

European Bank for Reconstruction and Development will support €37 million in costs for rehabilitation projects at the Belmeken-Sestrimo-Chaira hydro complex and Vacha-1 hydropower facility in Bulgaria, according to an EBRD procurement update notice. According to EBRD, Bulgaria's state-owned National Electricity Co. intends on using the proceeds of the grants provided by Kozloduy International Decommissioning Support Fund, which EBRD administers under grant agreement No. 049A. NEK will also use its own financial sources towards the rehabilitation.

KIDSF will provide 70% of the financing and NEK will fund the remaining 30%.

EBRD said the process will require procurement of activities such as design, manufacture, delivery, installation, supervision, setting, testing and commissioning of different equipment and systems for the following hydropower plants:

#### 864-MW Chaira pumped storage

The rehabilitation includes plant control and monitoring system, relay protections, unit excitation system, vibration monitoring and analyses system of the units, generator/motor 19-kV switchgears and nodal 19-kV switchgears for control and protection of the units, service water feeding pumps, electric energy metering systems, ventilation systems, common auxiliary equipment and materials; disassembly, machining and installation of components of the turbine equipment and the automatic speed and active power regulation system of the units.

#### 75-MW Belmeken pumped storage

The rehabilitation includes local automation equipment and oil pressure systems for control of spherical valves and their auxiliary valves, local automation equipment and oil pressure systems for control of mechanical brakes, nozzles, needles, deflectors and hydraulic cylinders of the deflectors, unit excitation systems, local automation equipment and oil pressure system for control of the gear-type couplings, speed governors and work stations, control systems and generator circuit breakers.

#### 240-MW Sestrimo

Local automation equipment and oil pressure systems for control of the spherical valves and their auxiliary valves, local automation equipment and oil pressure systems for control of mechanical brakes, nozzles, needles, deflectors and hydraulic cylinders for the deflectors, unit excitation systems, speed governors and work stations, control systems and service water units for generator cooling.

#### 120-MW Momina Klisura

The rehabilitation will include local automation equipment and oil pressure systems for control of the spherical valves and their auxiliary valves, unit excitation systems, speed

## Bulgaria: EBRD will support US\$39.5 million in hydropower rehabilitation projects

governors and work stations, control systems, service water units for generator cooling, hydraulic cylinders for guide vanes and turbine discharge valves, oil-free self-lubricating bearing elements to the turbines and spherical valves.

### 14-MW Vacha-1 facility

The rehabilitation includes new 110-kV high-voltage equipment: disconnectors, circuit breakers, surge arresters, power lines protections for the Vacha -1 switchyard; and telecommunication equipment and electric metering equipment. Units 1 and 2 rehabilitation includes control and excitation systems, turbine governors, relay protections and other turbine equipment.

Procurement is expected to begin in the second quarter of 2017.

source: [hydroworld.com](http://hydroworld.com)