

The Geopolitics of Renewable Energy in Kazakhstan

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“Kazakhstan, despite its huge hydrocarbon reserves, will actively switch to renewable energy sources. This goal is set in our Strategy-2050 and the Concept of changing for a ‘green economy.’ By 2050, Kazakhstan can produce half of the total electricity through renewable sources.”

President Nursultan Nazarbayev opened the EXPO 2017 Astana with this optimistic vision for Kazakhstan’s transition to a renewable energy future.¹ Kazakhstan’s “National Concept for Transition to a Green Economy,” which he references, outlined a goal to move Kazakhstan from under 1 percent renewable energy sourcing when it was adopted in 2013

to 3 percent by 2020, 30 percent by 2030, and 50 percent by 2050. In a country where approximately 87 percent of electricity is generated by hydrocarbon-powered plants (75 percent of the total being coal-fired stations and 12 percent gas-fired plants) and the remainder comes from hydroelectric power stations, these numbers are flashy, clean, and counter-intuitive: just the thing to catch the attention of foreign investors.

The directed messaging of reframing Kazakhstan as a leader in “future energy,” exemplified by the news surrounding EXPO 2017, is easily consumable by foreign audiences—especially those

with money to invest in the energy sector. The goal of attracting outside investment goes a long way toward explaining Kazakhstan’s iconic event, but many other actors are also involved in the growing prominence of alternative energy initiatives. Heavily concentrated in the solar sector, renewable energy development in Kazakhstan has received extensive support from the European Bank for Reconstruction and Development (EBRD). A growing number of foreign firms have also arrived on the scene, including from China, India, and the Gulf states, typically partnering with Kazakhstan’s energy giants and receiving special financing from backers like the global Clean Technology Fund and Kazakhstan’s Samruk-Kazyna Invest. Central Asian states like Kazakhstan are often portrayed as falling into the “sphere of influence” of a larger country, but the alternative energy scene tells a markedly different story: the geopolitics of renewables is not about mutually exclusive zones, but a dense and diverse overlay of international and bilateral connections, funds, and agendas—ecologically-oriented and otherwise.

The EBRD and “Green Energy” in Kazakhstan

Environmental politics in Kazakhstan is largely a top-down affair. This has led to a great deal of foreign skepticism about the country’s recent focus on renewable energy (prominently broadcast at the EXPO 2017), as clearly illustrated by a recent article in *The Diplomat*: “The real future of green energy in Kazakhstan: Given the dominance of conventional energy resources, are Astana’s green energy reforms merely publicity stunts?”² The title is telling: like many other Western observers, the author, Andres Fernandez, concludes that despite the government’s ambitious rhetoric, the “viability of such projects is limited, indicating a more immediate motive of projecting the image of a forward-looking Kazakhstan before Western audiences.” While promoting the image of modernity is no doubt a crucial part of the story, just as it is with all actors who “greenwash” the image of their company, state, or person, this simplistic critique is insufficient.

To better understand the geopolitics of renewables in Kazakhstan, it is essential to begin with the practical challenges that the country’s energy infrastructure presents. In a recent study on barriers to renewable energy adoption in Kazakhstan, the authors present a formidable set of challenges:

non-renewable energy production priorities; high technical losses; the current state of the existing electricity infrastructure; long-distance transmission and its associated losses; a lack of infrastructure for new energy technologies (e.g. low

availability of energy storage systems); top-down management structures within energy sector; the economic cost of electricity production and tariff systems; competition and corruption; high capital investment costs; local knowledge; skill shortages (for design and development, manufacturing, installation, operation and maintenance) and research & development support; poverty and low household affordability.³

This litany of issues underscores the need for actors not only with highly specialized skillsets, but also with a big enough stake in the game to make it worth their time, energy, and resources. Three primary groups of stakeholders are worth highlighting: domestic political and economic elites, foreign corporate actors, and international organizations. As the dynamics in Kazakhstan illustrate, these are not separate or competing actors, but are actively working together to pursue strategic ends that are producing some important changes to the country’s energy landscape.

