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The Gulf States, China, and Central Asia's Green Energy Sector

Interactions Patterns, Geopolitical Dynamics, and Implications for the EU and Germany

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Central Asian economies, particularly Kazakhstan and Uzbekistan, are pursuing increasingly ambitious goals for renewable energy. Apart from China – an established player in the market – it has increasingly been Gulf countries that have been implementing respective projects, particularly Saudi Arabia and, to a lesser extent, the United Arab Emirates (UAE). Both China and Gulf countries seem to have found a cooperative approach that is based on sharing the Central Asian market along the value chain. This approach could be a blueprint for future Gulf-China relations, which have become relevant for global politics. Simultaneously, the dynamics also exemplify the growing number of energy and geopolitical dynamics over which Europe has little influence. For the European Union (EU) and Germany, the developments serve as a reminder: While intra-Asian dynamics are gaining importance, Germany and the EU risk being marginalised in matters concerning energy, climate, and geopolitics – and not just in Central Asia. In response, a more consistent Central Asia strategy is required, alongside a constructive and non-ideological approach towards relations with the Arab Gulf States.

Greater Asia – a region ranging from the Arab Gulf States to Japan, and from Russia to Australia – is characterised by new intra- and transregional dynamics in which energy and climate policy play a central role. A striking example is the current investment landscape in the Central Asian nations of Kazakhstan and Uzbekistan. Here, China and, above all, Saudi Arabia and the UAE have committed to expanding renewable energy and increasingly dominate this sector.

The triangular relationship between Gulf actors, China, and Central Asian countries

is evolving within a geopolitically complex environment. Traditionally, Russia has played a significant role in Central Asia's energy policy and is striving to defend its substantial influence – particularly in the fossil energy sector and regional energy infrastructure – against external actors, most notably China. Other relevant actors in Central Asia include Türkiye and Iran, especially in the security sector. Strengthened ties between the Gulf States, China, and Central Asian countries could, therefore, have repercussions for the broader region.



Moreover, how the Gulf States and China (inter-)act in Central Asia could also influence their bilateral relations significantly. This dynamic hints at how the two emerging players might interact and how their increasingly significant relations could unfold in the long run. So far, their engagement in Central Asia has been mostly collaborative, best exemplified by initial joint projects. For instance, ACWA Power – Saudi Arabia’s national champion for power generation, desalination, and hydrogen production – is implementing a major Uzbek project designed by PowerChina within the context of China’s Belt and Road Initiative. This follows investments by the Chinese Silk Road Fund, which has held a 49 per cent stake in ACWA Power Renewable Energy Holding since 2019. How this transregional relationship develops will depend, not least, on whether coexistence evolves into cooperation or conflict in the long term, with Central Asia serving as a testing ground.

Central Asia’s energy transition: Aspirations and constraints

Given the scarcity of water in Central Asia, the region is highly vulnerable to the impacts of climate change. This makes ramping up renewable energy a straightforward step. Additionally, the desire for economic and political diversification as well as energy security plays a key role. Kazakhstan, for example, plans to source 35 per cent of its electricity from renewable energy (including hydropower) by 2035, amounting to an estimated 12 to 16 GW. Currently, the share stands at 14 per cent. Leading the change are entities such as Samruk-Kazyna, the Kazakh Investment Development Fund, and the Ministry of Energy.

Uzbekistan, on the other hand, aims to increase the share of solar and wind energy in its electricity generation to 40 per cent (approximately 27 GW) by 2030, up from 15 per cent in 2023. Key players here include the local joint-stock company National Electric Grid of Uzbekistan and the Ministry of Investments. In 2018, Kazakhstan intro-

duced auctions for construction and operating rights for new power plants using renewable energy. Since 2019, Uzbekistan has promoted collaboration on renewable energy projects through public–private partnerships, employing both direct negotiations and open tenders. Both countries also offer tax exemptions and subsidies for renewable energy, although incentives for fossil fuels persist.

