

**THE KYRGYZ REPUBLIC:
THE PRESENT AND
FUTURE OF INTERSTATE COOPERATION
IN THE ENERGY SPHERE**

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**1. The Level of Power Production and
Interstate Cooperation**

Its rich water resources (50 billion cu m of surface runoff a year, 13 billion cu m of potential ground water resources, 1,745 billion cu m of lake water, and 650 billion cu m of glaciers) set the Kyrgyz Republic apart from its neighbors. The region's largest rivers (the Naryn, 807 km; Chu, 380 km,

Talas, 200 km, Saryjaz, Kara Darya, Chatkal, and others that belong to the Syr Darya and Amu Darya basins) form their runoffs in Kyrgyzstan. Its hydropower potential is estimated at 162 billion kWh, or 38 percent of Central Asia's total; it has not yet been fully tapped: the level does not exceed 8 to 9 percent.¹ The annual hydropower potential of the smaller rivers is between 5 and 8 billion kWh; today the national economy uses only 3 percent. It is believed that non-traditional renewable energy sources may produce 800 million tons of standard fuel. So far, little has been done here either to exploit them to their maximum capacity.

The republic's hypothetical coal reserves are assessed at over 2 billion tons; the undiscovered reserves of oil and gas are equal to about 289 million tons of standard fuel; today, only a fraction of this wealth is used. Between 1991 and 2006, oil production dropped 2.2-fold and natural gas 3.8-fold. On the whole, locally produced oil and gas cover a meager 5 percent or even less of the republic's needs. This means that it completely depends on Russia, Kazakhstan, and Uzbekistan for fuel.

In the last fifteen years, the Kyrgyz Republic, which has been building up its statehood and moving toward a market economy, tried to maintain its fuel-and-energy balance (FEB) in the midst of an economic slump and disrupted interstate economic relations. This was not easy: in 2005, the production of fuel and energy resources dropped to 52 percent, energy imports to 22 percent; energy consumption to 90.4 percent, and energy exports to 27 percent of the 1990 level.

An analysis of the macroeconomic indicators and power consumption has demonstrated that, on the whole, power consumption rates declined slower than the GDP rates and was accompanied by a steadily decreasing electric capacity of the GDP to 43 percent; per capita power and electricity consumption dropped to 28 and 70 percent, while the GDP's electric capacity decreased to 106 percent against the 1990 level.

Disrupted interstate relations in the energy sphere are responsible for the structural shifts in the republic's FEB: the republic's coal imports have dropped from 2.9 million tons in 1990 to 981 thousand tons in 2005, or 33 percent of the 1990 level; between 1990 and 2005, coal mining decreased from 3.74 million tons to 335.3 thousand tons, or 11-fold. Today, the heat and power plants, local boiler houses, and population in general are exposed to an acute shortage of fuel. About 60 percent of the total amount of coal the country uses goes to the energy sector to produce electric and heat energy.

Power industry is the cornerstone of the republic's budget; its share in gross industrial output increased from 4.2 percent in 1990 to 20.4 percent in 2005. Power production is growing faster than that of other energy resources: from 13.3 billion kWh in 1990 to 14.48 billion kWh in 2006. The share of hydropower stations in power production increased from 67 to 94 percent, while the share of heat and power plants dropped from 32 to 6 percent in 2006. This happened because energy fuel prices skyrocketed, while fuel deliveries from neighboring countries became sporadic. There are 17 power stations in the republic with a total installed capacity of 3,680 MW; this number includes 15 hydropower stations with the installed capacity of 2,950 MW and two heat and power plants of 730 MW; the share of the hydropower stations in the republic's FEB is 81 percent; of heat and power plants, 17 percent; and of small hydropower stations, 1.3 percent.

Energy is transferred and distributed via more than 70 thousand km of 0.4, 500 kV power transmission lines; 546 km of which are lines of 500 kV; 1,714 km, 220 kV, and 4,380 km, 110 kV; there are also about 490 transformer substations of 35,500 kV and with a total capacity of over 8 million kW. The republic's energy system is connected with the energy systems of its neighbors through the trunk system-forming power transmission lines; together they belong to an energy ring of 500-220 kV of the United Energy System of Central Asia (UES CA). This brings electric power to practically all corners of the republic.

¹ Here and elsewhere the authors use the working papers of the Ministry of Industry, Energy, and Fuel Resources of the Kyrgyz Republic.

