



Giza 5Th
Systems

73%



17% 15%
12% 24%
32%

Enabling
Digital
Transformation



Case Studies



Oil & Gas



Egypt, North Africa & Levant



Zohr Offshore and Onshore – Petrobel (Eni)



Project

Integrated Life and Property Safety Solutions

Client

Petrobel

End-user

Eni

Project Location

Port Said, Egypt

Project Description

Giza Systems was awarded the project to implement network infrastructure and life and property safety and threat detection solutions.

Benefits to Client

- Increase in the level of reliability and comfort
- Saving time and money

Scope

Services

- Support system design, engineering and documentation for the project
- Site acceptance test
- Commissioning and start up for the system

Solutions

- Data Infrastructure Passive (fiber + data cabling)
- Data Infrastructure Active (PABX + LAN)
- Data Security
- IP Voice Telephony System
- Wireless Access Points
- Storage Unites
- CCTV + VMS
- Access Control System
- Intrusion Detection System
- Public Address System



Agiba Gas Generation Plant Upgrade in Faras Field

Project

Agiba Gas Generation Plant Upgrade in Faras Field

Client

Agiba Petroleum Company

Project Location

Faras Field, Ras Qattara – Western Desert, Egypt

Project Description

Giza Systems was awarded the project to upgrade the Faras field power station to operate on gas engine-driven generators instead of diesel generators.

Benefits to Client

- Reduced diesel fuel consumption without any cost increase
- Better prime movers availability and reliability
- Reduced emissions and improved environmental compliance

Scope

- Two new gas engine-driven generators
- One new LV incomer
- Gas treatment and compression unit



Agiba Wellhead Control Panel

Project

Agiba 7 Wellhead Control Panels

Client

Agiba Petroleum Company

Project Location

Egypt

Project Description

Giza Systems was awarded the project of design, supply, engineering, installation supervision, commissioning and startup of seven Wellhead Control Panels (WHCP).

Benefits to Client

- Solar energy system to sustain remote locations
- Primary WiMAX connection and secondary GSM
- Seven wellheads connected through a central control room
- Timely response to alarms
- Portable skid
- Full integration with existing systems
- Ability to accommodate future additions
- Ten-year availability of spare parts and after sale service

Scope

- Complete system design, engineering and documentation for the project
- Factory Acceptance Test in Giza Systems Free Zone
- Site Acceptance Test in Egypt
- Commissioning and start up for the system in Egypt



BMS - Enppi

Project

Building Management
Solutions

Client

Enppi

Project Location

Cairo, Egypt

Project Description

Giza Systems was awarded the project to install a reliable fire and gas monitoring system for Enppi's petrochemical plant.

Benefits to Client

- Maximized performance, efficiency and cost effectiveness
- Remote monitoring of equipment
- Reduction in operation and maintenance costs
- Prevention of dangerous accidents caused by flammable and toxic gas leaks

Scope

Project included engineering, supply, installation, FAT, testing, commissioning and integration of addressable fire and gas detection system.



Chevron Lubricants

Project

DCS System Upgrade to Centum VP

Client

Chevron Lubricants

Project Location

Egypt

Project Description

Giza Systems was assigned this project to provide overall project management covering all PM responsibilities, as well as engineering, design, documentation and configuration.