The primary driver of this green push is local energy deficits. Despite considerable conventional energy reserves, Kazakhstan faces the challenge of expanding gas processing and electricity-generation capacity to keep pace with rapid population growth. Meanwhile, Uzbekistan is grappling with declining gas production. In response, Russia has actively sought to expand its gas exports to the region. However, Central Asian countries are increasingly aiming to avoid overdependence on individual states – a concern heightened by Russia’s war against Ukraine, which has sparked regional fears regarding energy security. The expansion of green energy thus also aligns with regional goals for diversification.

Nevertheless, Kazakhstan and Uzbekistan lack the capital, expertise, and industrial capacity to achieve these ambitions independently. Although China’s dominant role in the sector has fostered some progress, it has also created dependencies. The growing engagement of the Gulf States provides an opportunity for them to strengthen their leverage against larger neighbours and strive for a balance of power among a growing number of actors.

The Gulf States and China: Bilateral dynamics and interaction in Central Asia

Growing interdependence

Beyond Central Asia, relations between the Gulf States and China have steadily deepened, sometimes evolving into mutual dependency. China is the largest purchaser of Gulf oil and gas exports, with the Gulf

States showing barely any plans to mitigate associated risks. Moreover, China has quietly made significant investments in the Gulf States. It is now responsible for the majority of new investments in certain Gulf industry clusters, effectively becoming a shareholder in the region's industrial development. China is also involved in renewable energy projects in the Gulf, including hydrogen initiatives. Beijing's choice of Saudi Arabia as the market for its recently issued US dollar-denominated government bonds underscores the intensifying collaboration between the two nations.

For their part, the Gulf States have become pivotal to China's growing diplomatic ambitions. In Iraq, Beijing has made multiple attempts at diplomatic intervention, albeit with limited success. Although China's role in mediating the rapprochement between Saudi Arabia and Iran in early 2023 should not be overstated – Oman and Iraq were the main brokers – the actors deliberately chose China as a diplomatically neutral venue. Few countries possess comparable influence while maintaining an appearance of impartiality.

Despite its limited foreign policy capacities, China is perceived by the Gulf States as a neutral, pragmatic, and constructive actor. For Beijing, the Gulf represents a significant opportunity to expand its economic and diplomatic capabilities. The Gulf States, in turn, see deeper relations with China as a means to better position themselves within the emerging multipolar order. Notably, China played a critical role in inviting Saudi Arabia and the UAE to join the BRICS group.

Nonetheless, the current model of economic cooperation could face limitations in the medium term. Socioeconomic factors are prompting the Gulf States to seek greater value creation, particularly to generate employment and expand soft power. Currently, the Gulf States are focusing on financing, project development, and technology provision in the renewable energy sector; however, their manufacturing capabilities, such as for solar modules, are minimal. Nonetheless, efforts are underway to change this; for instance, Saudi Arabia has begun devel-

oping domestic manufacturing capacities for electric vehicles, despite questionable economic viability.

China traditionally dominates the manufacturing sector, which could lead to conflicts over the control of value chains if the Gulf States expand their influence. This could also intensify competition for regions rich in critical resources. As a result, it remains unclear whether the current model of economic division will endure or whether China will react to the Gulf States' aspirations. Tensions could even extend beyond energy-related industries, particularly if the Gulf States target sectors traditionally dominated by China or enter new manufacturing markets. Such ambivalent dynamics are already evident in the green energy sector in Central Asia.

Motives and interaction patterns in Central Asia

Alongside Russia, China is one of the most significant energy players in Central Asia, particularly in the fossil energy sector and energy infrastructure. In recent years, China has increasingly engaged in renewable energy value chains, aligning with the preferences of local governments, particularly in Kazakhstan and Uzbekistan. A bilateral framework agreement with Kazakhstan, established in 2015, facilitated the entry of Chinese companies into the market. Starting in 2019, Chinese firms gained access to Uzbekistan's renewable energy market through successful bids in public tenders. However, direct cooperation on renewable energy projects only began in 2021, when renewable energy became the subject of the two countries' first green diplomatic agenda. Based on their decade-long strategic partnership, the two nations signed a cooperation agreement in 2023, solidifying China's involvement in Uzbekistan's renewable energy sector.