At the same time, Kyrgyzstan trails behind the world's average in terms of per capita energy consumption: 1,777 kWh and 2,343 kWh, respectively, and even behind its Central Asian neighbors—Kazakhstan (3,312), Tajikistan (2,172), and Uzbekistan (1,796.)

This is explained in part by the 18 percent drop in energy consumption in the real economic sector between 1990 and 2005; at the same time, today the amount of electric energy transformed into other types of energy is 2.6 times greater than before. The drop in energy consumption was especially obvious in industry, where it reached 52 percent of the 1990 level. At the same time, today the communal sector is using more than twice as much energy, which recompenses for the drop in energy consumption in the real economic sector. The steadily growing prices on all types of solid fuel, natural and liquefied gas, and the ruptured interstate energy relations are behind this.

Today, the Nizhne-Narynsky Cascade of the hydropower stations with a total capacity of 2,780 MW, the Toktogul long-period storage reservoir, and the Kurpsay, Tashkumyr, Shamaldysay, and Uchkurgan seasonal- and daily-storage reservoirs are the only reliable power sources. They were also used to ensure alternating loading of the neighbors and regulate the UES CA frequencies. The optimal UES CA regime presupposes mutual power deliveries during the peak periods at the Cascade during vegetation development when the hydropower resources of the Naryn-Syr Darya basin are also comprehensively used for irrigation and maximum production of heat and power plants in the fall and winter.

It is highly important for the entire region that the Toktogul hydropower system and the long-period storage reservoir of 19 cu km should be adjusted to the interests of Kazakhstan and Uzbekistan, the two countries located on the rivers' lower reaches, and that sanitary release of water into the Aral Basin should be ensured. The project put on the table by the Zhuk Institution of Hydro-Engineering intended the Toktogul system for irrigation; it was expected to expend 70 percent of its water during the vegetation period. Uzbekistan and Kazakhstan should have shared the resultant energy (over 4 billion kWh a year) and recompensed Bishkek in the fall and winter with natural gas (over 1 billion cu m), coal (600-800 thousand tons) from Kazakhstan, and furnace fuel oil (350 thousand tons). Independence disrupted the economic ties among the Central Asian states; what used to be interdepartmental contacts and interdepartmental disagreements developed into interstate contacts and interstate disagreements. The republic's neighbors cut down their fuel exports, which forced Kyrgyzstan to adjust the regime of the Toktogul system to its own needs: in wintertime it produces energy for domestic consumption and irrigates its neighbors on the lower reaches of the Naryn and Syr Darya in summertime.

In 1998, the states situated in the basins of these rivers signed interstate agreements On Parallel Work of the UES CA Power Systems and On the Use of Water and Energy Resources of the Syr Darya Basin. The agreements remained on paper while Kazakhstan and Uzbekistan, which actively sought energy independence, cut down the net power flow by more than half in 1991-2005. Today Uzbekistan imports less natural gas and other fuel for the needs of heat and power plants (1,015 million cu m in 1990 and 175.5 million cu m in 2005); Kazakhstan sells less furnace fuel oil (a drop from 350 thousand to 17.2 thousand tons) and coal (from 1,037 thousand to 689 thousand tons); Kyrgyzstan sends 19.5 thousand tons of coal to heat and power plants instead of the previous 568 thousand tons, while it receives the same 601 thousand tons of coal from the Karaganda basin of Kazakhstan. This structure of fuel consumption (97 percent of which is imported at prices close to the world prices) can hardly be called economically reasonable. Every year the Kyrgyz Republic spends about \$32-37 million on fuel; 43 percent of the money is spent on natural gas transportation and 52 percent on coal transportation. The Bishkek heat and power plant uses only 3 percent of the coal mined in the coal-rich republic: in post-Soviet times, it has become cheaper to buy coal from Kazakhstan than to move the coal mined in the republic's south to the north by the railway that crosses Uzbekistan, Tajikistan, and Kazakhstan.

The energy companies suffered because of the reduced exports and higher prices on imported fuel. On top of this the installed capacities of the hydropower stations of the Nizhne-Narynsky Cascade and the Bishkek heat and power plant remain underloaded. In fact, the republic might be squeezed from the energy market, if the government remains passive and goes on with its poorly balanced policies. It should more actively develop interstate energy ties and insist on the country's integration into the emerging united Central Asian energy market.

