

UNITED ARAB EMIRATES:

Mina Rashid District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Rockwell Automation ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, and E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: EMAAR

Najmat District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WINCC SCADA System, WINCC

Historian System with Information Server, and E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Cooling

Abu Dhabi Airport District Cooling Plant Upgrade

Scope of Work: Upgrade the installed Rockwell Redundant ControlLogix PLC with ControlNet IO network to the latest Redundant PLC on Ethernet/IP IO network in addition to the upgradation of SCADA Systems and supply & implementation of Cyber Security Solutions to the entire DCP Network.

Solution: Replace the legacy 1756-L6x controller, ENBT, CNBR, SRM modules with 1756-L7x Controller, EN2TR, and RM modules and change all IO racks communication modules to be on Ethernet IP. Upgradation of FactoryTalk SCADA system and FactoryTalk Historian. Supply & Implementation of Demilitarized Zone (DMZ) for external networking with Disaster Recovery & Backup Server, TXONE End Point Protection.

Location: Abu Dhabi, United Arab Emirates

Client: Abu Dhabi Airports Company

SeaWorld District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system for the Process and the building services in addition to the SIL-3 ESD system to allow for the unmanned operation of the Plant.

Solution: Redundant Rockwell Automation ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, FactoryTalk Historian System with VantagePoint Reporting, SIL-3 S7400 Siemens Controllers with FS IOs for the ESD system and E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Danat District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Redundant Siemens S7400H PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, FactoryTalk Historian System with VantagePoint Reporting, and E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Cooling

First District Cooling Plant Expansion and Upgrade in Al Reem Island

Scope of Work: Upgrade the 2009-installed Rockwell Redundant ControlLogix PLC with ControlNet IO network to the latest Redundant PLC on Ethernet/IP IO network.in addition to the supply and installation of the instrumentation, IO capacity, for the newly installed chillers, pumps, and TES tanks and integration in the PLC logic, SCADA graphics, historian, and reporting.

Solution: replace the legacy 1756-L6x controller, ENBT, CNBR, SRM modules with 1756-L7x Controller, EN2TR, and RM modules and change all IO racks communication modules to be on Ethernet IP. Install new RIO panels based on 1794 Flex IOs to accommodate the newly installed equipment and TES tanks and the associated instruments from E+H. Integration of the new IOs with the redundant FactoryTalk SCADA system, FactoryTalk Historian and VantagePoint Reporting.

Location: Abu Dhabi, UAE

Client: PAL Cooling

Shams District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Siemens S7400H PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, FactoryTalk Historian System with VantagePoint Reporting, and E+H

Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Cooling

Jumeirah Village Circle (JVC) District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Siemens S7400H PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, FactoryTalk Historian System with Reporting, and E+H Instrumentation

system

Location: Dubai, United Arab Emirates

Client: Empower

Mirdiff Main District Cooling Plant Controls Upgrade

Scope of Work: Design, Supply, Installation, and Commissioning of the control system upgrade. **Solution:** Allen-Bradley CompactLogix PLC System; Rockwell Automation FactoryTalk View Site Edition

SCADA System, and E+H Instrumentation system

Location: Dubai, United Arab Emirates

Client: Empower

Abu Dhabi Airport District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Siemens/E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Abu Dhabi Airports Company

Warsan Village District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Dubai, United Arab Emirates

Client: Nakheel

Dubai Creek Harbour Development District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Dubai, United Arab Emirates

Client: EMAAR

Jumeirah Lake Towers District Cooling Plant 1

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system replacing the existing obsolete control system. **Solution:** Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, FactoryTalk Historian System with Reporting, and Siemens

Instrumentation system

Location: Dubai, United Arab Emirates

Client: Empower

Dubai Metro Green Line District Cooling Plants 10 & 11

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Palm Jumeirah Crescent District Cooling Plant 4 Controls Upgrade

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system replacing the existing obsolete control system. **Solution:** Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, FactoryTalk Historian System with Reporting, and Siemens

Instrumentation system

Location: Dubai, United Arab Emirates

Client: Empower

Saadiat Island District Cooling Plant DCP4

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, and Siemens/E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

Saraya Abu Dhabi Cornish District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, and Siemens/E+H Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

ADNEC Capital Center District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

Shams Abu Dhabi Modular District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Siemens S7-300 PLC System; Redundant WinCC SCADA System, and Endress-Hauser

Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

Dragon Mart Modular District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Siemens S7-400 PLC System; Redundant WinCC SCADA System, and Endress-Hauser

Instrumentation system

Location: Dubai, United Arab Emirates

Client: Nakheel

Baynoona District Cooling Plant Expansion

Scope of Work: Design, Supply, Installation Supervision, Commissioning, and Integration of the Additional Controls and Instrumentation Components Required for the New Equipment Installed in the Plant.

