

## NKOSITHANDILEB SOLAR

# Kazakhstan exports energy storage power



Standard 20ft containers



Standard 40ft containers



## Overview

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What is Kazakhstan's energy sector?

Below the global average. The energy sector accounts for roughly 85% of the country's emissions, with electricity and heat generation, contributing to over 50% of energy sector CO2 emissions. Fossil fuels dominate the energy mix, with coal constituting almost 50% of the share, whilst renewable energy accounts for only 1.6% of Kazakhstan's total energy.

What is Kazakhstan known for?

Kazakhstan is a significant producer of coal, crude oil and natural gas, and a major energy exporter. While coal dominates the country's energy mix, renewable sources of energy account for 9% of its electricity generation.

How efficient is Kazakhstan's heating system?

58% (MoE, 2021). Heating represents roughly 60% of household energy use, improving efficiency in Kazakhstan's heating network can substantially reduce household energy consumption and carbon intensity. Most buildings in Kazakhstan do not meet modern standards for energy efficiency, with an estimated 70% of buildings losing up to 30% of thermal energy.

How does Kazakhstan's Energy Transition affect the economy?

Oil and hydrogen. Although the Kazakh economy relies on fuel exports, which accounted for 15.4% of Kazakhstan's GDP in 2021, the energy transition is shaping new long-term opportunities for the export of hydrogen and critical minerals. (2015 USD) Renewable Electricity (% Total of Energy)

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Executive Summary Kazakhstan is the largest emitter of CO2 in Central Asia, with a CO2 intensity of GDP 70% higher than the global average. The energy sector accounts for ...

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4 Kazakhstan's vast and cost-efficient wind energy potential offers a particularly strong foundation for scaling up renewable energy capacity. The country could increase its ...

Kazakhstan (population 19.6 million) is Central Asia's largest economy and exhibits all the characteristics of ...

Onshore wind: Potential wind power density ( $W/m^2$ ) is shown in the seven classes used by NREL, measured at a height of 100m. The bar chart shows the distribution of the country's land area ...

Kazakhstan (population 19.6 million) is Central Asia's largest economy and exhibits all the characteristics of carbon lock-in. It is dependent on exports of oil and gas, while its ...

ASTANA - Kazakhstan's renewable energy sector demonstrated steady growth in 2024, though energy storage systems remain a key challenge, said experts during a ...

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