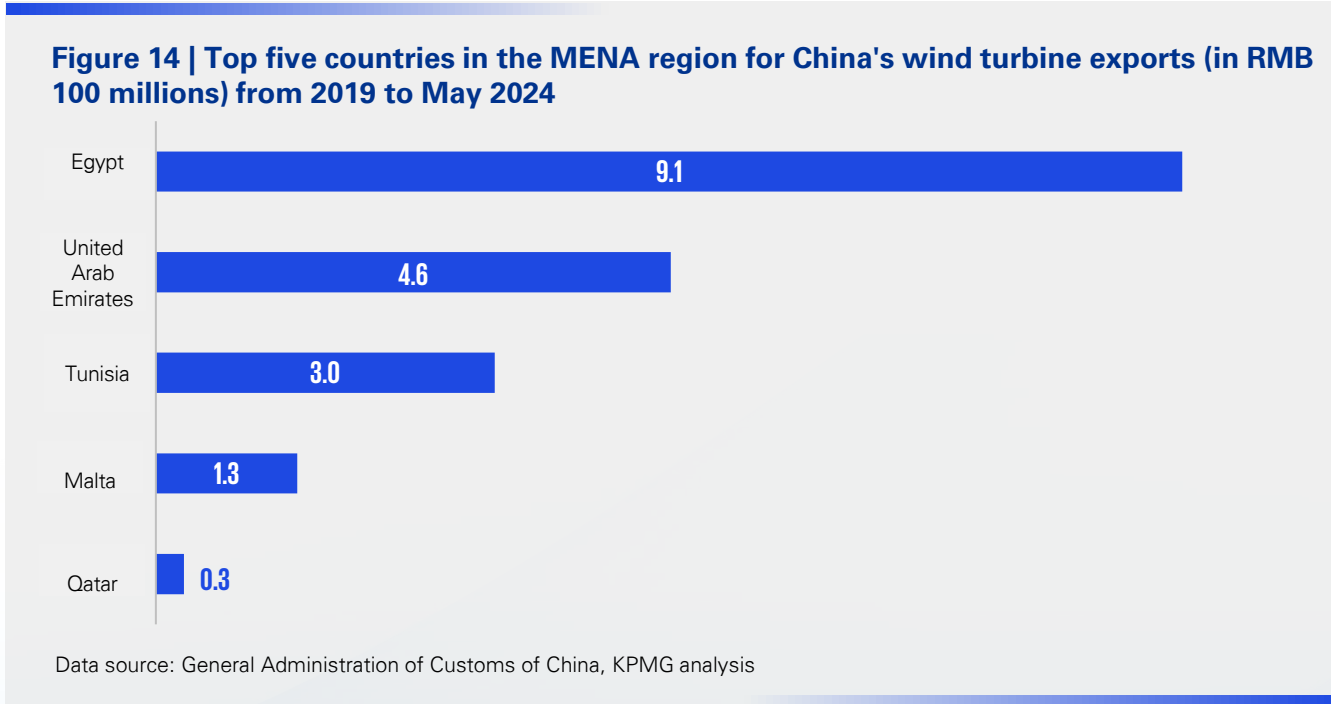
The substantial financial strength and abundant resources in the MENA region can provide adequate funding guarantees and resource support for large-scale investment projects, potentially continuing to attract Chinese photovoltaic companies to enter the market. However, Chinese companies still face numerous challenges in building a new industrial chain system locally, including construction difficulties presented by special climatic conditions in desert areas, the establishment of local raw material supply channels and related quality control, and issues with on-site capacity consumption.

2.3

Wind power: With a focus on wind turbine exports, this sub-sector is expected to enter a period of rapid growth in demand

Currently, China's wind power industry mainly exports wind turbines to the Middle East. Projects are typically represented by EPC contracts undertaken by two major energy construction groups—China Power Construction Corporation and China Energy Engineering Corporation—or the "Five Major and Six Minor" power generation groups. Chinese wind power companies provide equipment such as wind turbines for these projects. For example, in the 500 MW Suez Bay Wind Power Project in Egypt, which was constructed by China Power Construction Corporation, the Envision EN171-6.5 MW model was used<sup>18</sup>. Meanwhile, in the first wind power project in the UAE, which was built by a Chinese company, China Power Construction Corporation served as the general contractor, and Goldwind provided the wind turbines<sup>19</sup>.

Over the past five years, China's cumulative wind turbine exports to the MENA region have reached RMB 1.83 billion, with cumulative exports to Egypt amounting to RMB 910 million, accounting for nearly half of exports (Figure 14). Additionally, since 2023, Egypt has become China's fourth largest global market for wind turbine exports after Australia, Vietnam, and Chile.



<sup>18</sup> The first batch of wind turbines for China Power Construction Corporation's 500 MW Suez Bay Wind Power Project in Egypt has been shipped as part of the company's international projects (powerchina.cn), [https://www.powerchina.cn/art/2023/10/18/art\\_7449\\_1805000.html](https://www.powerchina.cn/art/2023/10/18/art_7449_1805000.html)

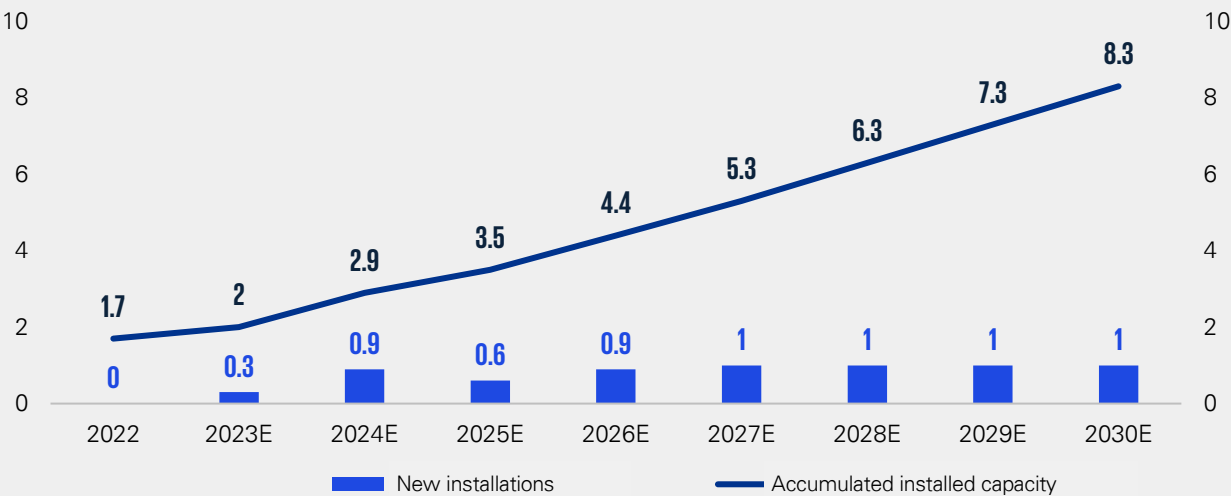
<sup>19</sup> China's state-owned enterprises constructed the first wind power project in the United Arab Emirates, which has now commenced operations – International – People's Daily Online (people.com.cn), <http://world.people.com.cn/n1/2023/10/07/c1002-40089954.html>



Globally, the competitiveness of Chinese wind turbine manufacturers is basically in the first tier. At the 2023 annual "Turbines of the Year" awards issued by the international wind power publication *Wind Power Monthly*, Chinese wind turbine original equipment manufacturers (OEMs) won gold awards for the best onshore wind turbine (below 5.60 MW), the best high-power onshore wind turbine (above 5.61 MW), the best offshore wind turbine, and the best blade.