Solution: GE RX3i PLC System Expansion; Integration with Cimplicity SCADA System, and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

UAE University District Cooling Plant Expansion

Scope of Work: Design, Supply, Installation Supervision, Commissioning, and Integration of the Additional Controls and Instrumentation Components Required for the newly-installed equipment. **Solution:** Redundant Allen-Bradley ControlLogix PLC System expansion; integration with Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Al-Ain, United Arab Emirates

Strategic Tunnel Enhancement Program Phase 1

Scope of Work: Design, Supply, Installation Supervision, and commissioning of the PLC and HMI system

for the tunnel HVAC

Solution: Allen-Bradley CompactLogix PLC System and HMI

Location: Abu Dhabi, United Arab Emirates

Client: Samsung

YAS Island District Cooling Plant Expansion

Scope of Work: Design, Supply, Installation Supervision, Commissioning, and Integration of the Additional Controls and Instrumentation Components Required for the New Equipment Installed in the Plant

Solution: Redundant Allen-Bradley ControlLogix PLC System expansion; integration with Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Yas Island, United Arab Emirates

Client: Tabreed

Golf Gardens District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Allen-Bradley CompactLogix PLC System; Redundant Rockwell Automation FactoryTalk View

Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Sorrouh

Raihan Heights District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Capitala

Zayed University District Cooling Plants 1 & 2

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Allen-Bradley CompactLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Zayed University

Pearl of the Emirates District Cooling Plant 1 (DCP1)

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

Dubai Investment Park District Cooling Plant 3 (DIP3)

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: Emicool

Reef District Cooling Plant

Scope of Work: Provide 3rd Party commissioning Management Services.

Solution: Prepare Commissioning Plan, Procedures, and Documentation; Coordination with Equipment Vendors, Manage the Commissioning Activities, Witness and Verify the Commissioning of all Plant Equipment; Carry out the Plant Performance Tests; Administer the Operation Training, and Manage the

Plant Handover to the Client

Location: Abu Dhabi, United Arab Emirates

Client: Manazel

YAS Island District Cooling Plant

Scope of Work: Provide 3rd Party commissioning Management Services.

Solution: Prepare Commissioning Plan, Procedures, and Documentation; Coordination with Equipment Vendors, Manage the Commissioning Activities, Witness and Verify the Commissioning of all Plant Equipment; Administer the Operation Training, and Manage the Plant Handover to the Client

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Jumeirah Crescent District Cooling Plants

Scope of Work: Provide 3rd Party commissioning Management Services.

Solution: Prepare Commissioning Plan, Procedures, and Documentation; Coordination with Equipment Vendors, Manage the Commissioning Activities, Witness and Verify the commissioning of all Plant Equipment; Administer the Operation Training, and Manage the Plant Handover to the Client

Location: Dubai, United Arab Emirates

Client: Palm District Cooling

Jumeirah Lake Towers District Cooling Plants

Scope of Work: Provide 3rd Party commissioning Management Services.

Solution: Prepare Commissioning Plan, Procedures, and Documentation; Coordination with Equipment Vendors, Manage the Commissioning Activities, Witness and Verify the Commissioning of all Plant Equipment; Administer the Operation Training, and Manage the Plant Handover to the Client

Location: Dubai, United Arab Emirates

Client: Palm District Cooling

KINGDOM OF SAUDI ARABIA:

Knowledge Economic City District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Al - Madinah Al Munawarah, Kingdom Saudi Arabia

Client: Knowledge Economic City

ADF C29 DCP & C51 DCP

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the DCS-based Control System.

Solution: Schneider Electric EPE with E+H instrumentation

Location: Riyadh, Kingdom Saudi Arabia **Client:** Crown Prince Private Affairs Office

Mohammad Bin Salman Foundation (MiSK) District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Riyadh, Kingdom Saudi Arabia

Client: MISK Foundation

Neom Development Central Utility Complex 2

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the DCS-based Control System.

Solution: Schneider Electric EcoStruxure Hybrid DCS (PlantStruxure PES)

Location: Tabouk Province, Kingdom Saudi Arabia

Client: Royal Private Affairs

Jubail University College Community Area DCP, Al Jubail

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, and SCADA System.

Solution: Redundant Honeywell MasterLogic redundant PLC System; Redundant PlantCruise Server-

Client, Historian with Reporting, and Endress-Hauser Instrumentation system.

Location: Al Jubail, Kingdom Saudi Arabia **Client:** Royal Commission for Jubail & Yanbu

Neom Development Central Utility Complex 1

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the DCS-based Control

System.

