### Protocol

# of the Workshop for the Representatives of Water and Energy Authorities of the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tadjikistan and the Republic of Uzbekistan related to water and energy use issues in the forthcoming 1998/9 fall-winter season and 1999 vegetation period

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### **On behalf of Regional Authorities**

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#### On behalf of the Republic of Kazakhstan

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## On behalf of the Kyrgyz Republic

Davydov I. A.	First Deputy General Director of JSC "Kyrgyzenergo"
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## On behalf of the Republic of Tajikistan

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Workshop participants indicate that the current measures on mutual seasonal supply of electricity and energy resources between the Republics prevented Toktogul reservoir from being deeply drawn-down during the past fall-winter period; favorable weather conditions in 1998 ensured provision of irrigation services during the vegetation period in the Syr Darya basin and allowed the accumulation of water, its reserves increased by 6.5 billion cubic meters in comparison with the same period in 1997. Particularly, in Toktogul reservoir the increase was 3 billion cubic meters; in Kayrakum reservoir – 0.7 billion cubic meters; in Andijan reservoir – 1.1 billion cubic meters; and in Chardara reservoir – 1.7 billion cubic meters. At the beginning of the fall-winter period (October 1, 1998) the volume of water in Toktogul reservoir is expected to be at the level of 15.0 billion cubic meters, 3.2 billion cubic meters larger than in 1997.

As a result of the significant divergence from the forecasted water content during the vegetation period in the Syr Darya basin, the volume of water released from Toktogul reservoir was less than the Interstate Agreement of March 17, 1998 determined.

Moreover, out of 2.2 billion kWh of electricity indicated in the Agreement, gross power supply from the Kyrgyz Republic amounted to 598 million kWh (based on data of August 25, 1998), in particular, 167.5 million kWh of power was supplied to the Republic of Kazakhstan, and 430.6 million kWh of power was supplied to the Republic of Uzbekistan.

According to the offset (new) conditions the following was supplied to the Kyrgyz Republic from the beginning of 1998:

### from the Republic of Kazakhstan

power (electricity) - 150 million kWh coal - 150.4 thousand tons;

## from the Republic of Uzbekistan

natural gas - 501.2 million cubic meters power - 54.2 million kWh fuel oil - 15.2 thousand tons.

To prevent flooding of lands, facilities, and water discharge to the Arnasai depression, the BVO Syr Darya proposed that during the 1998-99 fall-winter period the gross water releases through Toktogul power generating station should be 6.0 billion cubic meters, and 6.5 billion cubic meters will be supplied for irrigation purposes during the 1999 vegetation period.

Based on the expected power consumption in the IV-th quarter of 1998 and 1999, and shortfalls in energy resource supplies from the neighboring republics ("Kyrgyzenergo" information), it is anticipated that during the 1998-99 fall-winter period water releases through the Toktogul power-generating station will be 9.5 billion cubic meters (3.5 billion cubic meters larger than BVO Syr Darya proposed), and during the vegetation period there will be released 3.7 billion cubic meters for irrigation purposes (2.8 billion of cubic meters less than BVO Syr Darya proposed).

During the 1997-98 fall-winter period 7.1 billion cubic meters was released through the Toktogul power-generating station.

Combining the energy and irrigation operation schedules for Toktogul reservoir during fall-winter and summer periods is possible if energy resources are supplied to power-generating stations in Bishkek and in Osh in volumes indicated for 1998 and 1999 in the Interstate Agreement, including:

natural gas – 600 million cubic meters; coal – 566 thousand tons; electricity – 250 million kWh; fuel oil - 20 thousand tons.

For the Republic of Kazakhstan, Uzbekistan and the Kyrgyz Republic to be able to receive 2.2 billion kWh of electricity during the vegetation period it is necessary to complete the 500 kV loop.

To ensure efficient water and energy use in 1998 - 99 fall-winter period, availability of water for irrigation in 1999, and conservation of water reserves remained in the current year, workshop participants propose:

1. To establish the following mean daily norms for water releases from the Toktogul reservoir:

1998/9 fall-winter period

October	– 250 cubic meters/sec;
November	– 390 cubic meters/sec;
December	- 500 cubic meters/sec;
January	- 540 cubic meters/sec;
February	- 520 cubic meters/sec;
March	- 400 cubic meters/sec;

1999 vegetation period:

April	- 300 cubic meters/sec;
May	- 230 cubic meters/sec;
June	- 500 cubic meters/sec;
July	- 650 cubic meters/sec;
August	- 600 cubic meters/sec;
September	- 100 cubic meters/sec.

To ensure the provision of the aforementioned releases during the vegetation period, 2.2 billion kWh of electricity is currently being transferred from the Kyrgyz Republic to the neighboring states, including:

To the Republic of Kazakhstan – 1100 million kWh, To the Republic of Uzbekistan – 1100 million kWh.