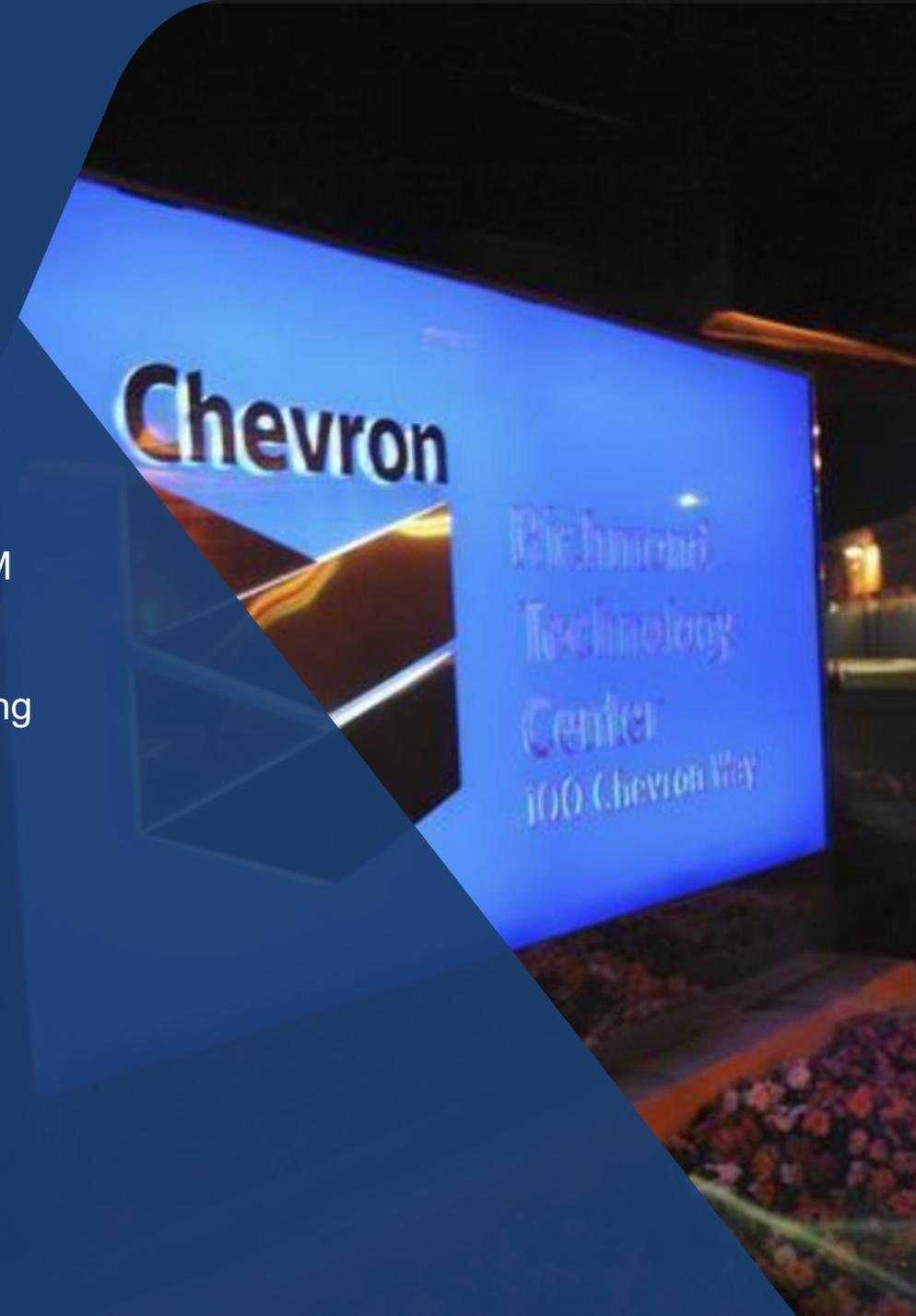
Benefits to Client

- Maximized performance and efficiency
- Cost effectiveness

Scope

Giza Systems was assigned the project to provide the following:

- Overall project management covering all PM responsibilities
- Engineering, design, documentation and configuration for the control system according to client's specifications
- Supply of field instruments, level, temperature, pressure, and differential pressure transmitters
- Supply of buyout material such as systems, marshaling, and power distribution cabinets
- Supply of system peripherals such as computer workstations, network switches, printers, UPS, and control room furniture



CORC Distillation Plants

Project

Distributed Control System

Client

Cairo Oil Refining Company (CORC)

Project Location

Mostorod Refinery, Egypt

Project Description

Giza Systems was awarded the project for the installation of DCS in units 1, 2,3 and 4 of CORC distillation plants.

Benefits to Client

- Modernization of the gas plant
- Higher performance levels and smoother operations
- Long-term support for critical control system