Chinese wind turbine manufacturers are expected to see a surge in demand as wind power capacity continues to grow in the MENA region. For example, Egypt has abundant wind energy resources along the Red Sea coast, southwest of the Nile River, and in the southern part of the western desert. In recent years, the Egyptian government has collaborated with several leading international wind power equipment and technology companies to introduce advanced wind power equipment and technology in order to meet growing energy demand and improve the reliability of the energy supply, which has supported the development of Egypt's wind power industry. According to the Global Wind Energy Council (GWEC), Egypt's cumulative wind power capacity is forecasted to exceed 8 gigawatts by 2030, with an additional installed capacity of approximately 6.6 gigawatts from 2023 to 2030. Assuming a turbine price of RMB 1,400 per kilowatt, the size of this market could potentially reach RMB 9.24 billion (Figure 15).

Figure 15 | Forecast of wind power capacity in Egypt (gigawatts)



Data source: GWEC, KPMG analysis

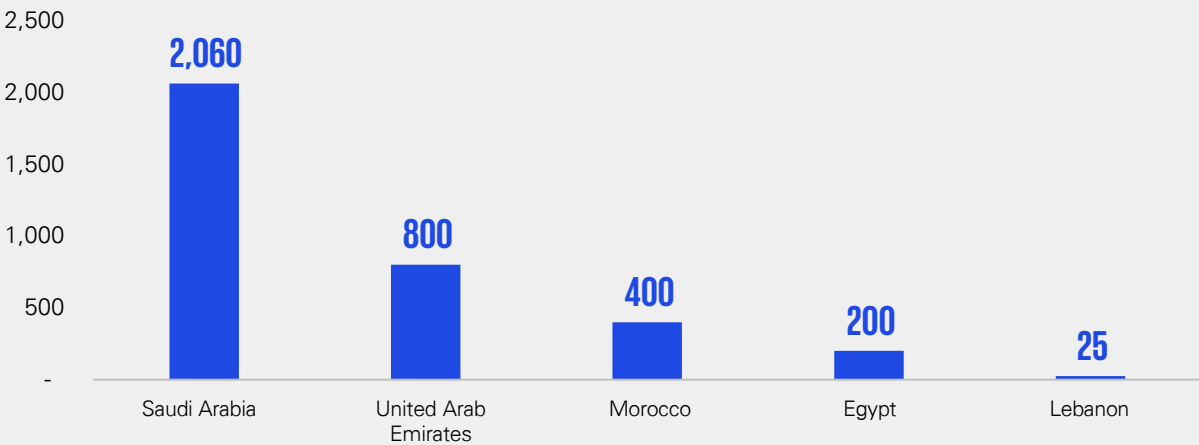
Apart from Egypt, the potential for the development of wind energy in the UAE is also not to be underestimated. The country's terrain mainly consists of flat deserts and a few oases, and it lacks high mountains, canyons, and other geographical features that accelerate wind speeds, resulting in lower natural wind speeds, which are not conducive to the large-scale development of wind energy. However, based on innovations in climate technology, larger turbines, lower hardware costs, and unique weather in the UAE that generates strong winds at night, wind energy projects in the country remain economically viable. In the long run, Saudi Arabia, Morocco, Egypt, and Oman can develop offshore wind energy. Currently, the main obstacle lies in the fact that most maritime activities in these countries are related to oil and gas, and the wind power industry is still in an early stage of development.

## 2.4 Energy storage: Some battery companies are actively positioning themselves, and Saudi Arabia is expected to drive demand for large-scale energy storage

Chinese energy storage companies continue to expand their presence in the global market, and they have established a relatively comprehensive marketing network in the MENA region. Currently, they mainly deliver products and technical solutions and are gradually competing in the local energy storage market by means such as cooperation in energy storage projects and investment in factory construction, following an integrated development path of "investment-construction-operation."

As early as October 2021, Huawei signed a 1.3 gigawatt-hour energy storage project in Saudi Arabia's new Red Sea city, NEOM, with Shandong Electric Power Construction Corporation Three. In this project, Shandong Electric Power Construction Corporation Three served as the EPC general contractor, and Huawei was responsible for providing the battery energy storage system for the off-grid energy storage project<sup>20</sup>. In July 2024, Yang Guang Energy announced that it had signed an agreement with Algihaz Holding in Saudi Arabia for a storage project with a capacity of up to 7.8 gigawatt-hours, and it delivered over 1,500 liquid-cooled energy storage systems<sup>21</sup>. Additionally, public records show that the energy storage products of several Chinese companies such as Jinko Energy, SMS Electric, CATL, and Fujian STAR-NET have already successfully entered the MENA market, while some companies—including Hainan Drinda New Energy Technology Co.,Ltd. and Jinko Energy—have already started deploying key segments of their industrial chain capacity (Table 7).

**Figure 16 | Energy storage bidding/construction projects in some countries in the MENA region in 2023-2024 (megawatt-hours)**



Data source: Energy Storage News, KPMG analysis

With the continued upgrading of power infrastructure and the increase in the proportion of renewable energy installations in the MENA region, the overall installed capacity of grid energy storage is expected to continue to expand. Over the next two years, demand is expected to reach no less than 5 gigawatt-hours in total, with Saudi Arabia poised as strong demand driver (Figure 16).

<sup>20</sup> Huawei signed onto the energy storage project in Neom City, Saudi Arabia – Economy & Technology – People's Daily Online (people.com.cn), <http://finance.people.com.cn/n1/2021/1019/c1004-32257701.html>

<sup>21</sup> 7.8 GWh! Sungrow signs onto the world's largest energy storage project with Saudi Algihaz (people.com.cn), [http://paper.people.com.cn/zgnyb/html/2024-07/22/content\\_26071637.htm](http://paper.people.com.cn/zgnyb/html/2024-07/22/content_26071637.htm)

## 2.5

## Hydrogen energy: In the early stage, enterprises are focusing on international cooperative demonstration projects, with the initial outline of an outbound model emerging

In recent years, countries such as Saudi Arabia, the UAE, and Egypt have all introduced hydrogen development plans and advocated for hydrogen development through international cooperation, and some domestic enterprises have already entered the Middle East hydrogen market. According to the Orange Group's H2 PLUS Data database, so far, Chinese companies have engaged in about 34 hydrogen cooperation projects in the Middle East region, with a focus on clean hydrogen demonstration cooperation, green hydrogen trade, and related supply chain construction projects<sup>22</sup> (Table 8).

**Table 8** Chinese enterprises cooperating with governments and businesses in the MENA region on hydrogen projects in 2023-2024