Solution: Schneider Electric EcoStruxure Hybrid DCS (PlantStruxure PES)

Location: Tabouk Province, Kingdom Saudi Arabia

Client: Royal Private Affairs

Government Agencies Compound District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Rivadh, Kingdom Saudi Arabia

Client: Ministry of Finance

Madina Hajj City District Cooling Plants

Scope of Work: Design, Supply, Installation supervision, and Commissioning of the Integrated PLC, SCADA, and Instrumentation System for the Development Infrastructure Including District Cooling Plants & ETS, Grey Water & irrigation Pumping Stations, Tunnel Ventilation System, and Central Command & Control Center.

Solution: Redundant Rockwell ControlLogix PLC systems; Redundant SCADA Client-server system;

Redundant Historian System with Reporting; and E+H Instrumentation

Location: Al Madinah Al-Munawara, Kingdom Saudi Arabia

Client: Ministry of Finance

King Saud University Endowment Central Utility Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, and ABB Instrumentation system

Location: Riyadh, Kingdom Saudi Arabia

Client: King Saud University

King Fahd Hospital Modular Chiller Plant Control System

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated PLC, and SCADA system.

Solution: Allen-Bradley CompactLogix PLC System; Rockwell Automation FactoryTalk View Site Edition

SCADA System

Location: Jizan, Kingdom Saudi Arabia

Client: King Fahad Hospital

King Saud University Campus District Cooling Plant

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation FactoryTalk View Site Edition SCADA System, and Endress-Hauser Instrumentation system

Location: Riyadh, Kingdom Saudi Arabia

Client: King Saud University

King Abdul Aziz International Airport - Cooling Tower Local Control Panel

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the local PLC & VFD

control panels for the cooling tower.

Solution: Siemens S7-1200 PLC System and I/Os.

Location: Jeddah, Kingdom Saudi Arabia **Client:** King Abdul Aziz International Airport

STATE OF QATAR:

Lusail Marina North District Cooling Plant - Lusail City Development

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system

Location: Doha, Qatar **Client:** Marafeq Qatar

Lusail Marina District Cooling Plant - Lusail City Development

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system

Location: Doha, Qatar **Client:** Marafeq Qatar

Lusail Wadi District Cooling Plant - Lusail City Development

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system

Location: Doha, Qatar **Client:** Marafeq Qatar



PROJECT REFERENCES ENERGY TRANSFER STATION

United Arab Emirates

EMAAR Plot No. 110 ETS

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

Harbour Views, Plot no.18 ETS in Dubai Creek

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

Zayed Military City TB11 ETS 14& 15

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Nakheel Harbour Metro Station ETS

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

Downtown Zabeel Views I Tower ETS

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

Downtown Zabeel Views II ETS

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

ETS for Park Point on Plot # 5AB Dubai Hills

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

Creek Harbour Gate Plot 30

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Dubai, United Arab Emirates

Client: EMAAR

ADNEC Capital Centre-Phase 4 Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

New York University Energy Transfer Station

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for eleven Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

SP-19 Energy Transfer Station

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA System for Energy Transfer Stations.

Solution: Siemens S7-300 PLC System and HMI and Siemens Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: PAL Technology

YAS Mall Energy Transfer Station

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for the Mall Energy Transfer Station

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Sweihan Airbase Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for three Energy Transfer Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Command of Military Works

UAE University Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for four Energy Transfer Stations.

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Al-Ain, United Arab Emirates

Client: Tabreed

Khaleej Hospital Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA System for Energy Transfer Stations.

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Al-Ain, United Arab Emirates

Client: Tabreed

Raha Beach Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for Two Energy Transfer Station

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

AL04 District Cooling Scheme - Connection to 10A, 10b & 10c Buildings

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Al-Ain, United Arab Emirates

Client: Tabreed

Al Nahyan Barracks Energy Metering

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation for Energy metering and Integration with the central SCADA System

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Golf Gardens Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for Four Energy Transfer Stations and 34 Metering Stations.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentations

Location: Abu Dhabi, United Arab Emirates

Client: Sorrouh

YAS Water Park Energy Transfer Stations

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for the Water Park Energy Transfer Station.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

YAS Police Station Energy Transfer Stations

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

GHO Energy Transfer Stations

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for the GHQ Energy Transfer Station.

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Zayed Sports City Energy Transfer Stations

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for the Sport City Energy Transfer Station.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Raihan Heights Energy Transfer Stations

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for Five Energy Transfer Station.

Solution: Allen-Bradley CompactLogix PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Capitala

RAK Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for Four Energy Transfer Station.

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: RAK, United Arab Emirates

Client: Tabreed

Marina City Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for Energy Transfer Stations.

