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Central Asian Regulators Take Steps to Protect Vulnerable Customers through Tariff Design



Group photo with Kazakh partners during a training on cost of service regulation to achieve cost-reflective tariffs in January 2023

October 2023 – Regulatory authorities from Kazakhstan, the Kyrgyz Republic, and Uzbekistan are in the process of updating their tariff methodologies to become more cost-reflective of the actual costs of generating, supplying, and transporting electricity to end users so that utilities can recover their costs and remain financially viable. Cost recovery through tariffs helps to ensure that utilities are able to maintain and invest in the electricity system, which is key to securing reliable and affordable electricity for customers in the long-term.¹ However, raising tariffs to cost-reflective levels is not as favorable for vulnerable customers who are already struggling to pay their energy bills. To implement tariff

methodologies that are fair to all customers, it is important that regulators identify and classify customer groups accurately so that they can design tariffs and pricing strategies appropriately.

With funding from the United States Agency for International Development (USAID), the National Association of Regulatory Utility Commissioners (NARUC) is working with regulatory authorities in the Central Asia region to address this need under the USAID and NARUC Central Asia Energy Regulatory Partnership (CAERP). The CAERP works to strengthen the regulatory capacities of partners in Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan so that they can support the effective governance of energy markets in Central Asia; promote the achievement of transparent, cost-reflective tariffs; and encourage the adoption of a regulatory framework that assists in regional energy integration, interconnection, and modernization.

The Need for Tariff Reform in Central Asian Energy Sectors

One of the major barriers to creating an enabling environment for investment and modernizing energy sectors in Central Asia is extremely low energy tariffs that do not allow utilities to collect sufficient revenue to improve grid infrastructure. For example, in Kazakhstan, almost half of the generating infrastructure is more than 30 years old and needs considerable investment toward upgrades and modernization.² However, in December 2022, the price of electricity in Kazakhstan was 0.048 USD per kilowatt hour for households in comparison to 0.185 USD, which was the average price of electricity in the world for that period.³ This low price points to the likelihood that utilities under-recovered their costs in providing service rather than reaping additional profits,⁴ effectively disincentivizing investment in the energy sector by providing a signal to investors that there may not be a credit-worthy off-taker and that they may not receive a reasonable return on their investments.

Tariffs that are not cost-reflective also prevent power companies and utilities from recovering their operating and maintenance costs, which can lead to poor service quality and the inability to maintain existing electricity infrastructure, let alone invest in new infrastructure that might lower the costs of providing electricity in the long-term.⁵ For example, in Central Asia, low energy tariffs have contributed to the deterioration of many centralized district heating (DH) systems, which need substantial resources for rehabilitation.⁶ Many countries in the east and southeast of the Central Asian region have cold climates and long heating seasons, with average winter temperatures ranging between 10 and negative 25 degrees Celsius and a snow-covered landscape for more than half of the year.⁷

Coupled with the fact that several countries in the region rely on DH to meet heating demand, increasing tariffs to a cost-reflective level will be key to providing a reliable supply of heat as well as protecting and improving the welfare of customers on the whole. However, the cost of heating during these long and cold winters puts the largest burden on vulnerable energy customers who are at risk of energy poverty due to affordability, access to energy services, or socio-economic circumstances (e.g., elderly, disabled, or unemployed). In fact, poor households tend to spend a larger share of their budget on energy than nonpoor households and have greater difficulty affording tariffs that are already considered low or affordable to other customer groups.⁸ Increasing energy tariffs to a cost-reflective level requires both regulators and utilities to better understand the real cost of service, including how to analyze and allocate costs to ensure equity among customer classes.

Providing Guidance on Tariff Design for Vulnerable Customers



Uzbekistan partners during a training on cost of service regulation to achieve cost-reflective tariffs in February 2023

Under the CAERP, NARUC has facilitated several training sessions for regulatory authorities in Central Asia focused on tariff design and transitioning to cost-reflective tariffs while protecting vulnerable customers. NARUC has also provided technical assistance on these topics by producing resource documents tailored to the energy sector contexts of partner countries.

Kazakhstan and Uzbekistan

Throughout November 2022 and January-February 2023, NARUC trained the Committee for Regulation of Natural Monopolies (CRNM) of Kazakhstan and the Competition Promotion and Consumer Protection Committee of Uzbekistan on how to ensure greater cost recovery for their countries' power sectors through reviewing and approving tariffs based on cost of service principles. The training sessions also covered how to allocate costs among customer classes, determine rates, and protect vulnerable customers.

According to the CRNM, attending the training sessions helped to advance a renewed focus on cost recovery for the energy sector, especially following the President of Kazakhstan's State of the Nation Address in September 2022. During his address, the President called for a transition to a new tariff policy that aims to achieve a 15% reduction in the depreciation of generating capacities by 2035, increase investment in the energy sector, and protect vulnerable customers from tariff increases through targeted subsidies.⁹ As the CRNM is helping to lead the tariff reform effort in Kazakhstan, its staff can use the knowledge they have gained to progress toward these national energy sector goals.

