

# REFERENCE LIST Other fields



COOLING WATER PLANT TC- Koromačno, HOLCIM	Croatia	<ul><li>Final electrical design</li><li>Reconstruction of TS-5</li></ul>
TC- Koromačno,		-
HOLCHVI		- Reconstruction of compressor station
		- Commissioning and testing
		- Approval documentation
Terminal for oil	Algeria	- Main and final design
repumping		- Supervision
"BEJAIA"-Algeria		- Transformer station 35/5,5 kV, 2 x 8 MVA
		- Delivery of MCC for LV motors
		- Delivery of hardware and software for two PLC units for multistart control system (122 DI/56 DO)
		- Delivery of 4 soft starters for 11 motors 5,5 kV, 140 A
		- Startup and commissioning
Automatic control of	Croatia	- Main and final design
reception, milk		- Supervision
pasteurization, CIP station "NOVI		- Delivery of PLC hardware and software (720 DI/320 DO,24 AI,4 AO, TOUCH SCREAN)
DOMIL", VINDIJA, Županja		- Assembly and start-up
"JANAF"- Pipeline Jadranski naftovod d.d Zagreb	Croatia	<ul> <li>Project documentation for reconstruction of electrical plants and control on terminals Omišalj, Sisak and Virje, and pump stations Melnice and Dobra</li> <li>Technical documentation consists of:</li> <li>Technical description and calculations</li> <li>Single line diagrams for 35kV, 6kV, 0,4kV, 110 VDC plants</li> <li>Arrangement drawing for 35kV, 6kV, 0,4kV, VDC plants</li> <li>Wiring diagrams for 35kV, 6kV, 0,4kV, 110 VDC plants</li> <li>Equipment list for 35kV, 6kV, 0,4kV, 110 VDC plants</li> <li>Cable list for 35kV, 6kV, 0,4kV, 110VDC plants</li> </ul>
	repumping  "BEJAIA"-Algeria  Automatic control of reception, milk pasteurization, CIP station "NOVI DOMIL", VINDIJA, Županja  "JANAF"- Pipeline Jadranski naftovod	repumping  "BEJAIA"-Algeria  Automatic control of reception, milk pasteurization, CIP station "NOVI DOMIL", VINDIJA, Županja  "JANAF"- Pipeline Jadranski naftovod











Date	PLANT	COUNTRY	ACTIVITIES
2006	GRAIN MILL FARINA Mill reconstruction	Croatia	<ul> <li>Electrical design</li> <li>Fabrication of MCC for 120 motor drives</li> <li>Delivery of hardware and software for PLC system (640 DI/ 240 DO, 16 AI/8 AO, Ethernet)</li> <li>SCADA software with 8 process images, over 1600 tags, report generation, development of data base and connection with business software</li> <li>Motor drives (frequency converters 12 pcs, soft starters 30 pcs. in range of 11-132 kW)</li> <li>Control system (PLC) + SCADA</li> <li>Low voltage distribution in 10 fields</li> </ul>
2007	FINVEST Gerovo Bio pellet factory	Croatia	<ul> <li>Main and final design</li> <li>Transformer station 20/0,4 kV, 3 x 1600 kVA</li> <li>MCC for 200 electromotor drives</li> <li>Hardware and software for PLC (800 DI/400 DO, 30 AI/24 AO, Profibus and Ethernet communication)</li> <li>Workstation with 3 displays and development of SCADA software</li> </ul>
2007	GRAIN MILL KOPANICA Mill reconstruction	Croatia	<ul> <li>Electrical design</li> <li>Fabrication of MCC for 150 motor drives</li> <li>Delivery of hardware and software for PLC system (720 DI/ 320 DO, 24 AI/16 AO, Profibus and Ethernet)</li> <li>Delivery of workstation and SCADA software 8 process images, over 1600 tags, report generation, development of data base and connection with business software</li> <li>Motor drives (frequency converters 12 pcs, soft starters 30 pcs. in range of 11-132 kW)</li> <li>Control system PLC + SCADA</li> <li>Low voltage distribution in 10 fields</li> </ul>