The losses, which increased 5-fold between 1991 and 2006, had a negative effect on the power system's financial and economic position. Since 1993, the system has been suffering not only from technical, but also from so-called commercial losses (the stealing of energy): in 2006, 5,135 billion kWh of electric power, or 34 percent of the total amount produced (50 percent of the energy that went to the distributors), were lost (stolen). In 2006 alone, the country lost 2,957 million som (\$77.8 million) with an actual average sale tariff of 57.6 tyyn (1.51 cents) per 1 kWh through technical and commercial losses.

Technical losses are increasing together with equipment depletion, the larger part of which has outlived its service life. Electric power is being stolen because of inadequate management and inadequate administrative and legal tools designed to prevent stealing, and also corruption among the inspectors; there is no money to install automatic systems for commercial accounting of power consumption, or similar electronic systems.

The production, import, and consumption of energy have decreased, but the republic's GDP remains highly energy intensive (1.08 toe per \$1,000) and much higher than the world's average (0.30 toe per \$1,000) because of the low technical level of energy-consuming processes and depletion of most of equipment (this is true of the fuel and energy complex as well). There is not enough money to introduce energy-saving measures, the potential of which in the real economic sector and service business is assessed at 35 to 40 percent. If realized, such measures could have reduced energy intensity, boosted competitiveness of locally produced products, and made the republic's economy more energy-efficient.

In the last fifteen years, the republic pursued the following goals stipulated by the Law on Energy:

1. Ensuring the country's energy security by developing trunk power lines and generating sources on its own territory; replacing obsolete and depleted equipment, developing a system of commercial control of electric power, and creating a wholesale energy market.
2. Putting the production structures on a functional basis to adjust them to the market economy through sales of shares, partial privatization, and corporate management.

Privatization of the republic's energy complex called for consecutive and interconnected steps arranged in four stages.

The first stage has been completed by 70 percent. On 16 June, 1997, the Ministry of Justice of the Kyrgyz Republic registered the Kyrgyzenergo joint-stock company as a legal entity. From that day on it has been functioning as a public joint-stock company with a share of private capital. The authorized capital of the Kyrgyzenergo was set at 7,470,107.7 thousand som. Much has been done to take stock of its property and analyze the results. Of all the boiler houses, only the one in Karakol was transferred to the state administration.

At the second stage of the same program:

- The maintenance enterprises Kyrgyzenergoremont and Kyrgyzenergospetsremont and the Cascade of the Alamedin hydropower stations (later the ChakanGES Hydropower Station joint-stock company was set up on their basis) were removed from the structure of the Kyrgyzenergo joint-stock company.

- The local executive bodies received some of the housing and communal and social service facilities.

On 12 January, 2001, a general meeting of the Kyrgyzenergo shareholders was convened, at the third stage, to remove four electric power-distributing companies and one heat-distributing company from the Kyrgyzenergo joint-stock company.

As a result, seven new joint-stock companies with a state-owned controlling interest were set up: the Elektricheskie stantsii (Electric Stations) joint-stock company as a power-generating company; the Natsional'naia elektricheskaia set Kyrgyzstana (National Electric Grid of Kyrgyzstan) joint-stock company is engaged in managing the electric grids; four companies (the Severelektro, Vostokelektro, Oshelektro, and Jalal-Abadelektro joint-stock companies) engaged in power distribution; there is also one heat-distributing company (Bishkekteploset), as well as joint-stock companies with a share of private capital (the ChakanGES, Kemin and Kalinin hydropower stations).

The largest part of the former company's authorized capital went to the Electric Stations joint-stock company (60 percent); the National Electric Grid of Kyrgyzstan JSC received 22 percent; Severelektro JSC, 6 percent; Bishkekteploset JSC, 5 percent; Jalal-Abadelektro JSC, 3 percent, while Vostokelektro JSC and Oshelektro JSC acquired 2 percent each.

The state owns 93.65 percent in all the newly formed companies: the Ministry of State Property of the Kyrgyz Republic owns 80.49 percent of the state's shares; the Social Fund, 13 percent; legal entities, 4.035 percent, and 2.32 percent belongs to private individuals. The state shares cannot be sold or pledged; neither can they be transferred to trust management, and these companies' property cannot be alienated.

