

<b>Employer:</b>	"NEK" JS Co.
<b>Project:</b>	"Yadenitza" Dam
<b>Subproject:</b>	"20 kV "Yadenitza" main substation" Design and performance of telemetrical system for monitoring and control of 20 kV "Yadenitza" main substation
<b>Design:</b>	
<b>Main contractor:</b>	"Start engineering" JS Co.
<b>Subcontractors:</b>	"Stanilov" Ltd.
<b>Kinds of activities:</b>	Delivery of facilities and equipment, building installation works, electrical installation works, starting up, adjustment and introduction works, performance of telemetrical system
<b>Performance:</b>	Finished in 2001.

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### **Short information concerning the project:**

"Yadenitza main substation" is intended to provide stable power supply of the forthcoming building works on Yadenitza dam construction. It represents indoors switchgear, consisting of 8 cells, control room, sanitary rooms and offices. The delivery of facilities and equipment, building installation works, electrical installation works, starting up, adjustment and introduction works were performed by specialists of "Start engineering", JS Co. - Plovdiv branch, with subcontractor on the building part "Stanilov" Ltd.

"Start engineering" JS Co. - Sofia branch performed design and commissioning of the telemetrical system of "Yadenitza" main substation on the basis of PLC - ABB series 50, which gathers, processes and sends information of the facilities and equipment and allows remote control from "Belovo" substation to be performed. The system performs the functions of remote signaling, remote control, telemetry and visualization.

The system for automated control is performed by means of Operator's Station (OS), located in the control room of "Belovo" substation. It is used to observe the condition of the facilities and equipment in the separate cells, to perform remote control of the facilities that are subject to such control, the instantaneous consumption of active and reactive power with the purpose to optimize the circuit and the instantaneous value of current and voltage.

The Panel of Automated Control System is equipped with a low class programmable controller (PLC) of ABB 07KR51 and expansion station ICMK14F1.

The OS is built on the basis of a PC and a product for visualization Intouch + IOserver.