One of the first actors to become involved in promoting renewable energy in Kazakhstan was the United Nations Development Programme (UNDP), which initiated some small-scale projects in the 1990s. Today, however, the most important actor in fostering the country’s renewable energy transformation is the European Bank for Reconstruction and Development (EBRD)—both on the bank’s own account⁴ and objectively. Beginning in 2008 with the signing of a “Sustainable Energy Action Plan” to outline various joint actions, the EBRD worked with Kazakhstan’s government to introduce its first legal framework, the Law on the Use of Renewable Sources of

Energy, in 2009. The law was quickly judged to be insufficient because it lacked a regulatory component and a feed-in tariff system. Without this, renewable energy producers could not realistically be expected to compete with traditional fuel suppliers, who have long been aided by artificially low electricity prices created by generous state subsidies.⁵ This has been a major deterrent to developing renewable energy infrastructure (as has currency instability, a point discussed below). With legislative support from the EBRD, Kazakhstan introduced a new tariff system in 2013 that guarantees a competitive environment for renewable energy producers for 15 years. In addition to exempting renewable energy producers from electricity transportation costs, the law established the “Cost Clearing and Settlement Centre,” which centralizes the purchase and sale of renewable energy generated by renewable energy facilities.

The EBRD has also provided the lion’s share of financing for most of Kazakhstan’s large-scale renewable energy projects. These include the country’s first large-scale wind power project, Yereymentau, in northern Kazakhstan, which was supported by a \$70 million loan in 2014, of which \$21 million was contributed by the Clean Technology Fund (CTF),⁶ an investment fund that supports developing states in their efforts “to scale up low carbon technologies with significant potential for long-term greenhouse gas emissions savings.” The EBRD has also partnered with the CTF to support two major solar projects in Zhambyl in southern Kazakhstan, Bur-

noye Solar-1 and Burnoye Solar-2 (50 MW each), including an \$80 million loan in 2015 and a \$44.5 million one in 2017.⁷ Financing for these projects has also come from Samruk-Kazyna Invest,⁸ an investment arm of Kazakhstan's sovereign wealth fund, and United Green,⁹ a private British strategic investment group. The loans have been guaranteed by Samruk Energy,¹⁰ Kazakhstan's national energy company, which, according to the ERDB, sees these solar initiatives as a way to diversify its portfolio.

A diverse portfolio is also of interest to Kazakhstan's energy decision-makers, not just in terms of sourcing, but also in terms of international investment. Political leaders emphasize the potential of renewable energy projects to attract FDI and consistently highlight the (potential and real) involvement of foreign firms. "A number of domestic and foreign companies, including ACWA Power (the Kingdom of Saudi Arabia), Sky Power (Canada), Shell, General Electric (the USA) and Goldwind (China) expressed their desire to participate in the auction," proclaimed a government statement quoted in the trade journal *PV-Magazine* regarding a 2018 renewables auction.¹¹ Luring potential investors to Kazakhstan's renewable energy sector is a goal in itself for political and financial elites, but they also clearly hope that these high-profile "green economy" projects will generate a broader FDI ripple effect.

Notably, the EBRD has also proven instrumental in catalyzing foreign involvement. In May 2018, a

major Chinese solar panel manufacturer, Risen Energy, signed a mandate letter for a 63MW solar project in Kazakhstan—making it the second of the company's projects to receive funding from the EBRD (the other was 40MW). According to a recent report from the Dutch Embassy in Kazakhstan on the country's energy industry, the EBRD's backing is said to be key to supporting Risen Energy in entering the Kazakh solar market.¹² Says Zhang Jieling, the company's director of project finance and investment:

The partnership with EBRD opens a new chapter for Risen Energy's international project financing plan as it represents both a qualitative leap for and a significant step in the company's international expansion strategy. Ties with international multilateral organizations such as EBRD provide the company with a valuable opportunity to enhance its competence in and strategy for the development, financing and technology services of international projects.

While Risen Energy will be the first Chinese solar company to work in Kazakhstan, the EBRD has previously promoted the involvement of other foreign solar companies, including by granting a \$26m solar loan¹³ to the Indian company ACME Cleantech Solutions¹⁴ in 2016.

Gulf Energy Connections?

