



NUREK HPS: Forecast of electricity supply for spring

Silsilamo Vazirbekova
Barqi Tojik

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NUREK HPS Water Reservoir





Nurek HPS is one of the largest stations in Central Asia with a unique hydraulic structures
parameters of hydroelectric:

- The design capacity of the reservoir at 910m NEC - 10.5 billion m³;
- Surface area - 98 km²;
- Length - 70 km;
- Usable capacity of the reservoir - 4.5 billion m³;
- Power of station— 2700mVt after upgrading 1983. - 3000mVt.



The selected alignments, the Vakhsh river has the following characteristics

- Term average annual runoff - 20.5 km^3
- Average annual outflow- $645 \text{ m}^3 / \text{sec}$.
- The maximum observed flow - $3730 \text{ m}^3 / \text{sec}$.
- The minimum observed flow - $120 \text{ m}^3 / \text{sec}$.
- Average annual electricity production - 11.2 billion kWh.
- Hydraulic drop max - 275m.
- Min - 205m.
- Medium - 223m.
- Indication ▼ НПУ in the reservoir - 910m.
- ▼ УМО – 857m.
- Estimated flow of outwater through the hydroelectric power station - $1350 \text{ m}^3 / \text{sec}$.
- Number of units - 9.



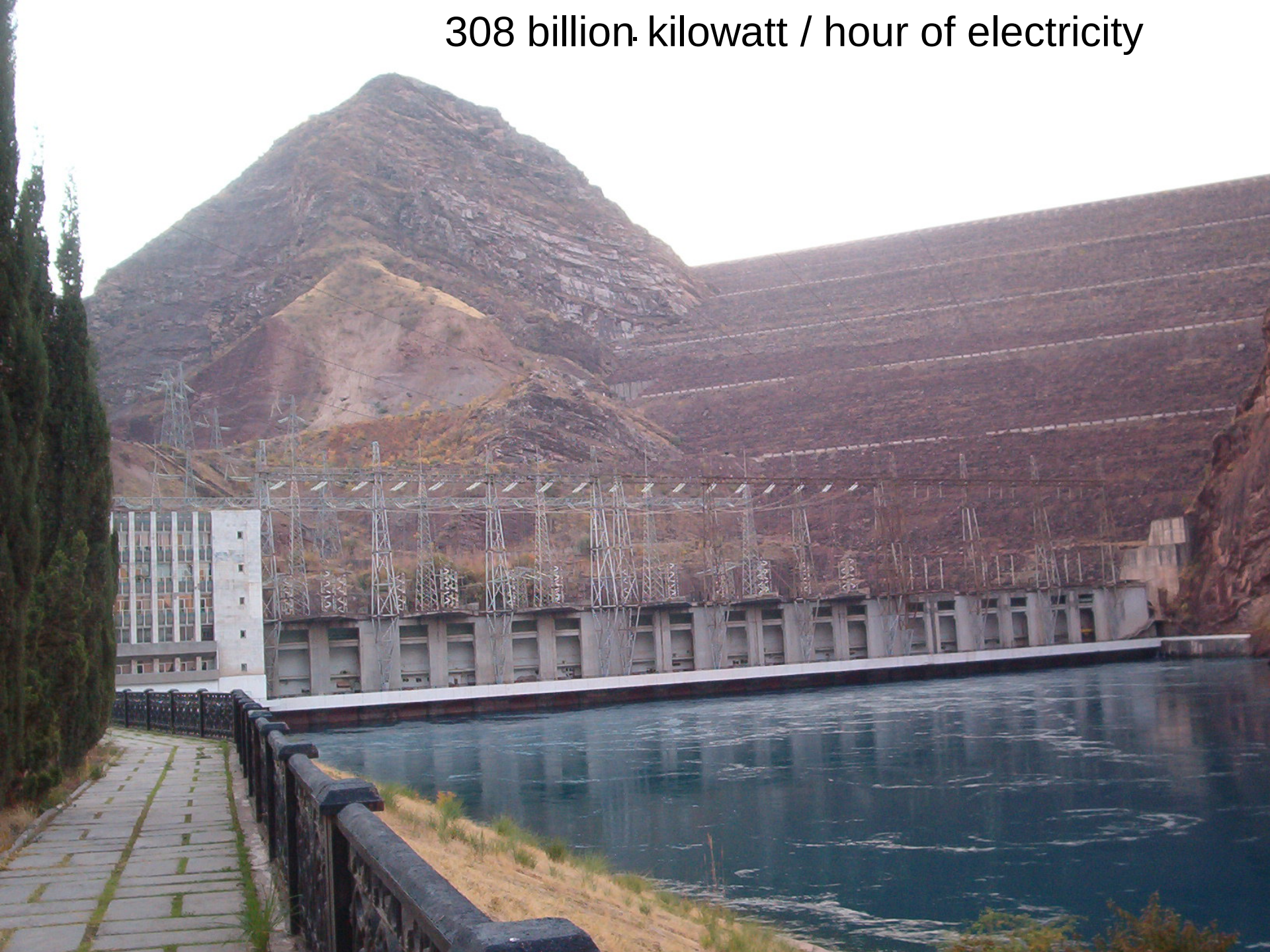
- By the decision of the International Conference ICOLD in 2010, NUREK HPS has been given a certificate of quality and dam of the station was assessed as “the best achievement of engineering”



The water outlet/spillway facilities consists of:

- Two catastrophic spillway tunnel type, located above the building of tunnels, one of which is deep, the other - with a surface water intake, for on the total water pass of $4040 \text{ m}^3 / \text{sec}$, with flood discharge flow of 0.01% of security value of $5400 \text{ m}^3 / \text{s}$

308 billion kilowatt / hour of electricity





Sediments to the district of Shakhtut loop

April 20, 2011.