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Abu Dhabi Accountability Authority Headquarter Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA for Energy Transfer Stations.

Solution: GE VersaMax PLC System and HMI and Endress-Hauser Instrumentation system

Location: Abu Dhabi, United Arab Emirates

Duja Tower Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA System for Energy Transfer Stations.

Solution: GE VersaMax PLC System and HMI with Siemens Instrumentation system and integration

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

ANSAM Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA for Energy Transfer Stations.

Solution: Rockwell Automation CompactLogix PLC & HMI with Siemens Instrumentation system and

integration

Location: Abu Dhabi, United Arab Emirates

Client: Tabreed

Warner Brothers Theme Park Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA System for 4 Energy Transfer Stations.

Solution: Rockwell Automation CompactLogix PLC & HMI with Siemens Instrumentation system and

integration

Location: Abu Dhabi, United Arab Emirates

Client: Farah Leisure

Al Jimi Mall Phase III Development Energy Transfer Stations

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA System for 1 Energy Transfer Stations.

Solution: GE VersaMax PLC System and HMI with Siemens Instrumentation system and integration

Location: Al Ain, United Arab Emirates

Client: ALDAR

KINGDOM OF SAUDI ARABIA

ADF 7 ETSs

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the DCS-based Control

System.

Solution: Simplex Siemens S7-1500 with E+H instrumentation.

Location: Riyadh, Kingdom Saudi Arabia **Client:** Crown Prince Private Affairs Office

MiSK School ETS

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Riyadh, Kingdom Saudi Arabia

Client: MISK Foundation

King Saud University 11 Energy Transfer Stations

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA system.

Solution: Redundant Allen-Bradley ControlLogix PLC System; Redundant Rockwell Automation

FactoryTalk View Site Edition SCADA System, and ABB Instrumentation system

Location: Riyadh, Kingdom Saudi Arabia

Client: King Saud University

Government Agencies Compound 67 ETSs

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Integrated

Instrumentation, PLC, and SCADA System.

Solution: Redundant Siemens S7400H PLC System; Redundant Siemens WinCC Server-Client, Historian

with Reporting, and Siemens and Endress-Hauser Instrumentation system.

Location: Riyadh, Kingdom Saudi Arabia

Client: Ministry of Finance

Madina Haji City 95 ETSs

Scope of Work: Design, Supply, Installation supervision, and Commissioning of the Integrated PLC, SCADA, and Instrumentation System for the Development Infrastructure Including District Cooling Plants & ETS, Grey Water & irrigation Pumping Stations, Tunnel Ventilation System, and Central Command & Control Center.

Solution: Redundant Rockwell ControlLogix PLC systems; Redundant SCADA Client-server system;

Redundant Historian System with Reporting; and E+H Instrumentation

Location: Al Madinah Al-Munawara, Kingdom Saudi Arabia

Client: Ministry of Finance

King Abdul Aziz International Airport - Cooling Tower Local Control Panel

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the local PLC & VFD

control panels for the cooling tower.

Solution: Siemens S7-1200 PLC System and I/Os. **Location:** Jeddah, Kingdom Saudi Arabia

Client: King Abdul Aziz International Airport

OATAR

Energy Transfer Stations Systems for Musheireb

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA for 3 Energy Transfer Stations. **Solution:** Siemens S7-1200 PLC with Siemens Instrumentation system

Location: Doha, Qatar **Client:** Musheireb Qatar

Lusail Development - Multiple Energy Transfer Stations Systems

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC, HMI, and Integration with the Plant SCADA System for multiple Energy Transfer Stations at Lusail Development.

Solution: Siemens S7-1500 PLC with 15" HMI and Siemens Instrumentation system and GPRS integration

Location: Doha, Qatar **Client:** Marafeq Qatar

<u> Qatar Education City - People Mover System - Central SCADA System</u>

Scope of Work: Central SCADA system for the HVAC system for the Education City 27 Tram

Solution: Redundant Siemens WinCC Server-Client, Historian with Reporting.

Location: Doha, Qatar **Client:** Qatar Foundation

Oatar Education City - People Mover System (Tram)

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated PLC and HMI with the

Main SCADA Integration for the HVAC system at the Tram stations.

Solution: Siemens S7-300 PLC and 15" HMI at multiple locations and integration

Location: Doha, Qatar Client: Qatar Foundation

BAHRAIN

Marassi - NBR - ETS

Scope of Work: Design, Supply, Installation, and Commissioning of the Integrated Instrumentation, PLC,

HMI, and Integration with the Plant SCADA for 3 Energy Transfer Stations. **Solution:** Siemens S7-1200 PLC with Siemens Instrumentation system

Location: Muharraq, Bahrain

Client: Diyar