The scope of investment from a wide array of Chinese and Indian companies, state-backed and otherwise, has understandably caught the attention of many observers of Central Asia—especially with respect to energy politics. By contrast, connections between the post-Soviet states and the Gulf states of the Arabian Penin-

sula have received little scrutiny to date, despite proliferating rapidly, including in the renewable energy sector. As with the other renewable energy projects in Kazakhstan, these have centered on the solar power industry.

Kazatomprom,¹⁵ one of the world's leading uranium producers, has become active in this sector as it seeks to "green" its image. This was made especially clear by the press commentary surrounding an agreement with Qatar Solar Energy (QSE) signed by Azat Betekbaev, then-Chairman of Kazatomprom's solar division. The 2014 agreement,¹⁶ and a subsequent one in October 2015 that reportedly made Kazatomprom a "strategic shareholder" of QSE,¹⁷ essentially agreed that Kazakhstan would supply silicon for solar modules to be manufactured in Qatar.

Based on the available news and the status of its website, however, Qatar Solar Energy now appears to be defunct, leading to the abandonment of its promised deals with Kazatomprom.¹⁸ Likely backed by a wealthy businessman and/or member of the royal family who simply lost interest in financing it, this supply agreement may have done little to truly advance Kazakhstan's solar industry. Yet the publicity suggests an important confluence here: it is not just Kazatomprom that is interested in greening its image, but also its Qatari counterparts. At the Astana press conference announcing the 2014 agreement, QSE's CEO, Salim Abbassi, underscored the company's progressive mission: "to deliver on the promise of low cost and af-

fordable renewable energy for populations across the world. [...] By lowering costs and increasing efficiency, QSE is accelerating the democratization of renewable energy worldwide.”¹⁹ Qatar’s solar industry has received extensive support from the Qatar Foundation,²⁰ a parastatal development fund designed to be an “engine” that uses revenues from the country’s “substantial hydrocarbon resources to transform itself into a modern knowledge-based economy.”

The language of promoting a “knowledge-based economy” is likewise a staple of development rhetoric in Kazakhstan. Responding to President Nazarbayev’s “State of the Nation” address in 2014, the then-director of the Institute of Economics of the Ministry of Education and Science of Kazakhstan wrote in an *Astana Times* opinion piece:

The creation of a knowledge-based economy, as the President said, rests primarily on the improvement of science in Kazakhstan. Over the next 10-15 years, we must create a knowledge-intensive economic base, without which we cannot stand on par with and compete with developed countries. This will require improvement of our legislation on financing, intellectual property protection and support for research and innovations, as well as the commercialisation of scientific research.²¹

Promoting renewable energy meshes well with the goal of being on the scientific “cutting edge,” which is a major focus of efforts to foster a knowledge-based economy. Thus, while developments in the solar sector and other “green economy” arenas are still quite limited, deals like the one between Kazatom-

prom and Qatar Solar Energy are a convenient platform for political and economic leaders in both countries to unite their narratives about sustainability and align their economic interests with dominant national and international frames about promoting modern, “green” futures.

A Future for “Future Energy” in Kazakhstan?

Renewables should not be dismissed as features of the reconfiguration of regional energy geopolitics, either in Central Asia or in the Arabian Peninsula. The progressive image of renewable energy is significant insofar as it enables actors in Kazakhstan and elsewhere to narrate a particular vision of modernity and set the terms for future engagement, even if—or perhaps precisely *because*—it allows them to uphold existing political economies. Yet given the growing prominence of renewable energy in international networks of finance, prestige, and politics, rhetoric about renewables is unlikely to remain separate from action. Rooted as the current push toward sustainability and green economic development is in an economy of prestige, “winning” also entails substantial financial rewards.

Traditional energy-sector leaders and international financiers like the ERDB, Clean Technology Fund, and United Green all benefit from the progressive image of advancing renewable energy in Kazakhstan. Foreign companies are earning profits and gaining a local foothold in challenging settings. Political leaders also benefit to the extent that they can

demonstrate their support for and ability to realize the grand vision for “future energy” articulated in the official rhetoric around EXPO 2017.

