

# Serbia: Implementation of the group active power regulator at the Djerdap 1 HPP

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Group regulators of active and reactive power are essential components of local power plant control, maintaining the total active or reactive power at a given value, together with even distribution depending on the generator set characteristics. In addition, it is also an important element of the existing system of the secondary active power regulation located at the National Control Centre operated by Elektromreza Srbije.

As part of the Djerdap HPP rehabilitation, started in 2010, group regulation of active power was implemented and tested. In Djerdap 1 from March 2001 until December 2014, digital power allocation regulator was in operation. Given that service life of this system expired, and there are no spare parts, while the revitalized generator sets need to be included into the secondary regulation system possessing digital turbine regulators, this system had to be procured.

In addition to presenting the algorithm of the group active power regulation, also describe the hardware and software roll out, resting procedures and results, and finally describe first experiences from the use of the new group active power regulator.

The new group active power regulation system of Djerdap 1 was installed in autumn 2014. It has successfully passed SAT testing and now it is in daily operation. Throughout its future operation, along with the revitalization of the remaining generator sets, GRAS operation needs to be monitored and control parameters possibly fine-tuned thus taking into account generator sets revitalized later, transmits Serbia-energy.eu