Project: First Stage of SCADA/COMMUNICATION

Customer: ABB AB Network Management (Sweden)

Years: 2008-2011

Performed works:

- Removal of debris (of old equipment), clearing position for the new equipment
- Digging of cable routes in outdoor switchyards
- Erection of cubicles including preparatory civil works
- Installation of cubicle support bars, cable trenches and cable ladders
- Earthing of cubicles and wall mounted panels
- Installation of cables between RTUs and plant sources, between AC/DC distribution and RTUs and between RTUs and Telecom cabinets
- Fitting of glands for a/m cables
- Termination, applying ferrules/lugs of cables and wires
- Installation of transducers and auxiliary relays (in plant cubicles) as applicable
- Termination and testing of modified circuits in plant
- Wiring check of all installed cables/wiring (continuity test)
- Testing of new and existing equipment such as transducers, command interposing relays, indication and alarm relays
- Installation of RTU, battery, battery charges and generators
- Testing of each signal from plant source up to terminals in the SCADA equipment
- Red-marking of installation/commissioning drawings

Project: First Stage of SCADA/COMMUNICATION

Customer: ELTEL Networks Oy (Finland)

Years: 2008-2011

Performed works:

- Installation of cables (including fixing)
- Installation of OPAC cable in the pipe
- Works for DPLC (Hrazdan HPP - Sevan HPP)
- Works for the existing DPLC (SS Agarak - SS Shinuair)
- Works for the existing DPLC (Spandaryan HPP - Shamb HPP)
- Digging and preparation of the trench for the OPAC cable
- Civil works for DPLC
- Manufacturing and installation of foundations

Project: Rehabilitation of 110 kV substation Vanadzor-1

Customer: SIEMENS AG (Austria)

Years: 2009-2010

Performed works:

- Delivery and installation of 110 kV power equipment (power transformers, rotary disconnectors, current transformers, voltage transformers, surge arresters and support insulators)
- Delivery and installation of all cable connections
- Delivery and installation of power, control and protection cables
- Installation of new control equipment
- Delivery, installation and commissioning of all terminal boxes for the measuring transformers
- Replacement of all earthing devices including connection of new equipment and all portals
- Installation of lighting system
- Delivery and installation of the secondary switchgear
- Delivery, installation and commissioning wave-layers for 220 kV PLC transmission including the fixing and earthing equipment
- Commissioning of PLC equipment
- Delivery and installation of foundations under the power equipment

Project: “Kajaran/Armenia.110/35/6 kV substation “Combine”

Customer: AREVA Energietechnik GmbH (Germany)

Years: 2009-2010

Performed works:

- Site supervision for installation part of the works

Project: UNIT N5 of Hrazdan TPP

Customer: JSC “Interautomatika” (Russian Federation)

Years: 2010-2011

Performed works:

- Installation of control, measurement and automation equipment of main building, Heller tower, cost pump station, gas regulatory and gas preparatory buildings, chimney, pressurized air compressor building
- Installation of power supply panels and UPS equipment of technical programming complex
- Installation of controller cubicles, communication devices, intermediary terminals, intermediary relays, secondary converters of mechanical quantities and vibrations, over speeding protection
- Installation of network equipment panels
- Installation of control panels
- Installation of technical programming complex components on the unit control panel, including installation of the common usage screens
- Installation and connection of power supply cables of technical programming complex
- Installation and connection of network cables
- Installation of power unit simulator equipment
- Installation of the communication systems with the local control systems (gas turbine, gas pressurizing station, erection system and synchronization of the steam turbine generator, switchyard 220 kV, water heating boiler)

Project: “Kajaran/Armenia. 110/10 kV Substation “Aghats”

Customer: AREVA Energietechnik GmbH (Germany)

Years: 2009-2010

Performed works:

- Site supervision for installation part of the works