It was expected at the fourth state that:

- in the 3rd quarter of 1998 consulting firms expected to identify the best strategic investors would participate in a tender;
- the results of the tender would be summed up in the 4th quarter of 1998;
- an investment tender for the energy complex facilities would be announced in 1999;
- in the 1st quarter of 1999, large state-owned blocks of shares (up to 70 percent) of all joint-stock companies with the exception of the state-owned Naryn Cascade and National Electric Grid joint-stock companies would be sold to strategic investors on a competitive basis.
- in 1999 the results of the tender for strategic investments or for transferring companies to trust management would be summed up, while the state would retain its controlling interest in power production and power transmission.

The fourth stage has not yet started. Restructuring and power and heat rates that do not cover the production and distribution costs are crippling the power companies economically and financially. On top of this the price of exported power has dropped, which incurred losses for the Electric Stations JSC engaged in the export of electric power.

The slump is explained by the inadequate mechanisms of collecting payments for power transmission and distribution and cross-purpose subsidizing, and the low level of payment collection for power according to average electricity rates (in 2006, this share reached 77 percent, which increased customer receivables to the distributing companies (DEC) to \$83 million). The DEC, in turn, accumulated a debt of \$99 million to the Electric Stations (ES) public joint-stock company and \$50.5 million to the National Electrical Grid of Kyrgyzstan (NEGK) public joint-stock company. In the last decade, all the power corporations, with the exception of the NEGK, were losing money, which means that they were accumulating trade and tax liabilities.

Technical and commercial losses remain high; in 2006 they reached 38 percent (40 percent in 2005), of which 18 to 20 percent, respectively, can be described as technical and 18 and 22 percent as power misappropriation by customers. According to the IMF, in 2006 the quasi-fiscal GDP deficit incurred by power companies reached 4.5 percent (7.6 percent in 2005); this weights heavily on the republic's macroeconomic stability and sustainability of its budget.

The nonpayment crisis is exacerbated by the current energy tariffs (an average rate of 1.63 cents per kWh in 2006), which cannot cover the cost of power production, transmission, distribution, and sale (2.3 cents per kWh according to the WB and IMF) and leaves the power companies underfunded. None of them could re-invest in grid reconstruction, new power-control technologies, development, or capital construction.

The companies' financial and economic instability undermines the republic's economic security. Its energy security is adversely affected by the following domestic factors: the low level of financial management and technological commercial control, power misappropriation by customers, the low financial discipline of users, and inadequate attention to the funding sources designed to restore and retool the power industry.

The following is needed to break the vicious circle:

- Discuss and approve the draft project entitled "Medium-Term Tariff Policies of the Kyrgyz Republic for 2007-2010," under which the tariffs should be gradually raised to cover the costs;
- Aim this policy at creating a transparent mechanism of export tariffs which should not be lower than the current (on the day of the conclusion of contracts) power prices on the national and regional power markets;
- Amend the privatization laws applied to the already functioning and planned hydropower and thermal power stations, and endorse the fourth stage of the privatization program.

In June 2007, the parliament of the Kyrgyz Republic discussed the results of the first three stages of restructuring the power sector and transfer to the fourth stage. The deputies also discussed the amendments to the privatization laws related to the functioning and planned generating and distributing companies, pointed to the inadequate results of the three stages, and disagreed over the fourth stage. Most of them are convinced that the new, private owners would raise the tariffs and that the resultant public discontent was very likely to upset the shaky domestic balance. After discussing the amendments to the Law on the Special Status of the Toktogul hydropower system, under which the most profitable of them were earmarked for privatization or concession to attract investments, the deputies passed the Law on the Construction of Kambarata hydropower stations. The Bishkek heat and power plant was removed from the Electric Stations public joint-stock company. The deputies postponed all discussion of the fourth stage of privatization in the power sector. They decided to return to issues related to concessions and trust management of the distribution companies and the Bishkek heat and power plant and/or to their privatization after careful analysis of the power companies and their results.

Today, the Ministry of Industry, Energy, and Fuel Resources of Kyrgyzstan is thrashing out the questions of the work of the power companies. A competitive domestic market will not appear even when the Bishkek heat and power plant is removed from the Electric Stations public joint-stock company: the electric and heat energy it produces is much more expensive than hydropower; in fact hydropower prices are quite competitive on the wholesale Central Asian market.

