



UZBEKISTAN'S PATH TO A GREEN ECONOMY: RENEWABLE ENERGY SOURCES AND SDGs

Bobir Odilov^{1*}

Business School
Central Asian University, Tashkent
Uzbekistan
b.odilov@centralasian.uz

Shoirakhon Odilova²

Business School
Central Asian University, Tashkent
Uzbekistan
sh.odilova@centralasian.uz

Hojimurodova Samirakhon³

Business School
Central Asian University, Tashkent
Uzbekistan
221105@centralasian.uz

Ayubkhon Qayumkhujayev⁴

Business School
Central Asian University, Tashkent
Uzbekistan
230057@centralasian.uz

*Corresponding Author email: b.odilov@centralasian.uz

Submitted: 13 June 2025

Revised: 31 August 2025

Accepted: 10 September 2025

Peer-review under responsibility of 9th ASIA International Multidisciplinary Conference (Songkhla, Thailand) Scientific Committee

<http://connectingasia.org/scientific-committee/>

© 2025 Published by Readers Insight Publisher,

Office # 6, First Floor, A & K Plaza, Near D Watson, F-10 Markaz, Islamabad, Pakistan,

editor@readersinsight.net

This is an open access article under the CC BY license (<http://creativecommons.org/licenses/4.0/>).



ABSTRACT

This study analyzes Uzbekistan's renewable energy potential, technological advancements, investments, and challenges in its transition to a green economy, to reduce dependence on fossil fuels and achieve long-term sustainability. The research synthesizes data from various articles to provide a comprehensive overview of renewable energy in Uzbekistan. A documentary research approach integrates archival research and content analysis. Existing documents, records, and data from diverse sources are analyzed to understand Uzbekistan's energy landscape and identify key patterns related to renewable energy development. Solar energy potential is high, estimated at 51 billion tons of oil equivalent (toe), approximately 600 billion kWh annually, constituting 98.8% of total renewable resources. Wind energy potential reaches 1.8 million toe (over 1 billion kWh annually), concentrated in Navoi, Karakalpakstan, and Jizzakh. Hydropower's expansion is limited. Government initiatives and Public-Private Partnerships (PPP) have attracted foreign investment. Investment figures vary, with one source noting \$2.7 billion (2017-2025) and another indicating over \$17.7 billion from China, the UAE, the World Bank, and the ADB. Uzbekistan aims to reach 25% renewable energy by 2025 and 40% by 2030. Challenges include high initial costs, infrastructure gaps, and fossil fuel dominance. Uzbekistan's successful transition depends on enhancing policy frameworks, promoting technological innovation, and strengthening the integration of a green economy system. Addressing these barriers is essential to fully harness renewable energy potential and secure a sustainable energy future.

Keywords: *Circular Economy; Sustainability; Environmental Economics*