Enterprise	Partners	Signing date	Signing location	Cooperation	Investment scale
GUOFUHEE	Ministry of Economic Development of Abu Dhabi	May-24	Abu Dhabi	Signed a memorandum of cooperation, with plans to establish the first hydrogen equipment factory in Abu Dhabi	USD 272.3 million
China State Construction Engineering Corporation	SK Ecoplant from South Korea is collaborating with the Egyptian New and Renewable Energy Authority, the Egyptian Transmission Company, and other entities as part of a consortium	Mar-24	Egypt	Signed a cooperation memorandum of understanding (MOU) to invest in a large-scale green hydrogen/green ammonia project in Egypt. The project will be fully powered by renewable energy, with plans to build a 778MW renewable energy power station, including a 500MW photovoltaic power plant and a 278MW onshore wind power station. A 250MW electrolysis system will be constructed to produce 50,000 tons of green hydrogen, which will then be converted into green ammonia for export. Commercial operations are expected to commence in 2029	USD 190 million
Shuangliang ECO-ENERGY	United Solar Polysilicon (FZC) SPC	Jan-24	Oman	Shuangliang ECO-ENERGY and its wholly-owned subsidiary, Shuangliang New Energy, won the bid for the United Solar Polysilicon (FZC) SPC project in Oman, which aims to produce 100,000 tons of high-purity silicon-based materials annually. The scope of the bid includes multi-stick reduction furnaces and tail gas jacketed tubes, green power intelligent hydrogen production equipment, and lithium bromide units (including an electrolysis hydrogen production equipment bid scale of 400 m³/h)	USD 58.32 million
Intellipower	/	Jan-24	Saudi Arabia	The single 23MW rectifier container system for electrolytic water hydrogen production in the Middle East has passed the acceptance test and been successfully shipped	/
Peric Hydrogen	An Australian company	Dec-23	Abu Dhabi, Morocco, Tunisia, Libya	Reached an intention to cooperate on four sets of containerised hydrogen production and refueling equipment, which will be applied to green hydrogen transportation demonstration projects in Abu Dhabi in the Middle East, as well as Morocco, Tunisia, and Libya in North Africa	/
WISDOM MOTOR	The Integrated Transport Center (ITC), under the Department of Municipalities and Transportation (DMT) in Abu Dhabi	Nov-23	United Arab Emirates	Deliver the first hydrogen bus for the UAE, equipped with a 110 kilowatt hydrogen fuel system, with a maximum range of up to 500 kilometers	/
Hydrosys	National Oil Company of the United Arab Emirates and the Dubai Electricity and Water Authority	Nov-23	United Arab Emirates	The integrated comprehensive station for renewable energy hydrogen production and refueling has been put into operation, with Hydrosys providing overall EPC services and designing and manufacturing all hydrogen refueling station equipment	Over RMB 100 million
China Energy Engineering Corporation Limited	Suez Canal Economic Zone Authority (SCZone)	Jan-23	Egypt	A green ammonia and green hydrogen project will be built in the industrial zone of Ain-Sokhna, Egypt, producing 1.2 million tons of green ammonia and 210,000 tons of green hydrogen annually	USD 6.75 billion
SUNGROW	Larsen & Toubro (L&T)	Aug-23	Saudi Arabia	Provide inverter solutions for a 2.2GWAC photovoltaic power plant for the Saudi Neom green hydrogen project	/
Jinko Energy	Larsen & Toubro (L&T)	Jul-23	Saudi Arabia	Supply 1GW solar photovoltaic modules for the Saudi Neom green hydrogen project	/

Source: The Orange Group, KPMG analysis

<sup>22</sup> Chinese hydrogen companies venture into the Middle East, how many orders have they signed? (List attached), <https://mp.weixin.qq.com/s/B1O9-f9SAYpQ1Tr1uv2Lbw>



Overall, in respect of hydrogen exports to the Middle East, Chinese enterprises have initially used three types of models:

- **Integrated new energy business development**

By integrating multiple clean energy technologies, enterprises can provide a one-stop solution for wind, solar, hydrogen, and storage, thereby meeting market demand for comprehensive energy services. Companies using this model have cost advantages and overseas sales experience. They originally focused on new energy sectors such as photovoltaic and wind power, and then gradually expanded into the production and sale of hydrogen equipment, and finally developed towards an integrated approach to wind, solar, hydrogen, and storage. These companies include Longi Hydrogen, Sunshine Hydrogen, and Shuangliang Eco-Energy.

- **EPC cooperative development**

By cooperating with large state-owned enterprises such as China Energy Engineering Corporation, enterprises can enter the Middle East market by participating in bidding conducted by EPC vendors for hydrogen equipment. Such companies can leverage their strong group resources and established channels to continuously expand their overseas business. These enterprises include PERIC Hydrogen, among others.

- **Independent development of overseas markets**

Through cooperation with relevant overseas enterprises and industrial funds, companies can independently develop overseas projects and directly connect with the Middle East market. Relevant enterprises include Jiangsu Guofu Hydrogen Energy, Angstrom Renewable, Kylin Technology, and Intellipower.

It is worth noting that, at this time, there are currently few actual projects involving Chinese hydrogen energy companies going overseas to the Middle East; but in the future, Chinese hydrogen energy companies are expected to be presented with a large number of opportunities to venture into the Middle East market. According to data from the IEA, by October 2023, the MENA region had invested in about 90 low-carbon hydrogen projects, reflecting a year-over-year increase of 53%, among which 7% had been completed and were operational.





## 03

# Trends for Chinese New Energy Enterprises Going Abroad in the Middle East





## 3.1 Analysis of opportunities

### 3.1.1. The Belt and Road Initiative lays the foundation for future energy cooperation between China and Arab countries.

In 2001, China joined the World Trade Organization, and in 2013, the Belt and Road Initiative was proposed, gradually strengthening the country's ties with Arab countries. Over the past decade, Sino-Arab economic and trade exchanges have grown, marking a restructuring and rebalancing of the global economic landscape. Recently, China signed cooperation documents to jointly build the Belt and Road with 22 Arab countries and the Arab League. In 2023, Sino-Arab trade reached nearly USD 400 billion, and China has maintained its position as the largest trading partner of Arab countries for many consecutive years. Arab countries are also China's largest overseas source of crude oil<sup>23</sup>. On 30 May 2024, the 10th ministerial meeting of the China-Arab States Cooperation Forum was successfully held, during which China signed multiple bilateral and multilateral cooperation documents with participating countries and the General Secretariat of the Arab League. The meeting's attendees also adopted three important documents: the Beijing Declaration, the Action Implementation Plan for the China-Arab States Cooperation Forum from 2024 to 2026, and the China-Arab States Joint Statement on the Palestinian Issue, reflecting the shared positions of China and Arab countries on core issues such as global governance, counter-terrorism, climate change, and bilateral economic and trade cooperation. These documents are conducive to building a China-Arab Community with a shared future. In this context, for global business executives and multinational corporations, both China and Arab countries are major markets and integral parts of their global strategies.

In the field of new energy, China and Arab countries have the same policy development orientation, which is expected to stimulate broad cooperation opportunities. From 2008 to 2023, the National Energy Administration of China and the Arab League jointly hosted seven sessions of the China-Arab Energy Cooperation Conference. At the latest session, representatives from both sides discussed cooperation in areas such as oil, natural gas, electricity and energy storage, renewable energy, and hydrogen, centered around the theme "Adhering to high quality, high standards, and sustainability, ushering in a golden era of China-Arab energy cooperation." The Chinese side proposed four cooperation initiatives: first, deepening traditional energy cooperation and consolidating the foundation of pragmatic cooperation; second, expanding clean energy cooperation and promoting low-carbon transformation in the energy sector; third, strengthening policy alignment on energy and improving mechanisms for energy cooperation; and fourth, reinforcing the concept of shared destiny and safeguarding global energy security<sup>24</sup>.

Specifically, Arab countries generally have a more urgent need for development and energy transformation, while China is accelerating the formation of new quality productive forces. In industries such as photovoltaics, wind power, energy storage, and hydrogen energy, China not only has more advanced technology but also a more mature and comprehensive industrial chain. Both sides can fully match elements of supply and demand in terms of technology, markets and capital. Considering the Eight Major Common Actions proposed during the first China-Arab States Summit, China is willing to work with Arab countries to jointly build the China-Arab Clean Energy Cooperation Center, support Chinese energy companies and financial institutions in participating in renewable energy projects with a total installed capacity exceeding 5 GW in Arab countries, cooperate in energy technology R&D, and strengthen energy policy coordination<sup>25</sup>. In the medium to long term, green development is expected to be a primary focus for the joint development of the Belt and Road Initiative and the path to creating a golden period for China-Arab energy cooperation. Green development is also an important process for developing new quality productive forces, and it will continue to provide broad development opportunities for Chinese new energy companies.