China's increasing engagement in both countries reflects a shift in its investment strategy, moving away from purely loan-based financing towards equity investments. This change addresses criticisms of China's

“debt-trap diplomacy” while responding to growing credit default risks and Beijing’s more conservative lending policies.

Over the past decade, the Gulf States have undergone a similar strategic transformation, focusing on developing new economic sectors and enhancing their soft power. Their economic diversification efforts are driven by two primary factors. First, there is a desire to position themselves as emerging middle powers with broader ambitions and a more prominent role in international political and diplomatic affairs. Second, demographic changes – particularly the rapid growth of the youth population entering the labour market – are challenging traditional business models in some Gulf States. Rising youth unemployment has created an urgent need for job creation, which requires exploring new sectors and finding innovative entry points into value chains.

To achieve these goals, Gulf States are relying heavily on public funding, primarily sourced from sovereign wealth funds. These funds are used to strategically invest in foreign companies or to foster and establish national champions, which are not only intended to serve domestic markets, but also designed to compete in international markets. Although these efforts are mainly economically and financially motivated, soft power remains a welcome side effect in most industries.

Saudi Arabia, and to a lesser extent the UAE, have established a significant presence in the region as latecomers, particularly in Uzbekistan. This development is partly facilitated by cultural proximity (whereas Kazakhstan has historically maintained closer ties with China). Since 2022, regular meetings have been held between the Gulf Cooperation Council and the five Central Asian states to strengthen political and strategic relations.

Overall, the alignment of governance models between China, the Gulf States, and Central Asia serves as a key link to foster cooperation.

Economic actors and initial joint projects

In line with their converging approaches and interests, the first trilateral projects are beginning to take shape. The Saudi company ACWA Power, now one of the world’s largest developers of renewable energy infrastructure, plays a critical role in the region, creating synergies with China. These synergies are particularly evident in wind energy projects, often developed in collaboration with Chinese companies and financiers such as the China-initiated Asian Infrastructure Investment Bank, the Bank of China, the Silk Road Fund, and China Southern Power Grid International. These entities serve either as direct financiers or as stakeholders in special-purpose holdings established by ACWA for specific projects, such as the planned wind farms in Dzhan-keldy and Bash in Uzbekistan.

Companies from the UAE, such as AMEA Power and Masdar (both in solar energy), as well as Abu Dhabi National Energy Company PJSC (TAQA) and Visor International DMCC (both in wind energy), have initially been involved in constructing facilities with capacities ranging from tens to low hundreds of megawatts in Central Asia. Over the past three years, this trend has accelerated significantly. These companies often operate independently or in partnership with local ministries. An example is Masdar’s roadmap agreement to build a wind farm in Kazakhstan’s Jambyl Region.

In some cases, Gulf States have secured contracts with competitive bids, outcompeting China. Nevertheless, China remains involved in most projects – either as a project developer; a contractor for engineering, procurement, and construction (e.g. in Uzbekistan’s first green hydrogen project); as a supplier; or through direct negotiations or stakes in Gulf companies.

Chinese and Gulf companies share several characteristics: They are national champions building their project portfolios in their home markets to qualify for global competition; they are state-backed; and, particularly for China, their guiding prin-

ciple is to expand along the value chain (from supplier and contractor to developer). For the Gulf States, the appeal of Central Asia lies in the relative ease and speed of project implementation, enabled by the typically “top-down” governance systems in both regions.

Potential for geopolitical shifts in the region

The expansion of the current cooperation model to unconventional energy and climate technologies – such as hydrogen or carbon capture and storage – appears likely. However, it remains uncertain whether the relationships between China, Saudi Arabia/the UAE, and Kazakhstan/Uzbekistan (or beyond) will evolve into deeper trilateral partnerships. Although forums exist to enhance collaboration, interactions remain largely bilateral for now. Kazakhstan and Uzbekistan would be the primary beneficiaries of trilateralisation, as it could help them reduce dependence on Russia and mitigate asymmetries in their green energy relations with China. For other parties, it remains unclear whether expanding ad hoc cooperation into a more comprehensive partnership would yield advantages. Medium- to long-term geopolitical tensions could emerge.

