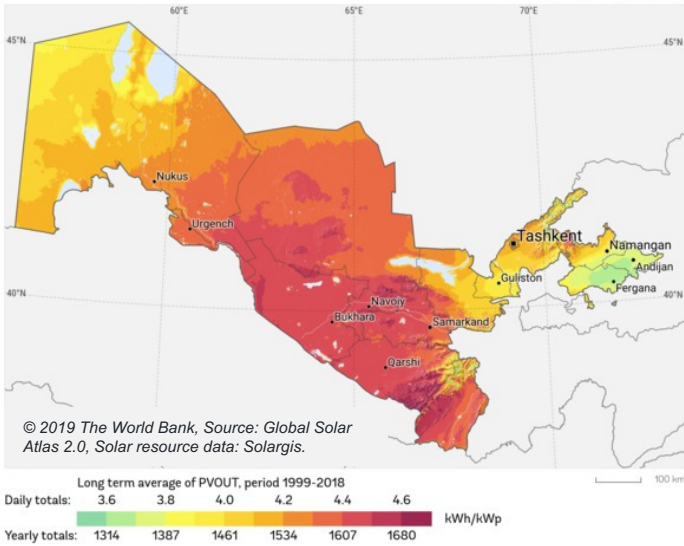


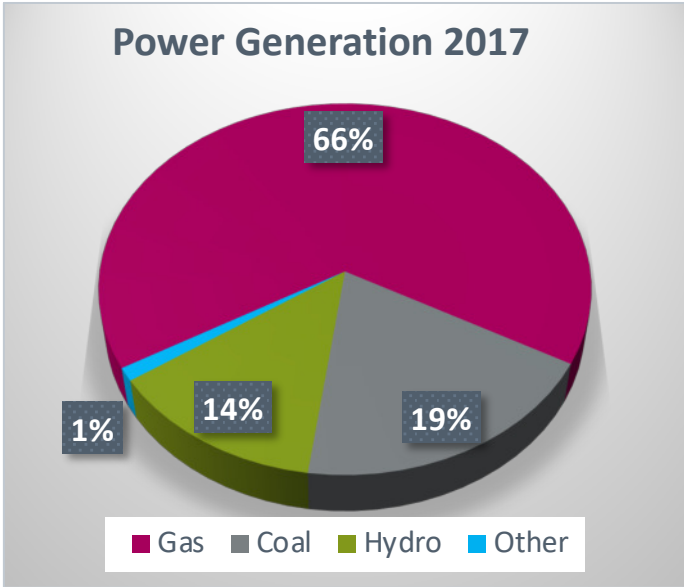
# Solar Market Brief: Uzbekistan

SOLAR RESOURCE MAP

**PHOTOVOLTAIC POWER POTENTIAL  
UZBEKISTAN**



Population (2019)	33.6 million
GDP per capita (2019)	US\$ 1,725
GDP Growth (2019)	5.5%
Inflation Rate (2019)	14.6%
Sovereign Rating	B1
FDI	US\$ 0.625 billion
Ease of Doing Business	69 of 190
Corruption Perception Index	158 of 180



Source: Energy Charter Secretariat (2018)

Generation (2017)	60.7 TWh
Consumption (2017)	48.04 TWh
Installed Capacity (2017)	14.1 GW
PV capacity (2018)	4 MW

## Country facts framework

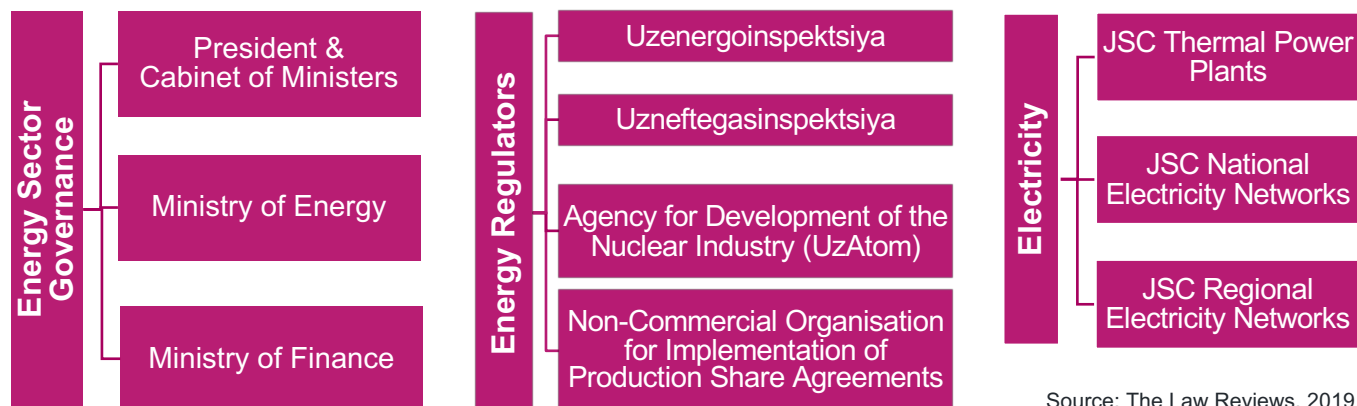
- Lower middle-income country
- Largest market in central Asia
- Largest producer and net exporter of electricity in central Asia
- Urbanisation ~50%
- Electricity access rate ~80%