<sup>23</sup> China-Arab States Cooperation Forum Action Implementation Plan for 2024-2026 (chinaarabcf.org), [http://www.chinaarabcf.org/lthyjwx/bzjhywj/dshijbzjhy/202406/t20240606\\_11381295.html](http://www.chinaarabcf.org/lthyjwx/bzjhywj/dshijbzjhy/202406/t20240606_11381295.html)

<sup>24</sup> The Seventh China-Arab Energy Cooperation Conference was successfully held, [https://www.ndrc.gov.cn/fzggw/wld/zjh/ldtd/202310/t20231010\\_1361139.html](https://www.ndrc.gov.cn/fzggw/wld/zjh/ldtd/202310/t20231010_1361139.html)

<sup>25</sup> Xi Jinping proposed the "Eight Common Actions for Practical Cooperation between China and Arab States" at the first China-Arab States Summit, [https://www.gov.cn/xinwen/2022-12/10/content\\_5731138.htm](https://www.gov.cn/xinwen/2022-12/10/content_5731138.htm)

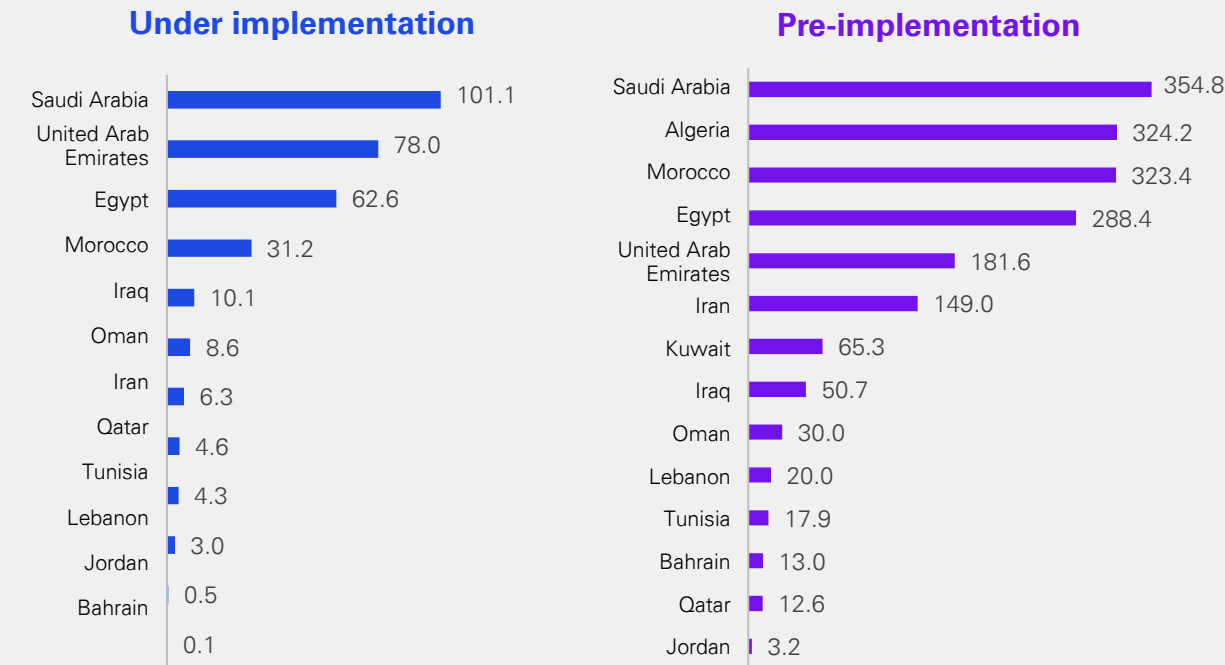
3.1.2. The construction projects undertaken by NEOM and others are expected to unlock a trillion-dollar market potential.

Currently, renewable energy and clean energy projects involving Chinese enterprises are becoming important components of the power grids in Gulf countries and the North African power corridor, with Saudi Arabia, the UAE, and Morocco becoming key partners.

According to MEED statistics, the total amount of renewable energy projects implemented and planned in MENA countries in 2023 stood at USD 214.4 billion, with Saudi Arabia ranking first (Figure 17). In addition, based on forecasts from the Arab Petroleum Investments Corporation (APICORP), Saudi Arabia leads other countries in national-level renewable energy investments in the MENA region from 2022 to 2026, with the main project being NEOM<sup>26</sup>. NEOM is a model "future city" being developed by Saudi Arabia under the Vision 2030 framework. This "future city"—which plans to accommodate up to five million people—will exclusively use wind power, solar power, and other renewable energy sources, achieving 100% zero emissions. The total investment scale is expected to reach USD 500 billion (approximately RMB 3.6 trillion), potentially creating a trillion-dollar market space.

According to public information, several Chinese new energy companies have harnessed their outstanding technological strength, rich experience, and excellent project management capabilities to provide comprehensive support and services for the NEOM project<sup>27</sup>. As projects like NEOM advance, they are expected to bring greater business opportunities to more Chinese companies.

Figure 17 | Renewable energy projects in a selection of countries in the MENA region (in USD 100 millions) in 2023



Data source: MEED, KPMG analysis

<sup>26</sup> MENA Energy Investment Outlook 2022-2026, [https://www.apicorp.org/wp-content/uploads/APICORP-Annual-MENA-Energy-Investment-Outlook-2022-26\\_EN.pdf](https://www.apicorp.org/wp-content/uploads/APICORP-Annual-MENA-Energy-Investment-Outlook-2022-26_EN.pdf)

<sup>27</sup> Chinese companies involved in seven major projects for the NEOM "future city" in Saudi Arabia - Arab-China Institute for Economics and Policy (aciep.net), <https://www.aciep.net/blog/archives/1917>



### 3.1.3. Chinese companies continue to hone their capabilities in the construction of the global value chain for new energy.

In recent years, Chinese new energy enterprises have been active overseas, reflecting a shift in industries such as photovoltaics from "Made in China, Sold Overseas" to "Made Globally, Sold Globally." Relevant enterprises have gradually honed their overall capabilities in global market competition, building a Chinese new energy industry chain that is highly resilient and resistant to risk. This trend is mainly reflected as follows:

- China's new energy industry chain is relatively comprehensive, covering key mineral extraction, raw material processing, production of critical materials, key components manufacturing, key equipment manufacturing, final product manufacturing, and application of final products throughout various processes. According to IEA statistics, in 2022, China's share in each link of global photovoltaic cell manufacturing (including polysilicon, silicon ingots, wafers, cells, and modules) exceeded 80%, which is more than double China's share of global photovoltaic demand<sup>28</sup>.
- The Chinese new energy industry chain is relatively stable, and its value chain is diversified, with sufficient alternatives and backup options in both upstream and downstream sectors, enabling the entire industry chain to quickly adjust and respond to external shocks. For example, four out of the top five global wind turbine manufacturers and six out of the top 10 electric vehicle battery manufacturers are from China, clearly demonstrating that Chinese enterprises have become a crucial force in stabilising the global new energy industry chain<sup>29</sup>.
- The Chinese new energy industry chain boasts a massive pool of professional talent that covers various processes—from new energy technology R&D and manufacturing to operation and maintenance. According to statistics from the International Renewable Energy Agency (IRENA) and the International Labour Organization (ILO), in 2022, the number of jobs in China's photovoltaic industry accounted for about 56% of the global total, while the number of jobs in the wind power industry accounted for about 48%<sup>30</sup>.
- China's new energy industry chain has strong technological innovation capabilities and is continuously advancing towards high-end and intelligent development. For example, in respect of photovoltaic technology innovation, as of 31 December 2023, the cumulative number of patent applications in China's photovoltaic industry reached 168,000, with 73,000 valid patents and 22,000 valid invention patents, with each figure ranking first globally<sup>31</sup>.