March 9, 2011

Фото Ищук Н. Р.



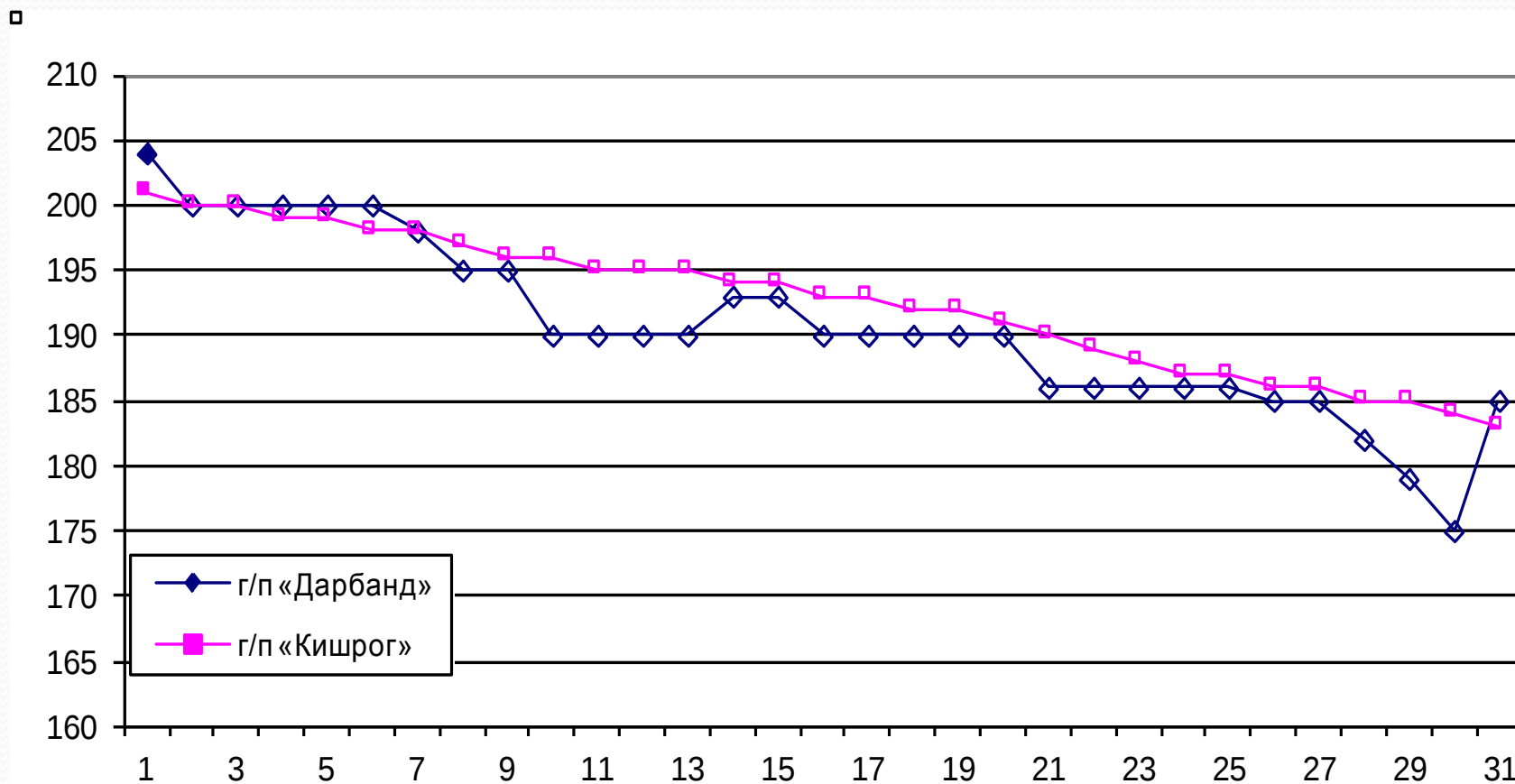


**Sediments of clay
and silt in the upper
reaches of the Nurek
reservoir**

Photo: Ishuk



Comparison of water consumption in the Vakhsh River in January 2012 (m³/sec)



Electricity Supply for Spring:

- According to project data at this point in the reservoir water is 6800.75 million m³.
- Water storage in the reservoir and the flow of the Vakhsh River are within normal limits.
- Limit of electricity supply for the spring period will remain according to the schedule approved by the Government.



Thank you for Attention