Sino-MENA: The green big bang

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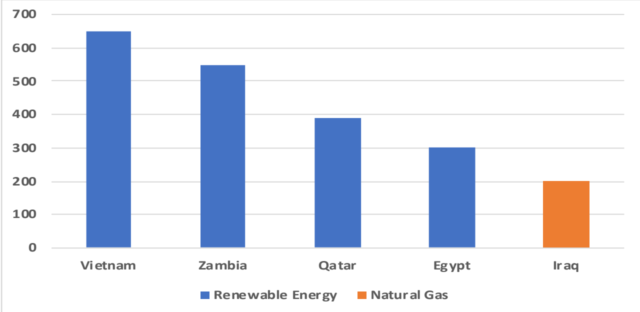
- **Sino-MENA relations were already expanding beyond traditional sectors before the COVID-19 pandemic via BRI investments. Green investments are now accelerating and supporting the MENA diversification drive.**
- **The MENA region's new energy paradigm is bringing with it new market opportunities for Chinese investors to explore. Investment in the region's waste management and smart grid modernisation, in particular, will be top.**
- **With the green shift, Chinese electric vehicles are expected to emerge as new, attractive and cost-competitive models in the MENA region.**

China's green game

China's increasing investment in renewable energies overlaps with the green transition efforts of many MENA countries. As both China the MENA region turn their attention towards renewables, we expect increased collaboration.

- Most of China's investments in the MENA region have been in the conventional energy sector, with 70% allocated to oil and gas fossil fuels. Following the launch of the Belt and Road Initiative International Green Development Coalition (BRIGC) in 2019, China has since adjusted its strategy to focus more on renewable energy.
  - The total value of Chinese investments and contracted projects in the region grew to USD 12.5B in 2019, from a low of USD 1.3B in 2005.
  - For the first time ever, most of China's 2020 foreign energy investments were channelled towards solar, wind and hydroelectric power. Shares in these areas rose from 38% in 2019 to 56% in 2020, reaching an investment total of about USD 11B.
  - Among China's 2020 overseas energy investments, hydroelectric power accounted for 35% of the total, followed by coal (27%) and solar energy (23%).
- China's growing interest in renewable energy is expected to increase due to MENA governments' rapid deployment and investment within the sector. An additional factor is China's pledge to reach net-zero carbon emissions by 2060 and a peak before 2030.
  - Renewable energy in the MENA region has seen a nine-fold increase during the past eight years. By 2025, overall investment is expected to reach USD 183B.
    - This fast-paced growth is driving down financing costs, leading investors to recognise the low-risk levels associated with renewable assets.
  - Additionally, China's large domestic market has allowed companies to grow as global leaders in their respective industries. This includes Hanergy in solar panel production and TBEA in energy storage.
  - This in turn creates huge investment appetite for financing institutions looking towards the MENA region. Examples include the Silk Road Fund, which has invested in Dubai's Mohammed bin Rashid Al Maktoum Solar Park.
- Chinese investors have also been exploring the UAE's renewables sector, particularly for projects involving the production of solar panels, hybrid power plants and green technology.

Figure 1 - Chinese Energy Investments in 2020 (USD,M)[1]



- In April 2020, Emirates Water and Electricity Company (EWEC) awarded the 2 GW Al Dhafra Solar Project in Abu Dhabi, the world's largest solar plant, to a consortium led by France's EDF and China's Jinko Power. The venture includes an evaluated weighted levelised electricity cost tariff of USD 0.7934/kWh.
  - The project is under a public-private partnership scheme, with EDF Renewables and Jinko Power each holding a 20% stake. TAQA and Masdar Clean Energy own the remaining 60%.
- This deal follows a similar joint-venture by Jinko Solar, EWEC and TAQA in the construction of the Noor Abu Dhabi solar plant, which is currently the world's largest operational single-project solar photovoltaic (PV) plant.
  - Once fully operational, the plant will increase Abu Dhabi's solar power capacity to approximately 3.2 GW.
  - At the time of the bid submission in 2016, the Noor Abu Dhabi plant attracted the world's most competitive tariff of 2.4 cents/kWh.
  - This underscores the appeal of market openings in the MENA region's renewables sector. We expect these openings to benefit Chinese investors looking for fresh overseas renewables projects.
- China is also partnering with ACWA Power in Saudi Arabia for projects in the renewables sector.
  - In July 2020, ACWA Power appointed Shanghai Electric as the engineering, construction and procurement (EPC) contractor for the 900 MW fifth phase of Dubai's Al Maktoum Solar Park. The park aims to produce 5 GW and attract around USD 13.6B in investments by 2030.
  - Previously, ACWA Power and Shanghai Electric partnered to lead Dubai's 950 MW concentrated and PV solar power Noor Energy 1 project.
- Several countries including Egypt, Qatar and Oman received 100% green investments in their energy sectors from China in 2020.
- The disproportionate growth of Chinese overseas renewable energy investments last year signals that further Chinese investment in the renewables sector is expected going forward.

Chinese investments in the MENA region are currently focused on green energy production. However, there are plenty of emerging markets, including smart grid infrastructure and waste management.

- Smart grid infrastructure developments in the MENA region are finding their way onto governments' renewable energy investment radars. They will be critical for enabling higher levels of renewables in electricity systems.