The green and low-carbon transformation is a global imperative. Against the backdrop of various transformation goals that are announced and reiterated by international organisations and forums such as the International Energy Agency, G20, and COP28, the global new energy market is expected to continue to develop. Relying on their years of experience and the robust support of China's new energy industry chain, Chinese enterprises will continue to strengthen their own capabilities, laying a solid foundation for grasping broader global market space.

<sup>28</sup> Special Report on Solar PV Global Supply Chains, IEA

<sup>29</sup> China's new energy industry development promotes global green and low-carbon transformation, [https://www.ndrc.gov.cn/fggz/202405/t20240521\\_1386405.html](https://www.ndrc.gov.cn/fggz/202405/t20240521_1386405.html)

<sup>30</sup> Renewable Energy and Jobs: Annual Review 2023, IRENA, ILO

<sup>31</sup> Annual Patent Development Report of the Photovoltaic Industry (2024), China Photovoltaic Industry Association's Intellectual Property Specialised Committee, etc.

## 3.2 Analysis of challenges

### 3.2.1. The energy transition in the MENA region still faces many uncertainties.

As MENA countries accelerate the implementation of their energy transition strategies and promote the establishment of new energy projects, there has been a significant increase in renewable energy capacity in the region. However, MENA's power generation structure has not undergone a fundamental transformation, mainly due to the many uncertainties surrounding the countries' energy transitions. These uncertainties include the following:




- The geopolitical situation in the region is relatively volatile and unpredictable, with local conflict events occurring from time to time; and the relationships among various parties are complex and dynamic, which may interfere with and hinder the energy transition process.
- The region's economy has long been dependent on traditional energy sources such as oil and natural gas. During the energy transition, this single-focused economic model appears particularly vulnerable. For most countries, balancing short-term economic stability with long-term energy transformation needs is a major challenge.
- The core of the energy transition lies in technological innovation, but the region's new energy technologies are highly dependent on European and American standards, which to some extent will hinder its independent transformation.
- The development model for renewable energy projects is relatively single-focused and monolithic, with countries mainly relying on government-owned or controlled energy companies to develop utility-scale, centralised power generation projects. These projects then sell clean electricity to end users through vertically integrated, monopolistic operating systems, making related investments highly susceptible to fluctuations in government budgets.



### 3.2.2. The more complex the business environment, the greater the difficulty in making decisions about models for going abroad.

The model used by Chinese new energy enterprises going to the Middle East is changing from single export trade to a more flexible investment model, and a considerable number of enterprises hope to explore the local market through transnational investment. However, in this context, enterprises will face a more complex business environment, and they will need to weigh the advantages and disadvantages of different entry models to effectively integrate their own advantages with local markets (Table 9).

**Table 9 Comparison of the strengths and weaknesses of different overseas investment models**

Overseas investment model	Advantages	Disadvantages
<b>Greenfield investment</b> 	<ul style="list-style-type: none"> <li>• High return on investment</li> <li>• Advantages in technology and management</li> <li>• Supply chain cooperation benefits</li> <li>• Control and decision-making rights</li> <li>• Incremental benefits (new job creation, tax revenue, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Project cycle is long</li> <li>• Large funding requirements</li> <li>• Risks are complex and diverse (political risks, legal risks, market risks, construction risks, etc.)</li> <li>• Management difficulty is high</li> </ul>
<b>Mergers and acquisitions</b> 	<ul style="list-style-type: none"> <li>• Rapid entry into the market</li> <li>• Obtain technology and branding</li> <li>• Resource integration and synergy effects</li> <li>• Reduce the risk of entering new markets</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive</li> <li>• Integration difficulties (cultural integration, management integration, technical integration)</li> <li>• Legal and policy risks</li> </ul>
<b>Joint ventures</b> 	<ul style="list-style-type: none"> <li>• Resource sharing and complementary advantages</li> <li>• Risk diversification</li> <li>• Market expansion and brand enhancement</li> <li>• Technical exchange and innovation</li> <li>• Policy utilisation and tax incentives</li> </ul>	<ul style="list-style-type: none"> <li>• Management difficulty is high</li> <li>• Cultural conflict and integration challenges</li> <li>• Distribution of benefits and resolution of conflicts</li> <li>• Technical dependence and intellectual property risks</li> <li>• Market response speed is limited</li> </ul>

Source: KPMG analysis

- **Policy environment:** In respect of new energy, there are significant differences in the policy support and regulatory frameworks implemented by MENA countries. When entering the MENA market, a considerable number of inexperienced Chinese enterprises face problems such as opaque information and poor understanding of policy details, leading to hesitation or mistakes in decision-making. For example, Saudi Arabia, the UAE and other countries are actively promoting renewable energy strategies. On the other hand, Bahrain, Kuwait, Qatar and other countries are slightly less committed to the energy transformation, so their proposed energy transformation goals and policies are relatively conservative.
- **Market environment:** MENA's new energy market is generally in an early stage of development, but there is no lack of well-established, relatively mature market segments in the region, and as a result, enterprises need to quickly adapt to the differentiated market environment. In addition, from the perspective of market participants, in addition to local enterprises, European and American enterprises possess certain brand and technological advantages, and also enterprises from other emerging markets continue entering. In this context, Chinese enterprises need to not only consider technological innovation and market segmentation when formulating competitive strategies, but also flexibly respond to competition from multiple parties.
- **Social environment:** MENA's traditional values are closely linked with Islamic culture, which has formed a unique social outlook and code of conduct that profoundly affect people's business practices. Islamic teachings emphasise honesty, justice, and fairness. Entrepreneurs in this region also integrate these principles into their business management, and tend to choose partners with similar values who know how to respect local culture and customs when conducting business. In addition, Islam prohibits interest, which makes the relationship between investors and banks in the local financial system no longer a simple deposit and loan relationship, but a relationship that involves sharing risks and benefits.



### 3.2.3. The economic viability of new energy projects that Chinese enterprises are participating in needs to be improved.

Currently, Chinese companies mainly enter the local market in the MENA region by participating in large new energy IPP projects released by these countries, primarily taking on roles as equipment suppliers and engineering contractors. Under the IPP model, developers hold market dominance, pricing power, and rule-making authority, often transferring some risks to contractors and financial institutions through measures such as financing structures and mechanisms for allocating rights and obligations. This leads to significant profit pressure on Chinese contractors in this market, with cost control directly impacting the companies' competitiveness locally. In this regard, cost control covers management costs, operation and maintenance costs, sales costs, and channel costs, among others.

In the long run, more and more enterprises and countries are expected to enter the MENA new energy market, which will lead to increasingly fierce competition that may further harm the economic viability of Chinese enterprises undertaking related projects. Although some Chinese companies have begun to vie for project development dominance, local sponsors often explicitly require the use of European and American standards during the bidding and implementation phases, to a certain extent excluding Chinese developers. Against this backdrop, if Chinese new energy enterprises want to continue expanding in the MENA market in the future, they should not only pursue more market opportunities but also improve the economic viability of their projects. This endeavour presents multiple challenges such as strengthening cost control capabilities, vying for project development rights, optimising localised operations, and exploring diverse business models.