Competition on the retail power market will appear when electric power sales are separated from power distribution. Their economic nature will allow the marketing companies to become the legal agents of the power market: they will compete for contracts between the users and sellers of electric power. This means that the user will be free to select the agent that will take care of deliveries and

control the sides' obligations. The marketing companies can either sign contracts with distributing companies or discontinue contacts with any of them. The bilateral agreements will allow the distributing companies to expect payments on time. On the other side, the users will complain not to the distributing, but to the marketing company, which, in turn, will control the quality of supplies.

This means that the power market will acquire a new coordinating and regulating entity. Its conscientious work will help the marketing companies to improve their financial status and find money for reconstruction and high technologies. The distributing companies will finally pay their debts to the NEGK and ES public joint-stock companies. The time has come to master a new level of contract relations and realize that unfulfilled obligations are fraught with property, administrative, and criminal responsibility. All the power companies should improve their administrative system and introduce the latest management methods.

2. Power Projects and Prospects of Interstate Cooperation

To make the developments in the power sector more effective, the Government of the Kyrgyz Republic passed Decision No. 71-r of 15 February, 2006 and Decision No. 310-r of 10 June, 2006 on elaboration of the National Energy Program of the KR for 2006-2010 and the Strategy of the Fuel and Energy Complex until 2025 (NEP). It was ready on time, by 1 November, 2006; the government, however, failed to discuss it within the stipulated period. The Ministry of Industry, Energy, and Fuel Resources, which appeared in the new Cabinet in February 2007, discussed the draft and, in July 2007, passed it on to the government.

This document identifies the aims, tasks, and main trends of the state's medium- and long-term power policy and the mechanisms for its realization. In the medium-term, it is necessary to improve the sector's financial status, restore balanced and integrated development, achieve steady advance, and improve the institutional, tariff, and investment policies.

In the long-term perspective, the government is resolved to ensure energy and ecological safety and power and budget efficiency.

To achieve this, the country should acquire a clear idea of the main elements of its power policy: effective management of state power resources, development of domestic fuel and energy markets, as well as maintenance of a rational fuel and energy balance. The country needs substantiated regional and foreign policies in the power sphere, as well as a socially oriented policy and technological innovations in the fuel and energy sector.

The NEP has identified the following power projects as priorities: Kambarata-2 hydropower station with an installed capacity of 360 MW and Kambarata-1 hydropower station with an installed capacity of 1,900 MW built higher than the Toktogul hydropower system. The investments are assessed at the \$2.2 billion level. There are also plans to add two hydropower stations with a total capacity of 200 MW to the Verkhne-Narynsky Cascade (assessed cost of \$200 million). It is expected that by 2015-2025, under favorable investment conditions, a hydropower station will appear on the Sary-jaz River with a total installed capacity of 1,000-1,200 MW or even more, it will cost over \$1 billion (see Table 1). The Bishkek heat and power plant-2 with a capacity of 400 MW and a thermal power plant with a capacity of 1,200 MW at the Kara-Keche coalmines, which will cost \$1.1 billion, are regarded as alternatives for adding base power to the country's power system.

The newly commissioned capacities will bring power production up to 17.094 billion kWh a year by 2010 and to 38.57 billion kWh by 2025. The planned facilities, schedules, and power production are shown in Table 2.

Table 1

Forecast of Commissioning Generating Sources for the Period up to 2025

Name	Installed capacity (MW)	Construction dates (years)	Cost (million dollars)
Kambarata-1 and Kambarata-2 hydropower stations	1,900	2010-2020	2,200
	360	2007-2012	280
Djilanyk-1 and Djilanyk-2 hydropower stations	200	2007-2010	220
Akbulun Hydropower Station	200	2010-2014	200
Saryjaz hydropower stations	1,200	2010-2025	1,200
Kavak State District Power Station	1,200	2008-2015	1,100
Total			5,200

Table 2

Forecasted Power Production in the KR by the Commissioned and Planned Power Stations (billion kWh)

