

### **Power sector - fuel sources**



# Mineral resource diversity excludes the dependence on a single resource type



Natural gas



Place in world Production

Place in world

reserves





Uranium







Coal



34th

# **Energy supply** diversification by source



### Hydropower

Investments of USD 2.7 bn in 2017–2025 to develop 18 new projects and upgrade 14 existing plants



Solar

51 bln tons of oil equivalent



#### Wind

360 mln tons of oil equivalent for wind energy

# Government's recent power sector reforms





## JSC "Thermal power plants"

~ Total installed capacity: 13 415 MW



ISC "Uzbekenergo"

JSC "Uzbekhydroenergo" ~ Total installed capacity: 1 932 MW



Electricity market models and transition stages identified



Together with experts from the WB, ADB and EBRD, a new version of the Electricity Law is being developed



The Electricity Grid Code is being developed with technical support from the World Bank



### JSC "Regional Electric Grids of Uzbekistan"

Distribution and supply of electrical energy to consumers through distribution networks.



#### JSC "National Electric Network of Uzbekistan"

Transportation of electrical energy from generation sources through high voltage networks



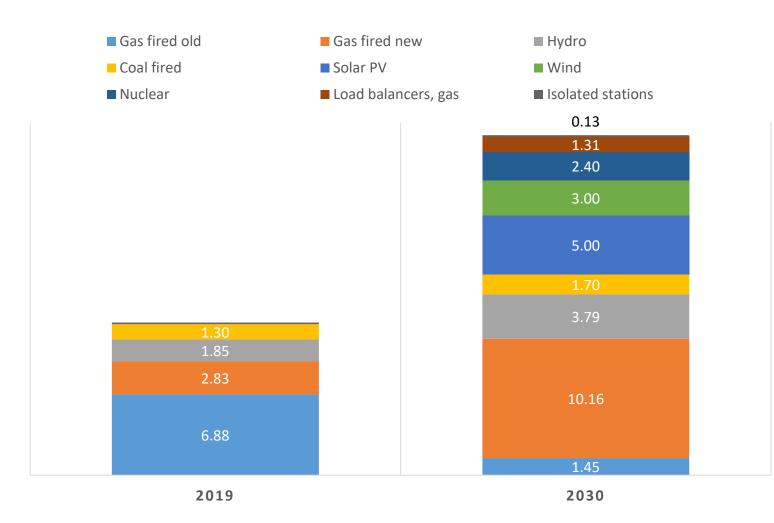
The Concept for the provision of the Republic of Uzbekistan with electric energy for 2020-2030 was developed



Transition to IEC standards in progress







Due to active measures for the development of renewables and the construction of nuclear power plant the consumption of natural gas by TPP is expected to decrease up to 25% in 2030, despite of the increasing electricity generation to 75%.

At the same time, the construction of new RE facilities with a total capacity of nearly 10 GW and the modernization of existing HPP will ensure the production from RE at a level of more than **37 TWh** (in 2019 – 6,5 TWh), as well as savings of more than **8,1** bcm of natural gas annually.

### PPP Solar PV Investment opportunities for Investors (1)



On October 18, 2019, the Government of the Republic of Uzbekistan and International Finance Corporation (IFC) signed an agreement to attract consulting services and increase the capacity of the Scaling Solar projects to 1000 MW of PV stations.



**Scaling Solar 1** 

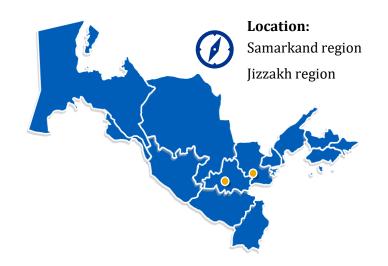
We, together with IFC, conducted a competitive selection of potential companies for the implementation of a pilot investment project of a solar PV station with a capacity of 100 MW on the basis of PPPs and based on the results "Masdar" (UAE) company was recognized as the winner at a rate of 2.679 US cents / kWh.





**Scaling Solar 2** 

In competitive selection process for - "Construction of two PV stations with the capacity at least 200 MW each in Samarkand and Jizzakh regions" "Masdar" (UAE) became winner with minimal tariff 1,791US cents / kWh.





**Scaling Solar 3** 

Nowadays, specialists of Ministry of energy and IFC are doing preliminary studies of the next phase. We are aiming to announce 3 projects with 250 MW in Bukhara, 150 MW in Namangan and 100 MW in Khorezm regions.



### PPP Solar PV Investment opportunities for Investors (2)



On August 16, 2019, a Memorandum on the provision of consulting services was signed between the Ministry of Energy, MIFT and ADB as part of the implementation of investment projects of solar PV stations with a total capacity of 1 GW in 2019-2025



#### **Sherabad 1**

In February 2020, there was an announcement about the first project - "Construction of PV station with the capacity of 200 MW in Surkhandarya region". At the end of the tender process with capacity 457 MW and minimal tariff "Masdar" (UAE) company was announces as winner.





Nowadays, specialists of Ministry of energy and ADB are doing preliminary studies of the next phase. We are aiming to announce next project with **300 MW** close to the first project in Surkhandarya region.



### **PPP Wind Investment Opportunities for Investors**



On January 14, 2019, a Memorandum of understanding on the provision of consulting services was signed between EBRD, the State Investment Committee and JSC "Uzbekenergo" as part of the implementation of investment projects of Wind power stations with a capacity of 100 MW and was increased to 1 GW.



#### Wind Farm 1

In April 2020, there was an announcement about the first wind power project in Uzbekistan - "Construction of Wind power plant with the capacity of 100 MW in Karakalpakstan Republic\*, Beruniy region". At the end of the EoI process, 70 leading companies and/or consortiums worldwide submitted applications for participation in competitive bidding.





#### Wind Farm 2

Nowadays, specialists of Ministry of energy and EBRD are doing preliminary studies of the next phase. We are aiming to announce next project with 200 MW close to the first WPP project.



# **Tender projects**

- According to the international standards and requirements of IFIs the tender procedures consist of **3 main stages**, including:
- 1) Expression of interests 1 stage (duration 1 month)
- 2) Request for qualifications 2 stage (duration from 2 to 3 months)
- 3) Request for proposals 3 stage (duration 3 month)
- The bidder who provided the **best tariff proposal** becomes the winner of the tender.
- The tender procedures with all assessment procedures take approximately **10 months**.



### **RES** projects implemented based on bilateral contracts



France

On September 13, 2019, contracts were signed with the French company "Total Eren SA" for the construction of a 100 MW photovoltaic solar power plant in the Nurabad district of Samarkand region on the basis of PPP. Currently, construction process has started.





#### The United Arab Emirates

On June 10, 2020, contracts were signed with the UAE company "Masdar" for the construction of a 500 MW wind power plant in the Tomdi district of Navoi region on the basis of PPP.





Saudi Arabia

On January 24, 2021, contracts were signed with Saudi Arabia company "ACWA Power" on the construction of a wind power plant with a total capacity of 1,000 MW in Bukhara regions.