# 04

## Insights into the Middle East Strategy for Chinese New Energy Enterprises Going Abroad



From Zheng He's voyages to the Western Seas during the Ming Dynasty, to the Belt and Road Initiative, to the new "dual circulation" development pattern that features both domestic and international economic flows, Chinese efforts to go abroad have never ceased, but the question of how to "go global" remains as fresh as ever. In light of the vast market opportunities in the Middle East, there is no shortage of Chinese new energy enterprises eager to venture abroad. However, challenges abound, including in respect of ever-changing international dynamics, deep adjustments in the global industry landscape, the construction of commercial ecosystems for individual products and industries, and the efforts of individual companies and personnel to put down roots abroad. The ability of enterprises to plan with a global perspective—from high-level strategies down to implementation details—often determines which will find success. With their rich experience, teams from KPMG China's audit, advisory, and tax business lines have deeply analysed the background, current situation, and trends of Chinese new energy enterprises going abroad in depth, and they have summarised a three-dimensional, one-stop overseas strategy spanning the strategic level, planning level, business level, operational level and implementation level, with the aim of providing a valuable reference for the industry.

## 4.1 Strategic level: Systematic design and precise positioning

When Chinese new energy enterprises decide to expand into the Middle East market, their primary task is to use systematic thinking to build a high-level strategic framework. Using this framework, they can accurately position target markets and customers, formulate reasonable overseas expansion plans, and ensure a competitive advantage amid intense market competition. This process not only involves deep market insight but also broad and prospective strategy formulation.

- **Macro environment analysis**

Enterprises should conduct a comprehensive review of multiple aspects of the Middle East region, including political stability, economic development levels, social and cultural characteristics, and technological development trends. Political stability directly affects investment security and long-term planning; economic development determines potential market demand; social and cultural characteristics influence localisation strategies; and technological trends chart the path for innovation and cooperation.

- **Industrial environment analysis**

Companies need to perform a detailed examination of tax incentives, specialised industrial policies, supporting infrastructure, and peer benchmarking in the region. Tax incentives and industrial policies, as important external incentives, can effectively reduce enterprises' initial operating costs; the status of supporting infrastructure determines the foundation for long-term operations; and a deep analysis of benchmarking cases allows enterprises to learn from the experiences and lessons of others, reducing the need for trial and error.

- **Enterprise resource capability analysis**

To understand both themselves and their competitors, enterprises need to engage in both internal and external analysis. Companies should thoroughly analyse their own resources and capabilities, identify competitive advantages and disadvantages, and integrate the critical success factors of the industry to build their own competitive advantages. Analysis should cover technological innovation capabilities, production and manufacturing capabilities, marketing capabilities, capital operations capabilities, international business experience, reserves of cross-border talent, and global partnerships.

- **Going abroad strategy formulation**

Based on the results of comprehensive and systematic analysis, enterprises should devise clear strategic goals and directions, with a focus on specific market segments and customer groups, and then design differentiated market entry models, product development plans, channel expansion strategies, etc. For example, in terms of entry models, a joint venture factory model can be adopted to quickly integrate into the local market; and in terms of differentiation strategies, adaptive photovoltaic components and energy storage systems can be developed to address extreme climate conditions such as high temperatures and sandstorms in the region.



## 4.2 Planning level: In-depth research and reasonable decision-making

Before officially entering the Middle East market, it is crucial for Chinese enterprises to conduct in-depth research and customer analysis. Information should be collected through multiple channels to understand the size of the new energy market segment, the competitive landscape, customer characteristics, etc., so that more targeted market strategies can be developed. For example, to adapt to customer characteristics, enterprises can develop reasonable strategies in the following aspects:

- **Reasonably assess customers' price sensitivity and adopt refined dynamic cost management strategies.**

The price sensitivity of customers is directly related to their final procurement decisions. In past research, KPMG China has found that Middle Eastern customers do not easily accept the initial offer during negotiations; they tend to compare prices extensively and engage in multiple rounds of negotiations to find the most competitive price. However, they are willing to pay for solutions with high technological content and high service value. Therefore, after fully understanding competitors' quotes, enterprises should develop reasonable pricing strategies, showcase their technical capabilities and unique value in communication with customers, and prepare a strategy for long-term negotiations.

- **Focus on the main factors affecting customer satisfaction and adopt a strict management strategy to improve quality and efficiency.**

Customer satisfaction is a key indicator for measuring the success of business cooperation and directly affects the possibility of future collaboration. In the firm's comprehensive analysis of past cases, KPMG China has found that Middle Eastern customers typically expect suppliers to respond quickly to their needs, and deliver high-quality products or services in a timely manner. In the event of delayed delivery or substandard quality, customers may claim compensation from the supplier, or even consider discontinuing the partnership. Therefore, enterprises should pay close attention to specific customer requirements for project outcomes, strictly ensure that the results delivered in each stage of cooperation meet or exceed customer expectations, continuously improve management efficiency and quality, and enhance customer satisfaction.

- **Conduct a deep analysis of the stylistic differences in cross-cultural business communication between China and Arab countries, and develop a prior cultural integration plan.**

In cross-border business activities, there are significant cultural differences between different countries and regions, which may lead to misunderstandings or even conflicts in business communication. Enterprises should thoroughly understand the various differences in cross-cultural business communication between China and Arab countries, and develop cultural integration plans based on respect for these differences. Through positive and transparent communication, mutual trust can be enhanced. For example, in Middle Eastern business culture, good personal relationships and etiquette are considered important factors in promoting business cooperation. Middle Eastern clients tend to rely on good personal connections to promote business cooperation, which often requires suppliers to demonstrate high levels of respect and sincerity in their interactions.



4.3




Business layer: Refined assessment and activation of resources

When actually conducting business in the Middle East market, Chinese new energy enterprises can perform meticulous project feasibility assessments and apply effective resource integration strategies in order to maximise the economic and social benefits of their projects.

• **Project feasibility assessment**

First, comprehensive due diligence should be conducted for relevant business projects—including legal due diligence, financial and tax due diligence, market due diligence, and technical environment due diligence—to confirm whether the project is financeable and to identify risks early and develop effective mitigation strategies. Second, enterprises should thoroughly analyse the feasibility of the project in areas such as the reliability of construction conditions, the maturity of technology, and the rate of return on investment, to prevent hasty decisions (Table 10). Given that overseas projects like IPP projects tend to have characteristics such as long cycles, high professionalism, numerous participants, and complex and diverse information, introducing third-party consulting firms, accounting firms, and other professional service providers is almost a necessity, and the earlier the professional team gets involved, the better the assessment results usually are.

**Table 10** Feasibility analysis framework for Middle East IPP projects

Technical feasibility analysis	Financial feasibility analysis	Feasibility analysis of financing
<ul style="list-style-type: none"><li>Feasibility of study and design</li><li>Feasibility of equipment and procurement</li><li>Feasibility of construction technology</li></ul> 	<ul style="list-style-type: none"><li>Debt repayment capability analysis</li><li>Project profitability analysis</li></ul> 	<ul style="list-style-type: none"><li>Viability of business model</li><li>Reliability of power grid infrastructure</li><li>Reliability of power dispatch management</li></ul> 

Source: KPMG analysis



- **Resource integration strategy**

In the Middle East's new energy market, Chinese enterprises have advantages in technology, talent, and supply chain, among other areas. Local players' strengths include abundant wind and solar resources, strong investment demand, and familiarity with local market rules. Relevant companies can build long-term partnerships with local enterprises or investment institutions by thoroughly assessing their internal and external advantages, and achieve complementary resource advantages through technology exports and joint development. Based on the firm's experience in providing services for clients' overseas projects, KPMG China has summarised the following key topics that should be considered when selecting partners:

- 1. Compliance with the legal requirements of the target jurisdiction**

When Chinese enterprises engage in sales or bidding activities overseas, they often involve local agents, and they should thoroughly understand local laws and regulations and carefully sign relevant agreements to avoid contract disputes due to insufficient information.