Name	2005	2010	2015	2020	2025
Nizhne-Narynsky Cascade of hydropower stations	13.706	14.547	14.547	14.547	14.547
Bishkek and Osh heat and power plants	0.881	1.077	1.584	1.836	2.128
Small hydropower stations	0.0846	0.450	0.650	1.0	2.2
Non-traditional renewable energy sources	0.015	0.020	0.025	0.030	0.045
Kambarata-1 and Kambarata-2 hydropower stations			1.2	2.4	5.6
		0.4	1.1	1.1	1.1
Djilanyk-1 and Djilanyk-2 hydropower stations		0.6	1.2	1.2	1.2
Akbulun Hydropower Station			0.75	0.75	0.75
Saryjaz hydropower stations			1.8	3.6	5.4
Kara-Keche Thermal Power Plant			5.6	5.6	5.6
Total power produced by hydropower stations	13.805	16.017	21.272	24.627	30.842
Total power produced	14.686	17.094	28.456	32.063	38.57

In the forecasted period small hydropower stations will be added to the republic's total power producing capacities; the total capacity of the small stations will be 178 MW, they will produce over 1 billion kWh a year; the projects will cost \$200-220 million.

The increased capacity and power production will require adequate trunk power lines (220-500 kV); this will be done by improving the South-North lines (500 kV) in the republic's power system. Increased power transmission to the North will require a new main substation of 500 kV (the Keminsubstation of 500/220 kV with a South-North high voltage transmission line of 500 kV) that will in the future be connected to the Kambarata hydropower stations.

To develop the main electric networks in the republic's south and decrease its dependence on its neighbors, it was decided to build the Datka substation of 500/220 kV, which would be connected to the already functioning high voltage 500 kV Toktogul hydropower system-Lochin (Uzbekistan) line to be used for power transmission from the Nizhne-Narynsky Cascade. As soon as the Datka substation is completed, the 220 kV networks (total length 360 km) will be reconstructed. In 2006-2010, the Improvement of Power Supply to the Batken Region will be completed; it demands \$335 million in investments.

The supply-demand correlation or the forecasted power balance testifies that the power sector's development strategy will cover the future increased needs in power in the real economic and communal sectors and will boost the sector's export potential:

- Under the first scenario—to 3.2 billion kWh by 2010; 15.8 billion kWh, by 2025;
- Under the second scenario—to 3.2 billion kWh by 2010; 11 billion kWh, by 2025.

3. Strategic Tasks of Interstate Cooperation

It has been estimated that in the medium-term (2007-2010) the republic will need about \$930 million to develop its power sector, the assessment for the long-term period (2011-2025) is \$5-6 billion. The figures are too high for the republic with a GDP of slightly over \$2.5 billion and a foreign debt of \$2.1 billion. This means that private investments, interstate cooperation under the already signed agreements and involvement, on an equal footing, in setting up a power and power-generating capacities market within the United Energy System (UES) of Central Asia and the CIS, as well as cooperation with the power systems of the South Asian countries, are the only option.

Today, and in the long-term perspective, the Russian Federation, which is building Kambarata-1 and Kambarata-2 hydropower stations, and China, which is involved in building hydropower stations on the middle reaches of the Naryn and Saryjaz rivers and the Kara-Keche thermal power plant, will remain the most probable partners in the republic's hydropower industry and power exports. If completed on time, they will increase the amount of exported power.

Kazakhstan and Uzbekistan, the power-balanced countries in the region, might be interested in buying peak power from the Kambarata stations in wintertime.

South Asia looks promising as a power market: it might be interested in buying peak power in summertime when the Nizhne-Narynsky Cascade works for irrigation. The accompanying power not needed in Kyrgyzstan could be sold through the United Energy System of Central Asia to Tajikistan and further on to Pakistan, which by 2010 will be short of up to 5,500 MW. Power from independent energy producers was bought for 5.6 cents per 1 kWh, the average power tariff. According to preliminary estimates, power will cost 3 cents per 1 kWh (when the hydropower projects in Kyrgyzstan are completed). This means that if the country exports 10 to 15 billion kWh, it will earn \$25-45 million every year.

When the Central Asian Cooperation Organization merged with EurAsEC, and when Uzbekistan joined it, the EurAsEC members deemed it necessary to discuss and create mechanisms of coopera-

tion in the sphere of water and power regulation. To achieve this they have already drafted the Conception of Efficient Use of Central Asia's Water and Power Resources and the Road Map of the Cooperation Mechanism among the EurAsEC Members in Water and Power Regulation in the region. The principles of cooperation and its aims are rooted in the Treaty of Parallel Functioning of the CIS Power Systems of 25 November, 1998 and the Agreement on Power Transit and Capacities of the CIS Members of 25 January, 2000 signed by the Council of the CIS Heads of State.