China has strengthened its position in the region using historical ties and has significantly expanded its influence. Meanwhile, Moscow must watch from the sidelines due to its growing dependence on Beijing. While China primarily maintains bilateral relations with the region, it has also established multilateral forums such as the “China plus Central Asia” format to better coordinate its regional policies. Additionally, it uses platforms such as the Shanghai Cooperation Organisation to continually adjust its relations with Russia within the region. The division of labour between Russia and China in Central Asia persists, facilitated by China’s economic dominance.

The weakening of Russia’s influence in Central Asia and China’s growing presence

have so far developed gradually rather than disruptively, making sudden changes or abrupt reactions unlikely. However, the emergence of the Gulf States as new players represents a significant shift. Their current focus is limited to a specific techno-economic niche, particularly renewable energy. This narrow focus has allowed them to establish a presence in the region without provoking notable conflicts or reactions from competitors. Other regional powers, such as Iran, Russia, and Türkiye, are largely unable to compete with the Gulf States in the renewable energy sector, or with China.

In the medium term, however, stronger competition with regional powers such as Türkiye, Iran, and Russia could arise if the Gulf States expand their influence to other economic sectors or security issues. These powers might view the Gulf States as rivals, prompting corresponding responses that could destabilise the region. Although the Gulf States have strategically built relationships with these actors to avoid hostilities – such as the UAE’s strengthened economic and security cooperation with Moscow, and Saudi Arabia’s diplomatic overtures to Türkiye, despite domestic anti-Arab sentiment – directly hostile measures such as sanctions or price wars in the oil and gas sector seem unlikely in the short term.

In the long term, however, increased Saudi or Emirati engagement in the region would require costly diplomatic hedging to prevent tensions. Gulf States must carefully assess whether the benefits of expanding their role in Central Asia beyond their current techno-economic focus justify the potential costs.

China faces similar considerations. On the one hand, it is expected to continue strengthening its presence in the region, particularly in the area of green technologies for the future, whereas other regional powers, including Russia, are unlikely to follow suit. On the other hand, renewable energy is a strategic sector crucial to Central Asia’s future. New regional energy systems, industries, and economic and energy spaces are already beginning to take shape, creating new relationships and dependencies.

Implications and recommendations for the EU and Germany

The emergence of joint renewable energy projects between Central Asia, the Gulf, and China are an early signal of multilateral cooperation. It remains unclear to what extent these economic structures will also manifest in geopolitical or even security-related dynamics in the medium term. Regardless, this mode of interaction could be a blueprint for the increasingly significant relations between the Gulf States and China on a global scale, making it highly relevant in foreign and geopolitical terms. Moreover, it constitutes another example of intra-Asian interconnectedness that is evolving beyond the reach of the EU and Germany. This has far-reaching implications for Europe that extend beyond the energy sector or Central Asia.

A new strategic understanding of the complex network of relationships emerging across Greater Asia is essential to ensure Europe's relevance in the long term. With regard to the evolving joint investments between China, the Gulf States, and Central Asia, specific action is needed on both fronts: The EU and Germany must both implement their Central Asia policy more decisively while recalibrating bilateral relations with the Gulf States.

Central Asia policy: New models and more realism

Both Germany and the EU have emphasised the strategic importance of deepening relations with Central Asian countries since Russia's war against Ukraine began. Energy- and climate-related issues are particularly relevant, as the EU seeks to reduce dependence on fossil fuels while simultaneously expanding renewable energy sources. Additionally, efforts are focussed on developing alternative third markets to establish resilient (green) value chains and export opportunities independent of China.

However, these efforts have yielded limited success so far. Even in projects related to renewable energy and associated indus-

tries, it has been the Gulf States and China that have recently tended to dominate both the sector and broader power structures.

Although financial efforts were the primary driver of stronger ties between Central Asian countries, the Arabian Gulf, and China, this development has not occurred in a political vacuum. Europe's historically hesitant and mechanism-driven approach to the region – combined with a post-Ukraine war Russia policy focused on decoupling and sanctions – has altered the geography of continental trade. This shift has further incentivised Central Asia's orientation towards Asia and other regions beyond the EU.