## Key Electricity Market Facts

- High dependence on natural gas for electricity production (~90%)
- High transmission and distribution losses (~15%) due to outdated infrastructure
- Government is targeting 21% of Renewable Energy (RE) in the energy mix by 2031. Solar makes up 5 GW of the 8 GW planned between 2020-2030.
- Consumption has been largely stable in the last 10 years
- Electricity tariffs have been low partly because of low domestic cost of natural gas relative to international prices

# Solar Market Brief:

## Uzbekistan



Source: The Law Reviews, 2019.

- Several institutional changes have been made to promote the development of RE
- Energy Efficiency sensitisation campaign launched as part of the Law on Efficient use of Energy
- A Commission on reform of electricity industry has been established and is headed by the Deputy Minister for Energy

### Regulatory framework

- Ministry of Energy established in 2019 to organise and regulate all energy sub-industries in Uzbekistan including coordinating and licensing cooperative agreements with investors.
- The former state-owned monopoly “Uzbekenergo” was restructured in 2019 to three joint stock companies under control of the ministry of Energy.
- Renewable Energy Law was adopted in 2019 outlining;
  - strategy for implementation of RE programs including incentives for investments in solar, wind, geothermal and biomass plants, basis for state support of both the private and public sectors
  - basis for state support for both private and public sector
  - regulations for use or renewable energy resources and production of equipment to be used in the renewables sector.
- PPP Development Agency created in Dec 2018 and adopted the PPP Law (May 2019) which defines regulations for investors in the energy sector including selection, project delivery methods and access to transmission grids.
- The Law on Electricity and the Law on Efficient Use of Power Energy define rules for energy markets including obligations of grid operators and provisions for power supply contracts.
- A Law on Product Sharing Agreements which outlines the regulation of tenders is under review.
- The Ministry of Finance sets electricity tariffs according to the Regulations on Tariff Groups of Consumers of Electric and Heat energy, which covers contracts between distributors and end consumers. A tariff policy review is set to be completed by 2023 which, among others, will allow power generators to participate in the wholesale market.
- Compliance with industrial standards is enforced by Uzenergoinspektsiya; energy quality and efficiency standards by the Uzbek Agency for Standardization, Meteorology and Certification; and market regulations by the State Anti-monopoly Committee

# Solar Market Brief: Uzbekistan

## Project Financing & Investment Environment

- The government of Uzbekistan is increasingly engaging international finance organisations for RE projects, most notably the ADB, IFC, EBRD and WBG.
- RE development targets US\$ 5.3 Billion from foreign investors and US\$ 81 Million from domestic lenders by 2031
- Foreign investors may now legally acquire shares in state-owned energy companies through open tendering, subject to approval by the president and cabinet of ministers.
- Tax and customs rebates, lower interest rates for RE investments and additional benefits may be granted on a case-by-case basis.
- Contractors are obliged to insure construction projects and construction work, at their own expense.
- New foreign investments worth US\$ 5 Million or more are granted 10-year immunity to changes in tax legislation.
- Investments outside Tashkent are granted tax holidays for 3 years if the FDI exceeds US\$ 300,000; 5 years if it exceeds \$3 million; and 7 years if it exceeds \$10 million
- Support is increasing for the Build-Own-Operate method of project delivery

### Our view on the market

In an effort to improve the business environment, the new government initiated several reforms in the tax, customs, industry, privatisation and currency exchange sectors since

2016. For the energy sector, these reforms also come with the opportunity for greater divestiture from fossil fuels. Uzbekistan receives approximately 1,600 kWh/m<sup>2</sup> of solar radiation annually, which could generate an estimated amount of power equivalent to 51 billion tons of oil by the time their oil reserves are depleted. This reinforces the business case for RE investments in the country.