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2008	WOOD PROCESSING PLANT FINVEST Plant control system	Croatia	<ul> <li>Fabrication of MCC for 200 motor drives</li> <li>Delivery of hardware and software for PLC system (800 DI/ 400 DO, 30 AI/24 AO, Profibus and Ethernet)</li> <li>Delivery of workstation with 3 monitors and development of SCADA application</li> <li>20 process images, over 2500 tags, report</li> </ul>
			generation, development of data base and connection with business software  • Motor drives (frequency converters 20 pcs, soft starters 30 pcs. in range of 11-400 kW)  • Control systems (PLC) + SCADA  • Low voltage distribution in 18 fields
2008	KEK Priština, Coal mine Bardh, Excavator reconstruction and control	Kosovo	<ul> <li>Main and final design</li> <li>Supervision</li> <li>MCC development</li> <li>Delivery of hardware and software for PLC (160 DI/90 DO, 16 AI/8 AO, Profibus and Ethernet communication)</li> <li>Delivery of 10,4" touch panel</li> <li>Assembly and start-up for</li> <li>Motor drives</li> <li>Control system (PLC and HMI)</li> </ul>
2009	ELEM Skopje TG1 &TG2 for ALSTOM Croatia 15 MW steam turbine reconstruction and control	Macedonia	<ul> <li>Main and final design</li> <li>Fabrication of switchgear for turbine</li> <li>Delivery of hardware and software for PLC (64 DI/64 DO, 50 AI/8 AO, Profibus and Ethernet communication)</li> <li>Workstation delivery and SCADA software development</li> <li>PLC + SCADA + OP + WOODWARD control system</li> <li>Special measurement system BENTLY NEVADA</li> </ul>













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2010	MILK FACTORY VINDIJA Automatic control system for pasteurization line	Croatia	<ul> <li>Programming of the PLC and HMI system</li> <li>Incorporating new functions into existing control algorithms and connecting new control panel with other panels via Ethernet</li> </ul>
2011	EXCAVATOR SRS- 400 E7 Coal mine Sibovac for KEK Priština, Reconstruction and control of coal excavator	Kosovo	<ul> <li>Main and final design</li> <li>Supervision</li> <li>Delivery of 6kv TS &amp; LV MCC</li> <li>Delivery of hardware and software for PLC (200 DI/80 DO, 16 AI/8 AO, Profibus and Ethernet communication)</li> <li>Delivery of hardware and software for touch panel (10,4")</li> <li>Delivery of intercom system</li> <li>Delivery of video system</li> <li>Assembly and start-up</li> </ul>
2011	BELTS WAGON BRS-1600 E Coal mine Sibovac for KEK Priština, Reconstruction and control of belts wagon	Kosovo	<ul> <li>Main and final design</li> <li>Supervision</li> <li>Delivery of 6kV TS &amp; LV MCC</li> <li>Delivery of hardware and software for PLC (160 DI/72 DO, 16 AI/8 AO, Profibus and Ethernet communication)</li> <li>Delivery of hardware and software for touch panel (15")</li> <li>Assembly and start-up</li> </ul>
2011	UNIVERSITY OF ZAGREB (SC) Reconstruction of heating station control system	Croatia	<ul> <li>Construction of a new control panel according to the existing design</li> <li>Installation of cable trays, cables, equipotential bonding, lighting, sockets and other equipment</li> <li>Commissioning and measurements</li> </ul>
2011	THERMAL POWER PLANT JERTOVEC for ALSTOM Croatia Design and supply of turbine panel	Croatia	<ul> <li>Main and final design</li> <li>Fabrication of electric switchgear panel</li> <li>Delivery of touch panel and installation equipment</li> <li>Factory testing of the panel</li> <li>Installation of equipment in power plant</li> </ul>











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2011	MILK FACTORY VINDIJA Automatic control system for yogurt fermentation and storage line	Croatia	<ul> <li>Programming of the PLC and HMI system</li> <li>Incorporating new functions into existing control algorithms and connecting new control panel with other panels</li> </ul>
2011	GRAIN MILL FARINA Transportation line control system	Croatia	<ul> <li>Main and final design</li> <li>Fabrication of power &amp; control panels</li> <li>Delivery of hardware and software for PLC control system</li> <li>Upgrade of existing SCADA system, touch panel software development</li> <li>Installation</li> <li>Commissioning and start-up</li> </ul>
2012	LIVESTOCK FOOD STORAGE KRMIVA Automatic control system for silos and drying plant	Croatia	<ul> <li>Main and final design</li> <li>Fabrication of power &amp; control panels</li> <li>Delivery of hardware and software for PLC control system</li> <li>Software development</li> <li>Installation</li> <li>Commissioning and start-up</li> </ul>
2012	MILK FACTORY VINDIJA Automatic control system for Kwark cheese production	Croatia	<ul> <li>Programming of the PLC and HMI system</li> <li>Incorporating new functions into existing control algorithms and connecting new control panel with other panels</li> </ul>
2012	OIL PIPELINE JANAF PS Melnice	Croatia	- Preliminary and main project design for replacement of 35kV electrical plant
2012	OIL PIPELINE JANAF Terminal Omišalj	Croatia	- Preliminary and main project design for replacement of 35kV electrical plant