For example, according to the *Provisions and Implementation Rules for Commercial Agency in Saudi Arabia*, foreign enterprises can only sell goods in Saudi Arabia through agents or distributors, and such agents must be citizens of Gulf Cooperation Council member states (UAE, Oman, Bahrain, Qatar, Kuwait, and Saudi Arabia) or legal entities wholly-owned by such citizens. If it is a legal entity, the entirety of its capital must be owned by Saudi nationals, and its board members and authorised signatories must also be Saudi nationals. For instance, according to the regulations of the Supreme Consultative Committee of Abu Dhabi Emirate, government project tenders are divided into international tenders and local tenders. When Chinese companies participate in international tenders, if they are not registered locally, they must first find a local project agent or partner. Local bids are limited to local companies and foreign companies that have been registered locally and that have obtained grading certificates.

- 2. Appropriately leverage relationships such as those with chamber of commerce organisations**

In international trade and economic exchanges and investment cooperation, chambers of commerce often serve as important platforms for resource integration. Chinese enterprises can appropriately leverage chambers of commerce that are backed by government departments, have a longer operating history, and strong influence to expand their network of relationships and access more high-quality resources.

The UAE-China Chamber of Commerce is a non-profit social organisation composed of Chinese-funded enterprises and institutions in the UAE. On 22 June 2004, under the leadership and guidance of the Chinese Embassy and Consulates in the UAE, the UAE-China Chamber of Commerce was officially established and registered with the Ministry of Commerce of China, and received recognition from the UAE Chambers Federation. In May 2010, the Dubai Chamber of Commerce issued an official registration certificate to the China Chamber of Commerce, establishing its legal status in Dubai. Currently, the member companies of the UAE-China Chamber of Commerce cover various industries, including energy, construction, logistics, and finance. Through the chamber, Chinese companies can enhance their understanding and communication with local governments and business communities, and expand opportunities for business cooperation.



### 3. Reasonably evaluate the financial condition, industry position, etc. of partners

Chinese enterprises should conduct comprehensive due diligence on potential partners through market research and communication with other companies in the industry before deciding to establish a partnership. Financial due diligence should include analysing and verifying key financial indicators such as the balance sheet, income statement, and cash flow statement to assess the entity's financial stability and long-term debt repayment capability. Additionally, attention should be paid to the company's industry position, such as market share, competitiveness, influence within the industry, and whether it possesses core technologies and patents. Such due diligence work helps ensure that the selected partner has sufficient strength and credibility to jointly bear project risks and achieve win-win development in cooperation. Based on its global resource network and professional teams, KPMG China has accumulated extensive experience in researching Middle Eastern energy companies, financial institutions, and other organisations, and the firm expects to continue contributing its professional strength to the promotion of Sino-Arab cooperation in new energy.

### 4. Establish a risk-sharing and benefit-sharing mechanism with partners

To ensure the stability and longevity of cooperation, Chinese enterprises should work with partners to establish a risk-sharing and benefit-sharing mechanism, including clearly defining both parties' responsibilities and obligations, setting reasonable risk-sharing ratios, and formulating joint investment return plans. Specifically, the primary basis for delineating rights and responsibilities includes investment amounts, management authority, project division, etc.; the risk-sharing ratio should be set according to both parties' strengths, inputs, and risk tolerance, and determined through negotiation to reflect fairness and sustainability; the investment return plan is a key component, and both cooperating parties should make detailed agreements on the terms, methods, and distribution ratio of investment returns to ensure that the economic benefits of cooperative projects are reasonably allocated. By taking these steps, enterprises can stimulate the enthusiasm and cooperative spirit of both sides.



## 4.4 Operational layer: Comprehensive control and streamlined processes

Business operations involve a comprehensive system that covers multiple areas such as people, finance, and materials. Further optimising business processes will ensure efficient operations and the sustainable development of overseas business. Based on its extensive service experience, KPMG China has devised an all-inclusive service solution covering areas such as human resource management, financial management, tax planning, and supply chain construction.

For example, when constructing an overseas human resource management system, the core approach is to design principles for overseas human resource management based on the analysis of a global human resource control model. Under the guidance of these management principles, and taking into account the conditions of various countries, enterprises can conduct full lifecycle talent management and risk compliance management. In this regard, there are three key steps:

First, enterprises should transform the operating model for overseas human resource functions to comprehensively enhance their business capabilities, professional capabilities, and service operations capabilities and build core competitive advantages that empower overseas business. The complex and changing external environment, as well as increasing pressure to exercise global organisational control during the process of going abroad, has put forward new requirements for the capabilities of core human resource functions. In the face of these new requirements, enterprises are focusing on how to upgrade their human resource operating model and construct an empowering, sharing, efficient, and risk-controlled human resource organisation.

Second, companies should design management principles for overseas human resource operations to provide guidance for human resource management in various countries. This mainly includes establishing a global job grading system, a global compensation system, a global performance system, and a global talent development system. When designing management principles, the enterprise should consider global human resources as a whole while also taking into account country-specific differences, with a view to designing a global talent management system that stimulates the vitality of the organisation's people.

Third, companies should build a global business team, form a sound mechanism for the entire cycle of overseas recruitment and retention, and cultivate talent pipelines that align with their globalisation strategy and support the expansion of global business. Specifically, enterprises need to identify potential risk points in overseas human resource management and devise corresponding response plans in combination with the laws and culture of the country or region. Meanwhile, they also need to create a new global culture, enhance corporate identity and cohesion, and combine local advantages with China's unique imprint.



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Thanks to their excellent natural resources, as well as preferential policies released by various countries to promote energy transformation, Middle Eastern countries have attracted many Chinese new energy enterprises that are going abroad from across the entire industry chain. From silicon chips, batteries and modules, to photovoltaic power generation, wind power and energy storage, Chinese enterprises are actively pursuing business in the region. In the firm's member offices in the Middle East, KPMG has professional teams dedicated to serving local Chinese enterprises. These teams include colleagues who speak Chinese, as well as local industry, finance and tax experts who understand the needs of Chinese clients and are familiar with the investment style of Chinese enterprises. By working closely with these teams, KPMG China can guide Chinese enterprises in carrying out overseas investment and operations in the Middle East.

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In addition, relevant enterprises should put more emphasis on tax and financial compliance, as the diversification of national economies and finances has led to frequent changes in tax systems in some Middle Eastern countries in recent years, and an increased focus on tax inspections.

In October 2023, the Saudi General Authority of Zakat and Tax proposed significant tax reform proposals for corporate income tax and Zakat, among other areas such as withholding tax, permanent establishments, transfer of shares, and interest deductions. These changes will have a major impact on Chinese companies operating in Saudi Arabia. In addition, in recent years, Saudi tax authorities have performed multiple tax audits; and some contracting enterprises in the energy sector—due to large project contract amounts, long cycles, and the substantial tax amounts involved—face the risk of significant back taxes.

Therefore, enterprises should closely monitor changes in local tax policies and strengthen tax structure planning. Typical tax concerns for Chinese companies operating overseas include:

- **Tax compliance in the target country**

Enterprises need to pay attention to the tax system of the target country, especially the differences from China's tax system; understand the requirements for tax declarations; and ensure compliance with local tax regulations through internal oversight or external tax advisors, with a view to avoiding unnecessary tax risks.