Despite this, Central Asia and the EU share increasingly aligned interests, particularly in energy and climate policy. Yet, rather than translating this into a coherent political-strategic approach, the EU continues to tie its engagement in the region to normative and transformative expectations. This includes conditions such as human rights, civil society development, systemic political transformation, and (at times premature) climate policy initiatives, as well as unrealistic demands such as decoupling from Russia and distancing from China.

Germany and Europe should therefore develop a more consistent Central Asia strategy that prioritises energy and climate policy, not only in rhetoric but also in practical action. Instruments should be aligned with goals, and these goals should be grounded in reality.

Germany and the EU face a critical choice in Central Asia: adopt a cautious approach or expand their energy and geostrategic engagement. This decision will require rethinking the orientation of their investment activities: Should the focus remain on small, low-risk projects, or shift towards larger, long-term initiatives? If current policies are continued without leveraging existing opportunities, the EU and Germany risk not only losing market share in the green energy sector, but also incurring long-term geostrategic costs. These may include further diminished influence in Central Asia and missed opportunities to shape the region's energy and climate transforma-

tion in ways that align with Germany's interests.

Strengthening relations with Central Asia might require integrating the region and its dynamics into a comprehensive strategy that accounts for its growing trans-regional connections. In the energy and climate sectors, this could include participating in consortia with other regional players. Even if German and European companies cannot compete against other suppliers on price, they could collaborate with Gulf actors on smaller-scale projects in Central Asia, particularly those requiring specialised technology. However, this requires a willingness to compromise and communicate — not only with governments but also with other relevant stakeholders, especially companies. Institutions such as the European Bank for Reconstruction and Development and French companies are already involved in several projects and could serve as valuable channels for Germany.

Gulf States policy: Representing interests, building partnerships

With the Gulf States expanding their presence in Central Asia, it is important to reevaluate and recalibrate relations with them. Despite differences, shared interests do exist, even in climate policy — for instance, the development of green value chains independent of China.

Yet even beyond Central Asia, the Gulf States are significant global actors, sharing more common interests with Europe than other global players. They play a “swing” role in limiting Chinese power projection in the Middle East and, ultimately, Europe. China's growing influence in the Gulf is also linked to Europe's declining presence in Eurasia and Asia. China could use the Gulf States as vehicles to project its interests into Europe, including through a strengthened BRICS group. A more constructive and strategic approach to the Gulf States would thus better serve German and European interests.

Of course, Germany and the EU should consistently articulate, emphasise, and assert their own interests in their dealings with the Gulf States, both geopolitically and economically. The current trend in foreign policy to elevate certain Arab countries to virtually unconditional partners should by no means be continued, let alone intensified. However, a partnership-based, non-ideological relationship on equal footing with all Gulf actors should be pursued.

The Gulf States have not abandoned their traditional preference for Europe as a partner. Economically and diplomatically, Europe is still associated with stability, strength, and strategic competence. However, this foundation is eroding, as also reflected in a shift in energy cooperation towards Korea and Japan; Europe's declining influence in conflict zones such as Yemen, Syria, and Sudan; and increasing alignment with China.

To counteract this, the EU's Gulf State policy should aim at healing the diplomatic wounds of recent years and fulfil core commitments, such as the numerous declarations of intent made in the context of the hydrogen economy and the EU's “Strategic Partnership with the Gulf”, adopted in 2022. Collaborations in other areas, such as a raw materials partnership with Saudi Arabia, are vital “win-win” instruments that can strengthen European influence while enhancing economic and energy resilience. These efforts can simultaneously limit the influence of actors such as Russia and China.

Ultimately, strengthening bilateral relations between the EU, Germany, and the Gulf States could open avenues for energy cooperation in Central Asia, allowing for a more consistent and effective policy for the region. Both approaches could enable the EU and Germany to play a more active role in shaping the complex geo-economic and geopolitical balance in the broader region while more effectively pursuing their energy, climate, and geopolitical objectives.



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