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2012	THERMAL POWER PLANT JERTOVEC for ALSTOM Croatia Design and supply of turbine panel (block 2) THERMAL POWER PLANT KOSOVO A Ash transport	Croatia	<ul> <li>Main and final design</li> <li>Fabrication of electric switchgear panel</li> <li>Delivery of touch panel and installation equipment</li> <li>Factory testing of the panel</li> <li>Installation of equipment in power plant</li> <li>Electrical design</li> <li>Equipment delivery: Heating, air conditioning, Fire detection, lighting, cable protection and</li> </ul>
2013	System  THERMAL POWER PLANT KOSOVO B Delivery of LV MCC  BARTEC Varnost	Kosovo	cable tray systems, lightning protection  - Electrical design, fabrication and installation of three 0.4kv MCC in water treatment plant (WTT)  - OCW01 – 4420x2200x600mm  - ODF01 – 4462x2250x680mm  - ODG01 – 8130x2250x680mm  - Main and final design
			<ul> <li>Delivery of 7 soft-starters 6 kV, 200 A</li> <li>Field testing, commissioning &amp; start-up for:</li> <li>3 x Motor drives 670 kW, 6 kV</li> <li>4 x Motor drives 250 kW, 6 kV</li> </ul>
2014	GRAIN MILL FARINA Silos transportation line control system	Croatia	<ul> <li>Electrical design</li> <li>Fabrication of MCC for 80 motor drives</li> <li>Delivery of hardware and software for PLC control system</li> <li>Control system PLC + SCADA</li> <li>Installation</li> <li>Commissioning and start-up</li> </ul>











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2014	MAJOR OVERHAUL	Turkey	- Main and final design
	OF ST 12,5 MW		- Fabrication of electric switchgear panel
	KARDEMIR,		- Factory testing of the panel
	KARABUK for		- Installation of equipment
	ALSTOM Croatia		3, 4, 4
	Design and supply		
	of turbine panel		
2014	RECONSTRUCTION	Croatia	- Main and final design
	OF VENTILATION		- Fabrication of power & control panel
	SYSTEM IN HYDRO-		- Delivery of hardware and software for PLC
	ELECTRIC POWER		control system and VFD drives
	PLANT, for HEP		- Software development
	Proizvodnja d.o.o.		- Installation
			- Commissioning and start-up
2015	PETROCHAD - LOGONE RIVER Radio Telemetry and Solar Power System	Chad	<ul> <li>Electrical design</li> <li>Fabrication of power and control cabinets for four autonomous stations powered via solar panels</li> <li>Delivery of batteries, solar panels, solar chargers, inverters, structures, PLC and telemetry equipment</li> <li>Installation of system</li> <li>Factory and functional testing</li> </ul>
2016	GRAIN MILL FARINA	Croatia	- Electrical design
	Mill control system replacement		- Change of Hitachi PLC system with Siemens distributed system
			- Profinet communication between CPU and remote IO modules
			- Profinet communication between other PLC systems in plant
			- Decrease in number of cabling in main cabinet
			- Reconfiguration of existing CITECT SCADA system
2016	KOKA Varaždin – Plant for breaded meat products	Croatia	- Replacement of electrical and control cabinets damaged in fire











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			- Fabrication of 4 cabinets: Oven panel, Fryer panel, Gyrofreeze panel and transport line panel
			- Configuration of PLC systems and VFDs
			- Commissioning
2016	LUG – Silos and	Croatia	- Main and final electrical design
	dryer facilities		- Fabrication of control and electrical cabinet
			- Installation of cables, cable ducts, etc.
			- Commissioning of transportation line and dryer
2016	Mill Pukanic – Grain	Croatia	- Main and final electrical design
	storage plant		- Fabrication of control and electrical cabinet
			- Installation of cables, cable ducts, etc.
			- Commissioning of transportation line
2016	Čakovečki Mlinovi –	Croatia	- Main and final electrical design
	Grain storage plant		- Fabrication of control and electrical cabinet
			- Delivery of hardware and software for PLC
			system - Delivery of workstation and SCADA application,
			over 700 tags, report generation, data base
			with connection with existing business
			application
			- Monitoring of production from two screens in
			command center
2016	VINDUA Daim ralant	Constin	- Installation and commissioning
2016	VINDIJA Dairy plant  Modernization of	Croatia	<ul> <li>Optimization of control process</li> <li>Change of process control from Hitachi PLC to</li> </ul>
	control system		Siemens PLC (ET200SP)
	Control system		- Communication with existing Hitachi PLC
			system
			- New process lines programming
			- HMI development