[1] Arabia Monitor; China Economic Net.

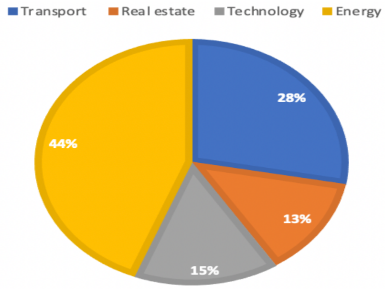
- However, the development of smart grid infrastructure also poses a challenge in the MENA region. Technology and investment deployment remain limited for supporting large-scale power supply from renewable sources. This provides Chinese investors with an untapped leveraging opportunity, although regulatory hurdles persist.
    - Grid modernisation in the MENA region is still in its nascent stages, but this is rapidly changing as the energy transition trend gains momentum. Investment in the MENA region's smart grids is forecast to reach USD 17.6B by 2027.
    - Saudi Arabia, Egypt and the UAE are expected to lead modernisation efforts in the region over the next ten years.
        - Through the use of smart grids, it is estimated that the Gulf Cooperation Council (GCC) could save up to USD 10B in infrastructure investments next year.
- Domestically, China is expected to invest nearly USD 900B in the next five years to develop its smart grid infrastructure.
    - Internationally, Chinese vendors such as Hexing, Holley Metering, Huawei and ZTE are already advancing in this field, with many projects being implemented in collaboration with local prime contractors.
    - Going forward, the MENA region is well positioned to receive similar attention. The adoption of smart grid technologies is becoming a key driver in the region's energy transition. This will serve China's opportunistic regional investment approach well.
- Separately, GCC ambitions to achieve a recycling rate of 40% (up from 10%) provides investors with commercial opportunities in the recycling market. The GCC's total waste management market size is expected to grow at a rate of around USD 6B per year.
    - China has already started to invest in waste management in BRI countries. Deals similar to the USD 3.8B China Road and Bridge Corporation contract with Serbia's construction ministry to improve waste utilities will likely emerge in the MENA region going forward. But Chinese companies could face specific challenges, such as slow government policy formation and execution.
- The positioning of Chinese companies along new value chains in terms of market potential could lead to more participation in projects throughout the region.
    - This presence will allow the consolidation of existing partnerships with regional local players and help to facilitate the acceleration of the MENA region's 'green shift'.

Chinese electric vehicles gaining a foothold in MENA

In terms of sales, China has led the new energy vehicle (NEV) market since 2015, with most of its automakers focusing domestically. However, this trend has recently shifted to exports to the MENA region, now a growing market for Chinese automakers.

- The MENA region's increasing demand for electric mass transit solutions coupled with governmental efforts to reduce emission and localise production technologies has driven its electric bus market upwards.
    - Chinese companies are already seizing the opportunity to fill this regional gap in the market.
- In December 2020, the Qatar Free Zones Authority (QFZA) signed a multilateral framework agreement between

Figure 2 - Chinese Exports by Sector in 2020[2]



China's bus-making giant Yutong and the public transport company Mowasalat to collaborate on multiple projects.
    - The agreement outlined a record order worth USD 276M for Yutong to supply over 1,000 electric buses, including more than 740 electric buses, as part of Qatar's initiative to ensure that 25% of its public bus network is powered by electricity during the FIFA 2022 World Cup. The country also intends to electrify its entire fleet by 2030.
    - Additionally, the agreement provides the groundwork for establishing an assembly factory at QFZA to support the country's electric mobility industry.
        - We expect a local manufacturing firm in Qatar to provide a strong foundation for the country's new electric vehicle industry, while also encouraging a cluster of other Chinese companies to enter the market.
- In March, China's Yinlong Energy signed an agreement with the UAE's Emirates Global Motor Electric and Al Fahim Group to roll out environmentally friendly electric buses.
    - The buses, powered by fast-charging lithium-titanate-oxide (LTO) batteries, were launched in Abu Dhabi and are expected to be available in other GCC countries in the next two years.
- Medium- and heavy-duty NEVs remain the focus for Chinese automakers in the region. However, as regional governments seek to localise production technologies and to attract foreign investments, Chinese companies have started to take notice of the market demand for light-duty NEVs.
    - From 2010-19, China exported less than 1% of its light-duty electric vehicles, a much smaller figure compared with other major markets.
    - For example, South Korea exported 74% of its light-duty electric vehicles (204K vehicles) in the same period and Japan exported 66% (451K vehicles).
- Despite this, Chinese automakers have been innovative in their market entry strategies, mainly by building production plants throughout the MENA region.
    - In June 2020, Egypt's state-owned El Nasr Automotive Manufacturing Company signed an agreement with China's Dongfeng Motor Corporation to produce light-duty electric vehicles for the first time in the country's history.
- Considering that Chinese companies lead the medium- and heavy-duty NEV export market, particularly with new energy buses, and that the MENA region is keen to accelerate its green transition, we expect China to grow its light-duty NEV market in the region as well.
    - This is an exciting opportunity for both the MENA region and for China's vehicle manufacturing industries seeking to grow their international competitiveness.

[2] Arabia Monitor; The Heritage Foundation.

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