

# THE FUTURE OF THE CENTRAL ASIAN ENERGY SECURITY

Central Asian authorities succeeded to extend energy infrastructure to transport resources within their respective countries and to external markets such as Afghanistan, Iran, China, Europe and Russia. The region as a whole, however, failed to enhance its energy security -- ability to meet domestic energy needs for the foreseeable future.

## Dr. Farkhod Aminjonov

*Deputy Director, Energy Security Expert, Central Asia Institute for Strategic Studies, Almaty, Kazakhstan*

*Associate Professor, Department of Social and Economic Disciplines, FIEP, Narxoz University, Almaty, Kazakhstan*

Over the past quarter century, energy relations within resource-rich Central Asia have undergone several transformations. Central Asian countries were largely isolated from the outside world and continued engaging in energy cooperation with each other within the system after gaining independence in 1991. The unified Central Asian energy system entailed balancing among the energy interests of all. The effectiveness of the system, however, was compromised by energy policies of the Central Asian countries mid-2000s, which started prioritizing establishing independent energy sectors and reaching external energy markets. Central Asian authorities succeeded to extend energy infrastructure to transport resources within their respective countries and to external markets such as Afghanistan, Iran, China, Europe and Russia. The region as a whole, however, failed to enhance its energy security — ability to meet domestic energy needs for the foreseeable future. The analysis highlights that the only reliable way to ensure sufficiency of energy supplies for population and economic needs in the short-term perspective in the region is to reinstate intra-Central Asian energy cooperation.

### **Failed Attempts to Secure Energy Cooperation**

Since the establishment of the system, the resource-sharing mechanism ensured sufficiency of energy supplies in Central Asia in which hydrocarbon-rich

downstream countries channeled oil, gas and thermal electricity to upstream countries and in return received water and hydropower. However, intergovernmental agreements signed to secure the resource-sharing mechanism: Nukus Declaration (1995), Protocol 566 (1997) and agreements on using the waters of the Syr Darya and Amu Darya rivers—Syr Darya Framework Agreement (1998) and Agreements on Hydrometeorology and Parallel Operation of Energy systems (1999) proved to be ineffective over time. Disagreements over the construction of giant hydropower plants (HPP), especially Rogun HPP in Tajikistan, which is capable of affecting water distribution in the region and disputes over the price for gas and fuel compromised stability of energy supplies in Central Asia, thus resulting in the breakdown of the Unified Energy System in 2009.

An attempt to regulate regional water-energy nexus issues by engaging third party also failed to bring noticeable results. The World Bank has initiated a seven-years (2007–2014) initiative to assess economic, social, environmental and technical characteristics of the Rogun Dam (the largest water-energy infrastructure). The assessment results highlighted that 335m high dam would be economically the most efficient with acceptable environmental and social impact. Yet the progress in construction and investment attraction was once again slowed down by Uzbekistan.

## Myopic Energy Policies and Energy Interdependence

The new leadership in Uzbekistan, which came to power in late 2016, is now acknowledging that the myopic energy policy of Uzbekistan is threatening the level of energy security in the region and domestically. The broken intra–Central Asian energy trade has resulted in irrational use of limited energy resources and ineffective use of processing capacities in the region. Moreover, to a different extent, the population of the region can hardly afford sufficiency of power and energy supplies. The analysis has shown, however, that these very same challenges are currently forcing regional state actors to reconsider their energy policy priorities and move towards reinstating intra–Central Asian energy cooperation.

Both Tajikistan and Kyrgyzstan are still far from fully developing its hydropower potential (5% of the world's total) and boosting power production capacity by building large HPP. At the same times, Tajik authorities, after unexpected death of the first President of Uzbekistan Islam Karimov, who was always against the construction of the giant Rogun dam and HPP, has been showing certain progress. Russian company was replaced by the Italian construction conglomerate Salini Impregilo, which won the tender for US\$ 3.9 billion to build the Rogun. President of Tajikistan Imomali Rahmon himself run the opening ceremony of the construction site on October 29, 2016. It is now expected that electricity in Rogun will be generated already in late 2018.<sup>1</sup> Unfortunately, even if the construction of the Rogun is finished in the near future, it will take at least a decade to fill the dam and double power production capacity of the country.