Between 2015 and 2020, Uzbekistan climbed from position 52 to position 69 in the *Ease of Doing Business* ranking by the World Bank. It is widely believed that reforms are taking effect. However, it should be noted that the state initiated and prioritised domestic investments while restricting foreign ownership in past years and retains strong influence over key industries such as power generation and land ownership. Foreign investors may only operate in joint ventures with local firms. These requirements may be restrictive in some aspects of business, but also beneficial in building capacity for the support that international investors may need locally.



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# Solar Market Brief: Uzbekistan

## Looking Ahead

Over recent years, cooperation between the government of Uzbekistan and international development partners such as the ADB and IFC has greatly improved and raised the investment portfolio to US\$ 8.5 billion. Several projects are planned, including 100 MW of solar in Sherabad which is financed by the ADB and the Scaling Solar program financed by the IFC. Suntrace currently supports the ADB in Uzbekistan as a Technical Advisor for feasibility study and mitigation of environmental and social impacts, tendering, prequalification, drafting of PPA and bidding documents, techno-economic optimisation and pre-engineering of a new strategic high voltage substation for the project in collaboration with MOE and NENU (via ADB). We also provide similar support to the IFC as Technical Advisor for phase 1 & 2 of the Scaling Solar program in Ethiopia.

Considering its limited history of foreign investment and non-existent sovereign rating before 2019, some risk and uncertainty persists about the PV market in Uzbekistan. However, this can be offset by growing electricity demand, a large PV potential and the envisioned reforms which could enhance stability in the long run. A long-term perspective should be considered for investments here.



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### Do you have questions?

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## References

- World Bank Population Data (accessed April 15 2020). <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=UZ>
- World Bank GDP Per Capita Data (accessed April 15 2020). <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=UZ>
- World Bank GDP Growth Data (accessed April 15 2020). <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=UZ>
- Sovereign Ratings List (accessed April 15 2020). <https://tradingeconomics.com/country-list/rating>
- Inflation Rate Data (accessed May 11 2020). <https://www.adb.org/countries/uzbekistan/economy>
- World Bank FDI Data (accessed April 15 2020). <https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=UZ>
- World Bank Doing Business 2020 (accessed April 15 2020). <https://www.doingbusiness.org/en/data/exploreeconomies/uzbekistan#>
- Transparency International Corruption Perception Index (accessed April 15 2020). <https://www.transparency.org/cpi2018>
- Solargis Solar Resource Map (accessed April 15 2020). <https://solargis.com/maps-and-gis-data/download/uzbekistan>
- U.S. Energy Information Administration World Energy Data (accessed April 17 2020) <https://www.eia.gov/international/data/world/electricity/more-electricity-data?pd=2&p=0000000000000000000000007vo7&u=1&f=A&v=mapbubble&a=-&i=none&vo=value&t=C&q=none&l=249--241&s=1451606400000&e=1483228800000&ev=false>
- Ministry of Energy of Uzbekistan. *Concept Note for Ensuring Electricity Supply In Uzbekistan In 2020-2030*. (accessed May 13 2020). <https://minenergy.uz/en/lists/view/77>
- ECS Uzbekistan's Energy Sector Data 2018 (accessed April 15 2020). [https://www.energycharter.org/fileadmin/DocumentsMedia/News/20181004\\_Uzbekistan\\_s\\_energy\\_sector.pdf](https://www.energycharter.org/fileadmin/DocumentsMedia/News/20181004_Uzbekistan_s_energy_sector.pdf)
- Global Legal Insights. *Energy Laws and Regulations: Uzbekistan*. (accessed 16 April 2020) <https://www.globallegalinsights.com/practice-areas/energy-laws-and-regulations/uzbekistan>
- The Law Reviews. (2019). *The Energy Regulation and Markets Review - Edition 8: Uzbekistan*. accessed 17 April 2020) <https://thelawreviews.co.uk/edition/the-energy-regulation-and-markets-review-edition-8/1196244/uzbekistan>
- Azernews. *Uzbekenergo to be divided into three structures*, 2019. (accessed April 17 2020) <https://www.azernews.az/region/147868.html>

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