Even at the very top, a leader like President Nazarbayev can feel pride—just as Kazakhstan’s citizens might—in his carefully-curated “legacy” and in advancing the country’s modern image on the world stage. Large sums of money change hands in all these cases, albeit more transparently in some cases than others. Wherever funds flow, it is clear that the geopolitics of renewables in Kazakhstan is about not mutually exclusive “spheres of influence,” but a dense interplay of international and bilateral connections, funds, and agendas—all of which are, if only incrementally, introducing “future energy” to Central Asia.

¹ Learn more about EXPO 2017 by visiting the EXPO's website, <https://expo2017astana.com/en/>.

² Andres Fernandez, "The Real Future of Green Energy in Kazakhstan: Given the Dominance of Conventional Energy Resources, Are Astana's Green Energy Reforms Merely Publicity Stunts?" *The Diplomat*, January 12, 2018, <https://thediplomat.com/2018/01/the-real-future-of-green-energy-in-kazakhstan/>.

³ Marat Karatayev, Stephen Hall, Yelena Kalyuzhnova, and Michele L. Clarke, "Renewable Energy Technology Uptake in Kazakhstan: Policy Drivers and Barriers in a Transitional Economy," *Renewable and Sustainable Energy Reviews* 66 (2016): 120-136.

⁴ "Green Economy Transition: Renewable Energy in Kazakhstan," European Bank for Reconstruction and Development/Climate Investment Funds, n.d., <https://www.ebrd.com/documents/ict/renewable-energy-in-kazakhstan.pdf>.

⁵ Eric Wheeler, "Kazakhstan's Renewable Energy Quest," *The Diplomat*, May 2, 2017, <https://thediplomat.com/2017/05/kazakhstans-renewable-energy-quest/>.

⁶ See its website, <https://www.climateinvestmentfunds.org/topics/clean-technologies>.

⁷ Emiliano Bellini, "EBRD and CTF Provide \$44.5 Million for Solar Park in Kazakhstan," *PV Magazine*, June 14, 2017, <https://www.pv-magazine.com/2017/06/14/ebird-and-ctf-provide-44-5-million-for-solar-park-in-kazakhstan/>.

⁸ See its website, <https://www.skinvest.kz/en/>.

⁹ See its website, <http://unitedgreen.com>.

¹⁰ See its website, <https://www.samruk-energy.kz/en/>.

¹¹ Emiliano Bellini, "Kazakhstan: 1 GW Solar, Renewables Auction; First Bidding Round Planned for May," *PV Magazine*, January 26, 2018, <https://www.pv-magazine.com/2018/01/26/kazakhstan-1-gw-solar-renewables-auction-first-bid->

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¹² "Special Energy Issue on Kazakhstan," Embassy of the Kingdom of the Netherlands, May 2018, <https://www.nederlandwereldwijd.nl/binaries/nederlandwereldwijd/documenten/publicaties/2018/06/01/energy-issue-kazakhstan-may-2018/EnergyIssueMay2018.pdf>.

¹³ Ian Clover, "EBRD Plans \$26m Solar Loan for Kazakhstan," *PV Magazine*, August 19, 2016, https://www.pv-magazine.com/2016/08/19/ebird-plans-26m-solar-loan-for-kazakhstan_100025852/.

¹⁴ See their website, <https://www.acme.in>.

¹⁵ See their website, <http://www.kazatomprom.kz/en>.

¹⁶ Qatar Solar Energy, "Qatar Solar Energy Signs Landmark Agreement With Kazatomprom to Accelerate Qatar's Renewable Energy Production," *PR Newswire*, July 1, 2014, <https://www.prnewswire.com/news-releases/qatar-solar-energy-signs-landmark-agreement-with-kazatom-prom-to-accelerate-qatars-renewable-energy-production-265379701.html>.

¹⁷ "Kazakhstan to Cooperate with Qatar, Japan in Renewable Energy Sector," *Azernews*, October 29, 2015, <https://www.azernews.az/region/89225.html>.

¹⁸ See its website, <https://www.qatarsolar-energy.com>.

¹⁹ Qatar Solar Energy, "Qatar Solar Energy Signs..."

²⁰ See its website, <https://www.qf.org.qa/about/about>.

²¹ "Knowledge-Based Economy Essential to Kazakhstan's Economic Development," *The Astana Times*, August 13, 2014, <https://astanatimes.com/2014/08/knowledge-based-economy-essential-kazakhstans-economic-development/>.