To implement the above mentioned power transfers, the Republic of Kazakhstan, Uzbekistan and the Kyrgyz Republic should solve the issue of completing the 500 kV loop and setting the terms of supplies.

- 2. To provide water supply in the volume of 800 million cubic meters for the Republic of Kazakhstan through the "Dustlik" canal during the vegetation period.
- 3. In order to ensure the provision of winter and summer releases and conservation of the remaining 1998 water reserves from Toktogul reservoir, representatives from the Kyrgyz Republic, the Republic of Uzbekistan, BVO Syr Darya and UDC "Energia" consider the following to be necessary:
  - 3.1. By the end of 1998, to complete the supply of energy resources to the Kyrgyz Republic in volumes indicated for year 1998 in the Interstate Agreement:

## from the Republic of Kazakhstan:

electricity	-250 million kWh;
coal	– 566.7 thousand tons.

#### from the Republic of Uzbekistan:

natural gas	– 772 million cubic meters;
fuel oil	-40 thousand tons.

If in 1998 the Republic of Kazakhstan partially fulfils its obligations on Karaganda coal supplies, in order to conserve water in Toktogul reservoir for 1999 irrigation period, coal supplies in the IV quarter should be accelerated;

3.2. In 1999, to supply:

## from the Republic of Kazakhstan:

electricity	– 250 million kWh, including:
I half-year, 1999	– 150 million kWh
II half-year, 1999	– 100 million kWh
Karaganda coal	- 566 thousand tons, including:
I quarter	-200 thousand tons,

II quarter	– 150 thousand tons,
III quarter	– 100 thousand tons,
IV quarter	– 116 thousand tons.

## from the Republic of Uzbekistan

natural gas	– 600 million cubic meters, including:
I quarter	– 190 million cubic meters,
II quarter	-110 million cubic meters,
III quarter	-100 million cubic meters,
IV quarter	- 200 million cubic meters
fuel oil	-20 thousand tons during summer time

The Kyrgyz Republic should consider the proposal of the Republic of Uzbekistan concerning the supply of the Kyrgyz coal for power-generating stations in Uzbekistan in 1998-1999 against offsets.

4. By May 31, 1999, the Republic of Tadjikistan will ensure the accumulation of 3,418 million cubic meters of water at Kayrakum reservoir, and water releases in accordance with the BVO Syr Darya operation regime.

The estimated power production insufficiency during the 1998-99 fall-winter period associated with the regimes of water accumulation and draw-down at Kayakum reservoir will be compensated by power transfers from the Republic of Kazakhstan and Uzbekistan to the Republic of Tadjikistan during March-April, 1999. "Barki-Tochik", UDC "Energia" and BVO Syr Darya will determine the estimated power insufficiency.

During the 1999 summer period the Republic of Tadjikistan will provide the return of electricity to the Republic of Kazakhstan and Uzbekistan (1:1). The volume, conditions of transfers and supplies will be additionally agreed between the Republic of Uzbekistan and the Republic of Kazakhstan.

Representatives of Kazakhstan and Uzbekistan consider that this proposal needs to be studied additionally and improved.

- 5. If needed, BVO Syr Darya and UDC "Energia" will adjust the regimes of water releases, agreed by the interested parties, and proceeding from the situation in energy and water economy.
- 6. If one of the parties does not fulfil its compensating obligations regarding the volume and terms of energy resource supplies, the Kyrgyz and Tadjik parties have a right to decrease the level of water releases from Toktogul reservoir and to change operation regimes of Kayrakum reservoir, respectively.
- 7. The current Protocol is prepared by the Governments of the participated parties for information and for necessary decision-making.

## **Special opinion**

Representatives from the Republic of Kazakhstan propose to consider the possibility of applying the following principles of cooperation:

- Electricity generated as a result of releases for irrigation purposes is sold at the free energy market of the Republic of Kazakhstan specifying the volume of electricity and water releases respectively;
- The Republic of Kazakhstan guarantees that the Kyrgyz Republic will have free access to energy and coal markets;
- In order to conserve and accumulate water in Toktogul reservoir during the winter period, the demands for electricity in the Kyrgyz Republic will be compensated by electricity supplies from the Republic of Kazakhstan based on interstate agreements.

Representatives of the Kyrgyz Republic, the Republic of Tadjikistan, and the Republic of Uzbekistan cannot agree with this special opinion of the representatives of the Republic of Kazakhstan, as it conflicts with Articles 2, 4, 5 of March 17, 1998 Water and Energy Use Interstate Agreement.

Signatures:

## **On behalf of Regional Authorities**

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#### On behalf of the Republic of Kazakhstan

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## On behalf of the Kyrgyz Republic

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## On behalf of the Republic of Tadjikistan

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