To achieve integration according to the international legal standards of water use with due account for the Central Asian specifics, all the related issues should be discussed on the basis of the drafted Conception and elaboration, coordination, and signing of the amended long-term Intergovernmental Agreement on the Use of Syr Darya Water Resources of 17 March, 1998. This work has been in progress since 2006. The drafts have already been discussed by experts of the EurAsEC members and declined as needed coordination with the plenipotentiary representatives of all the members.

The currently drafted Agreement on the Naryn-Syr Darya Basin, which is expected to develop the power resources market, should contain provisions of its long-term nature, as well as direct admissions by Kazakhstan and Uzbekistan of their duty to pay for annual and long-term water accumulation services. Today, Kyrgyzstan is carrying a burden that is too heavy for its economy. The new Agreement should also envisage a more efficient mechanism for settling disputes and disagreements through international arbitration.

Today, the EurAsEC members that signed the Plan of Concerted Actions to create a common energy market (endorsed by the EurAsEC Interstate Council on 28 February, 2003) are drafting a Strategy for Development of the Fuel and Power Complexes up to 2020. It is expected that the Strategy will identify well-substantiated priority measures and the stages and milestones on the road toward a Single EurAsEC Power Expanse. The document will also deal with the scientific-technological, social, economic, and other aspects of the emerging common power market, rational use of the fuel and power resources, energy security of the CIS countries and their development, regulation of the CA regional water and power resources, and improvement of the regulatory and legal framework of interstate relations.

The following important international documents contain the principles of the common energy market: the European Energy Charter of 17 December, 1991 and the Energy Charter Treaty of 17 December, 1994 enacted in 1997. The Treaty identifies the basic principles of power trade, cooperation in the energy sphere, energy efficiency, and environmental protection. These documents signed by five Central Asian states were ratified by three of them (Kazakhstan, Kyrgyzstan, and Uzbekistan).

If observed, the basic principles of trade in the energy sphere will help to implement the energy strategy of the Central Asian countries, which includes thermal power stations in Kazakhstan and Uzbekistan, large hydropower stations in Kyrgyzstan and Tajikistan, a wholesale energy market, and an energy pool or energy and power-generating capacities stock exchange in Central Asia. The UES of Central Asia represented by its executive and technological structure, United Control Center Ener-gia, should stick to objective principles and develop into an independent systemic operator of the region's wholesale power and power-generating capacities market; it is also expected to ensure parallel functioning of the UES of Kazakhstan and Russia.

Cooperation with Gazprom of Russia (under the Memorandum of Intent to set up a Russian-Kyrgyz JV together with the Kyrgyzgaz and Kyrgyzneftegaz public joint-stock companies) will make it possible to supply the Kyrgyz economy at some time in the future with 800-850 million cu m of imported natural gas every year.

Fully-fledged interstate entities able to rationally use the region's fuel, energy, and power resources, to ensure sustainable power and water supply, and to carry out long-term investment policies should be created as an important cooperation mechanism.

In November 2004, at the Dushanbe summit, the heads of state signed an agreement on the International Water and Energy Consortium of the Central Asian countries and Russia. This will make it possible to deal with the Kambarata hydropower project and its commissioning as a power-generating unit coordinated with the Toktogul hydropower system as an irrigation unit in a way acceptable to the Kyrgyz Republic. Russia intends to fund part of the Kambarata project and is interested in hydraulic equipment supplies.

The International Consortium may develop into a financial and insurance mechanism able to guarantee sustainable water and power exchange under corresponding agreements. It will also supply the means and instruments needed to pass adequate decisions. Water discharge from the reservoirs as well as fuel and power supplies should be based on mutual settlements in hard currency realized according to the “state-consortium-bank” scheme. Mutual settlements in hard currency and financial monitoring will guarantee that the resources are supplied on time.

The countries should take firm and absolutely clear positions at the multilateral interstate talks on the use of water and energy resources and the reimbursement of expenses related to irrigation water supplies. This will promote joint large-scale investment projects and investment attractiveness of the Kambarata hydropower project. To succeed, Kyrgyzstan should pay adequate attention to its “energy” diplomacy and work hard to establish long-term interstate contacts in the energy sphere.