

KORONA

AVČE PUMPED STORAGE HYDRO POWER PLANT

Control System for Unit and Auxilliary Systems



CONTRACTOR

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SCOPE OF WORK

For the new Avče PSP Korona designed, assembled and put into operation a Control System for the unit (Unit Controller) and for auxiliary systems (drainage, first filling, cooling water, oil purification system) including MCC equipment for the mentioned systems.

Control System is integrated in overall power plant system and connected to the control center in Nova Gorica what enables remote controlled operation of HPP. Producer of hardware and system software is SIEMENS, for Unit Controller redundant SIEMENS AS 417H is used and for implementation of Control System SIEMENS PCS7 system is used.

Beside acquisition of the process data, visualization of data on a touch screen and archiving of data Control System performs also the following functions: start and stop of the unit in pump mode, pump compensator mode, generator mode and generator compensator mode, direct transition from pump to generator mode and opposite, control of active (ALR) and reactive power or grid voltage (AVQC) of the unit. Control System also takes care for starting and stopping pump/turbine and motor/generator auxiliary equipment (oil pumps, water pumps, strainers, blowers, valves, heaters ...).

Auxiliary systems cover automatic drainage system with emergency operation function, cooling water supply with reserve cooling water system from penstock, automatic first filling procedure for first filling of the penstock.