NARUC also developed a *Report on Customer Classes and the Protection of Vulnerable Customers in Kazakhstan*. Ayagoz Sailaubayeva, an expert at the Strategic Analysis and International Integration Department at the CRNM, noted, "The *Report* provided an opportunity for CRNM staff to study the international experience in consumer class analyses, as well as differences in tariffs between different countries and the impact on them. In addition, the principles and methods of cost allocation were studied, which will definitely be used in the CRNM's work. This report will be used to help the transition to a new tariff policy."

Similarly, NARUC developed the *Report on Customer Classes and the Protection of Vulnerable Customers in Uzbekistan*, which Uzbek partners have noted is especially useful for providing an analysis of foreign experience on classifying customer classes into different categories and grouping them by individual tariffs. Bakhodir Yusupjanov, Deputy Head of International Cooperation and Ratings Department at the Competition Promotion and Consumer Protection Committee of the Republic of Uzbekistan, stated that "Overall, the report insights will help us to develop regulations for the establishment of an independent regulator in the electric power industry, as well as a roadmap for enhancing current regulation." Bakhtiyor Umarov, Head of the Financial Flows, Pricing Policy, and the Internal Audit

Department at the Uzbekistan Ministry of Energy, added, “I am confident that this report will serve as a checkpoint for the further development of tariff policy aimed at establishing so-called fair tariffs.”

Kyrgyz Republic

To aid the Kyrgyz Republic, NARUC developed two reports – an *Analysis of International Experience with Electricity Tariff Design* and *Designing Social Tariffs for Low-Income Consumers for the Kyrgyz Republic* – which the Department of the Fuel and Energy Complex Regulations (DFECR) can use to inform its decision making and ensure that the tariff structure in the Kyrgyz Republic meets energy sector objectives regarding a subsidy mechanism for vulnerable customers. In July 2023, NARUC presented the findings of both reports to the DFECR and invited policy experts from the United States and Georgia to share their insights. As a result, the DFECR was able to identify action items and begin to form strategies on how to implement the recommendations it received.



Group photo with Kyrgyz partners during a training on tariff design for vulnerable customers in July 2023

Regional

Most recently, NARUC published a set of regulatory accounting guidelines developed for Central Asian regulatory authorities that includes recommendations on how to identify vulnerable customer groups and options for rate design. The guidelines are available in both English and Russian, and include the following documents:

- Module 1: Guidelines on Best Practices in Regulatory Accounting
- Module 2: Guidelines on Accounting for Key Determinants of Cost of Service and How to Calculate Them
- Module 3: Guidelines on Determining the Costs Among Customer Classes
- Module 4: Guidelines on Determining Customer Classes, Rates, and Protecting Vulnerable Customers

Using these guidelines, readers can more effectively establish how much revenue utilities should collect from customers through tariffs and how to allocate costs among customer groups to ensure fairness and economic efficiency. As national regulatory authorities in Kazakhstan, the Kyrgyz Republic, and Uzbekistan each work to find a balance between improving service quality and supply reliability within their respective energy sectors and designing tariffs that are just and reasonable for all, NARUC will continue to support them in achieving their goals for energy sector development.

This story is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of NARUC and do not necessarily reflect the views of USAID or the United States Government.

¹ “Primer on Rate Design for Cost-Reflective Tariffs.” USAID and NARUC. <https://pubs.naruc.org/pub/7BFEF211-155D-0A36-31AA-F629ECB940DC>

² “Sector Assessment (Summary): Energy.” Asian Development Bank. <https://www.adb.org/sites/default/files/linked-documents/cps-kaz-2012-2016-ssa-02.pdf>

³ “Kazakhstan electricity prices.” GlobalPetrolPrices.com. https://www.globalpetrolprices.com/Kazakhstan/electricity_prices/

⁴ “Primer on Rate Design for Cost-Reflective Tariffs.” USAID and NARUC.

⁵ Ibid.

⁶ “Sector Assessment (Summary): Energy.” Asian Development Bank.

⁷ “Energy Situation in Central Asia.” Scholarly Community Encyclopedia. <https://encyclopedia.pub/entry/12547>

⁸ Steve Pye, Audrey Dobbins, Claire Baffert, Jurica Brajković, Paul Deane, Rocco De Miglio. “Addressing Energy Poverty and Vulnerable Consumers in the Energy Sector Across the EU.” <https://www.cairn.info/revue-l-europe-en-formation-2015-4-page-64.htm>

⁹ “Tariff in exchange for investment: Bolat Akchulakov talks about the transition to new tariff policy.” The Press Service of the Government of the Republic of Kazakhstan. October 2022. <https://primeminister.kz/en/news/reviews/tariff-in-exchange-for-investment-bolat-akchulakov-talks-about-the-transition-to-new-tariff-policy-110749>