Even countries, which attempt to save themselves from conflicting regional energy dynamics cannot entirely avoid Central Asian energy interdependence. For instance, hydrocarbon-rich Kazakhstan failed to implement its countrywide gasification initiative to supply Southern regions of the country with its own gas. As a result, Kazakhstan will continue to import 30% of its gas consumption from Uzbekistan. Even neutral Turkmenistan cannot entirely isolate itself from the Central Asian energy politics. Unless Central Asian relationships are stable, Turkmenistan will not be able to secure stable transit of its gas to its only customer—China. Since January 1, 2016 Russia has completely stopped importing gas from Turkmenistan. In January 2017, Turkmenistan suspended gas supplies to Iran. Lack of gas transporting infrastructure, along with political and security issues, prevent Turkmen government from exporting gas in the European and South Asian directions. Existing three and projected fourth pipeline with the capacity of 80 billion m<sup>3</sup> will be transporting almost all of Turkmen gas to China throughout the entire region, thus turning Turkmenistan to some extent dependent on the transit Central Asian states.



## Positive Changes and A Chance for Greater Cooperation

Realizing the risk of escalating energy insecurity in the region, Central Asian countries are showing cooperative dynamics in their energy relationship. Kyrgyzstan and Uzbekistan signed an agreement for the export of Kyrgyz electricity to Uzbekistan in the amount of 1.25 billion kWh per year. Climate change and rapidly melting glaciers secured enough water for Kyrgyzstan to produce electricity to meet domestic needs and for export. The largest Toktogul water reservoir has hit its almost full capacity of 18.78 billion m<sup>3</sup>.<sup>2</sup> These conditions will secure water and energy interests of the Central Asian upstream and downstream countries, allowing them to use water in the most rational way. In the long run, however, climate change may impact the water availability causing another wave of tensions. Restored intra–Central Asian trade might also help mitigating the crisis ahead.

During his last visit to Turkmenistan, President of Uzbekistan Shavkat Mirziyoev agreed to let Turkmen electricity reach Kyrgyzstan and Kazakhstan via power transmission lines of Uzbekistan.<sup>3</sup> Turkmenistan is exporting up to 2 billion kWh annually, which is 13–17 percent of total electric power production. Between 2007



and 2009, Turkmenistan exported electricity to Tajikistan in an amount of 1 billion kWh annually, but stopped due to Uzbekistan's withdrawal from the Central Asian Countries' Power Systems (CAPS). Countries are discussing the possibility to restore electricity trade.

Uzbek authorities have also reached agreement with Kazakhstan to import oil via Omsk–Pavlodar–Shymkent oil pipeline to refine it. Hydrocarbons extraction in Uzbekistan has halved for the past decade. As a result, oil-refining capacities in the country – Bukhara, Ferghana and Altyraryk refineries—operate for 60 percent.<sup>4</sup> Incapability to meet domestic needs for fuel forces Uzbekistan to restore and establish new oil supply

linkages within the region. Moreover, leaders of Uzbekistan and Turkmenistan agreed to refine Turkmen oil in Bukhara refinery.

The Central Asian energy sectors were designed as a complex system within which state actors interacted and affected each other's energy security simultaneously. And, despite the fact that transition period in 2000s largely ignored regional energy cooperation and focused primarily on myopic national energy interests, evidence shows that at least in the near and medium-term perspective restoring energy linkages within the region will help Central Asian states mitigate energy insecurity.

## Endnotes

- 1 Tohir Safarov, "Tajik President Officially Launches Construction Of Rogun Dam," *RadioFreeEurope*, October 29, 2016, <http://www.rferl.org/a/tajikistan-rogun-dam-construction-launched/28082302.html>.
- 2 Ekaterina Ulitina, "Kyrgyzstan Nachal Eksport Elektroenerii v Uzbekistan (Kyrgyzstan Has Started to Export Electricity to Uzbekistan)," *Komsomolskaya Pravda*, July 6, 2017, <http://www.kp.kg/online/news/2799944/>.
- 3 "Uzbekistan Nachal Aktivno Sotrudnichat s Sosednimi Stranami (Uzbekistan Has Begun Active Cooperation With Neighboring Countries)," *UzNews*, July 10, 2017, <http://uznews.uz/article/6017>.
- 4 "Nefteprovod Kazaxstana Pomojet Uzbekistanu Uvelichit Vypusk Benzina (Kazakh Oil Pipeline Will Help Uzbekistan Increase Fuel Production Output)," *Anhor*, March 27, 2017, <http://anhor.uz/society/10481>.