- **Operational tax planning**

Based on their main types of business and transactions, companies should plan their transaction models in advance and devise reasonable ways to improve tax efficiency, such as VAT and withholding tax treatment for cross-border service fees and royalty fees, and corresponding agreement benefits.

- **Related-party transactions and transfer pricing**

For related-party transactions (such as the purchase and sale of goods and provision of services), tax authorities may focus on whether the pricing policies comply with local transfer pricing requirements. Enterprises need to conduct transfer pricing risk analysis and prepare relevant documentation in order to reduce the risk of challenges from tax authorities and lower compliance costs.

- **Tax incentives**

Many jurisdictions offer tax incentives to a certain extent for investments in specific industries or regions, including tax exemptions, low tax rates, and tax credits. Some tax incentives must be applied for before business operations commence.

- **Tax matters related to the supply chain**

If a company sets up a production base overseas, the company will need to import and export raw materials and products and consider tax compliance requirements related to imports (such as import tariffs and VAT on imports), as well as local operating costs, such as rent, personnel and management costs, international transportation and logistics costs, and transit fees.

- **Personnel dispatching**

In many cases, enterprises need to dispatch personnel overseas to provide services or engage in management. In this context, they will need to analyse different arrangements for salary disbursements and the associated individual income tax withholding and social security contributions. Additionally, if the dispatched personnel provide services or engage in specific business activities, there may be a risk of inadvertently setting up a permanent establishment in the host country.



## 4.5 Implementation layer: Localisation and comprehensive improvement

Going abroad is merely the method—taking root is the ultimate goal. For Chinese new energy companies going to the Middle East, localisation is not only the endpoint but also the starting point for expanding in the local market. Chinese enterprises should integrate with unique cultural customs, laws and regulations, and business practices in the Middle East and engage in localisation in multiple aspects, including products, services, marketing, human resources, and supply chains, to comprehensively enhance the competitiveness of their overseas enterprises in the market.

In assisting clients with localisation efforts, KPMG China has accumulated a variety of solutions, including strategies for optimising overseas products, outbound channels, marketing planning, and global talent management, as well as a global digital supply chain control-tower system. For each of these, establishing solid connections with local market entities is a prerequisite for localisation efforts. In this regard, enterprises should focus on the following priorities:

- **Handling government relationships**

Chinese enterprises operating overseas cannot do without the support of local governments, especially in close dealings with departments such as investment bureaus, ministries of commerce, and ministries of human resources and social development. They should adhere to the principle of harmonious coexistence and fully respect the regulations and guidelines of relevant departments. Additionally, different countries have unique political systems and institutional setups, and Chinese companies should conduct thorough preliminary research and prepare differentiated responses accordingly.

For example, in Saudi Arabia, the main government entities involved in the new energy sector include the Renewable Energy Project Development Office (REPDO) under the Saudi Ministry of Energy, the Public Investment Fund (PIF), the Saudi Electricity & Cogeneration Regulatory Authority, and the Saudi Power Procurement Company, which are respectively responsible for public bidding for new energy projects, investment and development of large-scale new energy projects and competitive negotiations, market regulation of new energy power in Saudi Arabia, and signing power purchase agreements for new energy investment projects.

For example, the UAE is a federal state where each emirate operates under a hereditary ruling system, with power mainly concentrated among the royal families. Abu Dhabi is the strongest, followed by Dubai, and they bear the majority of the federal budget, with Abu Dhabi shouldering the most. Therefore, Chinese companies conducting business in the UAE should also carefully handle relations with the local royal families.

- **Handling relations with local labour and unions**

When Chinese enterprises operating overseas employ staff, they should strictly abide by relevant labour and employment regulations and properly handle labour relations. For example, the Saudi Arabian job market has long relied on foreign employees. To ensure the national employment rate, the Saudi government sets compulsory ratios for the hiring of Saudi nationals in private sectors across different industries. These ratios correspond to platinum, green, yellow, and red labels. Compliance with these ratios is directly linked to the processing of work visas and tax payments for enterprises, which means that relevant enterprises need to hire a certain number of Saudi nationals before employing necessary foreign personnel.

In countries where trade unions are organised, Chinese enterprises should strengthen communication and dialogue with the unions and fully respect their opinions. For example, in Türkiye, workers can freely organise trade unions and establish non-governmental organisations under certain conditions and with government approval; and related gatherings, processions, and strikes are relatively common.

- **Building closer relations with local residents**

Most residents in Middle Eastern countries are Muslim, and Chinese companies should respect their customs and religious beliefs and avoid arguing about religious topics. For example, Islam has two major religious holidays: Eid al-Fitr and Eid al-Adha. During these periods, local enterprises and residents work fewer hours or take leave, so Chinese companies should avoid engaging in business activities or conducting business visits during these special holidays. Additionally, Islamic teachings stipulate that adults must fast during Ramadan, abstaining from food, water, and even smoking during the day. Non-Muslims do not have to observe this custom, but they should be careful not to eat, drink, or smoke in public during Ramadan, especially in front of Muslims.



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## About KPMG China

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KPMG firms operate in 142 countries and territories with more than 275,000 partners and employees working in member firms around the world. Each KPMG firm is a legally distinct and separate entity and describes itself as such. Each KPMG member firm is responsible for its own obligations and liabilities.

In 1992, KPMG became the first international accounting network to be granted a joint venture licence in the Chinese Mainland. KPMG was also the first among the Big Four in the Chinese Mainland to convert from a joint venture to a special general partnership, which it did on 1 August 2012. Additionally, the Hong Kong firm can trace its origins to 1945. Our early commitment to this market, together with an unwavering focus on quality, has been the foundation for accumulated industry experience, and is reflected in KPMG's appointment to provide multidisciplinary services (including audit, tax and advisory) to some of China's most prestigious companies.

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KPMG China Research Centre is dedicated to conducting in-depth research covering macroeconomics, industries, regional issues, and niche markets. The Centre pools together the research capabilities of China's network and benefits from KPMG's global resources to provide thorough analysis and insights in economic and business fields from an international perspective.

The Centre integrates theory with practice to ensure that research results have both theoretical depth and practical value. Relying on the "dual engines" of data mining and information tracking, the Centre steadily monitors the latest developments in specific industries, including macroeconomic trends, national policies and regulations, leading enterprises, and capital market dynamics. Through publicly-released reports and special research projects, the Centre provides clients with innovative and forward-looking solutions.

The Centre is committed to working with its ecosystem partners to promote growth. By continuously deepening cooperation with national, local, and corporate research institutions, the Centre is actively participating in the development of an innovative, professional and efficient research ecosystem, while providing comprehensive support for the sustainable development of partners.

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KPMG's Global China Practice, based in Beijing, plays a key role in both "bringing China to the world" and "bringing the world to China". The practice has dedicated teams in nearly 60 locations worldwide, including developed markets such as Europe, the USA, and Australia, as well as emerging markets like Southeast Asia, Latin America, the Middle East, and various countries along the "Belt and Road".

Our experts take pride in having participated in many of China's significant outbound mergers and acquisitions, as well as greenfield investments. Additionally, the Global China Practice enhances KPMG's ability to assist foreign companies by connecting them with local partners as they enter and establish themselves in China. Market participants are adapting to thrive in China's "new development paradigm". Foreign companies are actively engaging in China's ongoing economic transformation, achieving mutually beneficial outcomes. We support these companies in aligning their value propositions and business strategies to address new risks and seize emerging opportunities.

KPMG's Global China Practice works closely with both Chinese and foreign companies to help them navigate complex and dynamic business environments. The practice assists in forming important business partnerships and developing strategies for achieving long-term, sustainable positions in the market.



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