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2017	PIKO Chicken manure pellet plant	Croatia	<ul> <li>Main and Final electrical design</li> <li>Fabrication of power and control panel</li> <li>Delivery of hardware and software for PLC system</li> <li>Installation and commissioning</li> </ul>
2018	GALA Poultry farm silos/dryer/mixing plant	Croatia	<ul> <li>Reconstruction and modernization of control system</li> <li>Design and production of electrical and control cabinet for new silos / dryer facilities</li> <li>Delivery of hardware and software for PLC system</li> <li>Integration of 2 SCADA stations</li> </ul>
2019	KNEŽEVIĆ Silos and dryer facilities	Croatia	- Design and production of electrical and control cabinet for new silos / dryer facilities
2019	KOLIĆ Silos and dryer facilities and mixing plant	Croatia	<ul> <li>Design and production of electrical and control cabinet for new silos / dryer facilities</li> <li>Design and production of electrical and control cabinet for new mixing plant</li> <li>Delivery of hardware and software for PLC system</li> <li>Installation and commissioning</li> </ul>
2020	Čakovečki Mlinovi – Grain storage level measuring and reporting system	Croatia	<ul> <li>Design and fabrication of control cabinet</li> <li>Delivery of EX radar level sensors and transmitters</li> <li>Delivery of hardware and software for PLC system</li> <li>Delivery of workstation and SCADA application, report generation, data base in manager's office</li> <li>Monitoring from operator screen in Mill control room</li> <li>Installation and commissioning</li> </ul>













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2020	VINDIJA Dairy plant Modernization of control system	Croatia	<ul> <li>Optimization of control process</li> <li>Change of process control from Hitachi PLC to Siemens PLC (S7-1500)</li> <li>Communication with existing Hitachi PLC system</li> <li>HMI development</li> </ul>
2021	BIĆANIĆ Mixing plant	Croatia	<ul> <li>Design and fabrication of electrical and control cabinet</li> <li>Delivery of hardware and software for PLC system</li> <li>Weighing and mixing application development</li> <li>Installation and commissioning</li> </ul>
2021	JOZIPOVIĆ Silos and dryer facilities	Croatia	<ul> <li>Design and production of electrical and control cabinet for new silos / dryer facilities</li> <li>Delivery of hardware and software for PLC system</li> <li>Installation and commissioning</li> </ul>
2021	HPP Pueblo Whitlock Hydroelectric Power Plant	USA	<ul> <li>Production of 6 UL certified power and control cabinets</li> <li>Factory Acceptance test</li> </ul>
2022	GRAIN MILL FARINA Reconstruction of power and control cabinet CITECT SCADA conversion GRAIN MILL KOPANICA Siemens SCADA and	Croatia	<ul> <li>Electrical design</li> <li>Fabrication of MCC and control panel</li> <li>Delivery of hardware and software for PLC control system and Siemens SCADA</li> <li>Installation</li> <li>Commissioning and start-up</li> <li>Conversion of SCADA system</li> <li>Installation</li> <li>Commissioning and start-up</li> </ul>
	PC upgrade		- Commissioning and start-up











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2022	KELEČIĆ Conversion of mixing plant Toshiba control system to Siemens	Croatia	<ul> <li>Conversion of PLC/HMI system</li> <li>Installation</li> <li>Commissioning and start-up</li> </ul>
2022	HPP Bayang Nyalo Hydroelectric Power Plant	Indonesia	<ul> <li>Production of 6 power and control cabinets</li> <li>Factory Acceptance test</li> </ul>
2022	HPP Polemi Hydroelectric Power Plant	Albania	<ul> <li>Production of 9 power and control cabinets</li> <li>Factory Acceptance test</li> </ul>
2023	VINDIJA Dairy plant Cream line CIP, sterilization, pasteurization	Croatia	<ul> <li>Design and production of control cabinet</li> <li>PLC and HMI development</li> <li>Commissioning and start-up</li> </ul>
2023	HPP Emas Nova Hydroelectric Power Plant	Brazil	<ul> <li>Production and delivery of 2 x CUBIC</li> <li>Switchgears for 4900A/85kA, 1s</li> <li>Factory Acceptance test</li> </ul>
2023	HPP Great Zimbabwe Hydroelectric Power Plant	Zimbabwe	<ul> <li>Production of 6 power and control cabinets</li> <li>Factory Acceptance test</li> </ul>









Date	PLANT	COUNTRY	ACTIVITIES
2023	HPP Nam Mit Luong Hydroelectric Power Plant	Vietnam	<ul> <li>Production of 3 power and control cabinets</li> <li>Factory Acceptance test</li> </ul>
2023	HPP Saario Hydroelectric Power Plant	Finland	<ul> <li>Production of 6 power and control cabinets</li> <li>Factory Acceptance test</li> </ul>
2023	HPP Shkopeti Hydroelectric Power Plant	Albania	<ul> <li>Production of 14 power and control cabinets</li> <li>Factory Acceptance test</li> </ul>
2023	JAVA IVANEC Solar power plant	Croatia	<ul> <li>Design and production of 2 power distribution panels (800VAC, 2500 kW)</li> <li>Design and production of 1 control panel</li> <li>Factory Acceptance test</li> </ul>