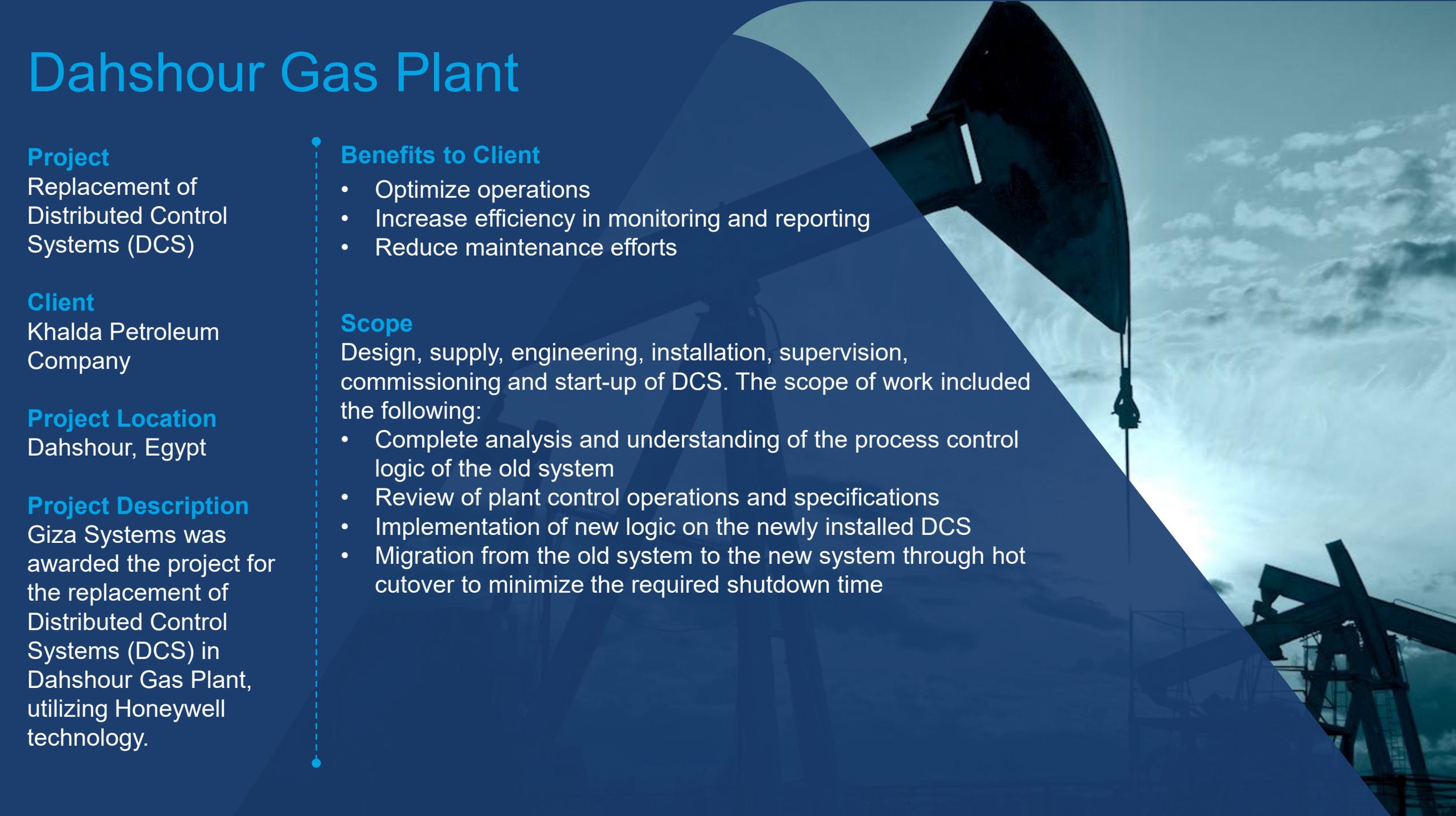
Scope

Design, supply, engineering, installation supervision, commissioning and start-up of Distributed Control System. The implementation included:

- Replacing of existing Yokogawa Distributed Control System (DCS) with latest state of the art Distributed Control System (Honeywell Experion PKS)
- Complete system design, engineering and documentation for the project
- Hot-cutover migration
- Factory Acceptance Test in Abu Dhabi
- Site Acceptance Test, CORC refinery
- Commissioning and start up for the system in Egypt
- Training



Dahshour Gas Plant



Project

Replacement of Distributed Control Systems (DCS)

Client

Khalda Petroleum Company

Project Location

Dahshour, Egypt

Project Description

Giza Systems was awarded the project for the replacement of Distributed Control Systems (DCS) in Dahshour Gas Plant, utilizing Honeywell technology.

Benefits to Client

- Optimize operations
- Increase efficiency in monitoring and reporting
- Reduce maintenance efforts

Scope

Design, supply, engineering, installation, supervision, commissioning and start-up of DCS. The scope of work included the following:

- Complete analysis and understanding of the process control logic of the old system
- Review of plant control operations and specifications
- Implementation of new logic on the newly installed DCS
- Migration from the old system to the new system through hot cutover to minimize the required shutdown time

DCS Upgrade for Cairo Oil Refining Company (CORC)

Project

DCS Upgrade for Cairo Oil Refining Company (CORC)

Client

Cairo Oil Refining Company (CORC)

Project Location

Egypt

Project Description

Cairo Oil Refining Company (CORC) awarded the project to Giza Systems to supply a Distributed Control System (DCS) for selected distillation plants - U1, U3 and U4.

Benefits to Client

- Minimizing system failures and shutdown periods
- Increasing efficiency and productivity of the distillation plants
- Eliminating old system's performance problems and repeated problematic issues
- Availability of spare parts

Scope

The project services scope entailed implementation of a Distributed Control System (DCS) including engineering, supply, installation and supervision.



Egyptian General Petroleum Corporation

Project
SCADA System

Client
Enppi

Project Location
Egypt

Project Description
Giza Systems was awarded the implementation of the Smart Fuel Monitoring SCADA System by Enppi for the Egyptian General Petroleum Corporation (EGPC).

Benefits to Client

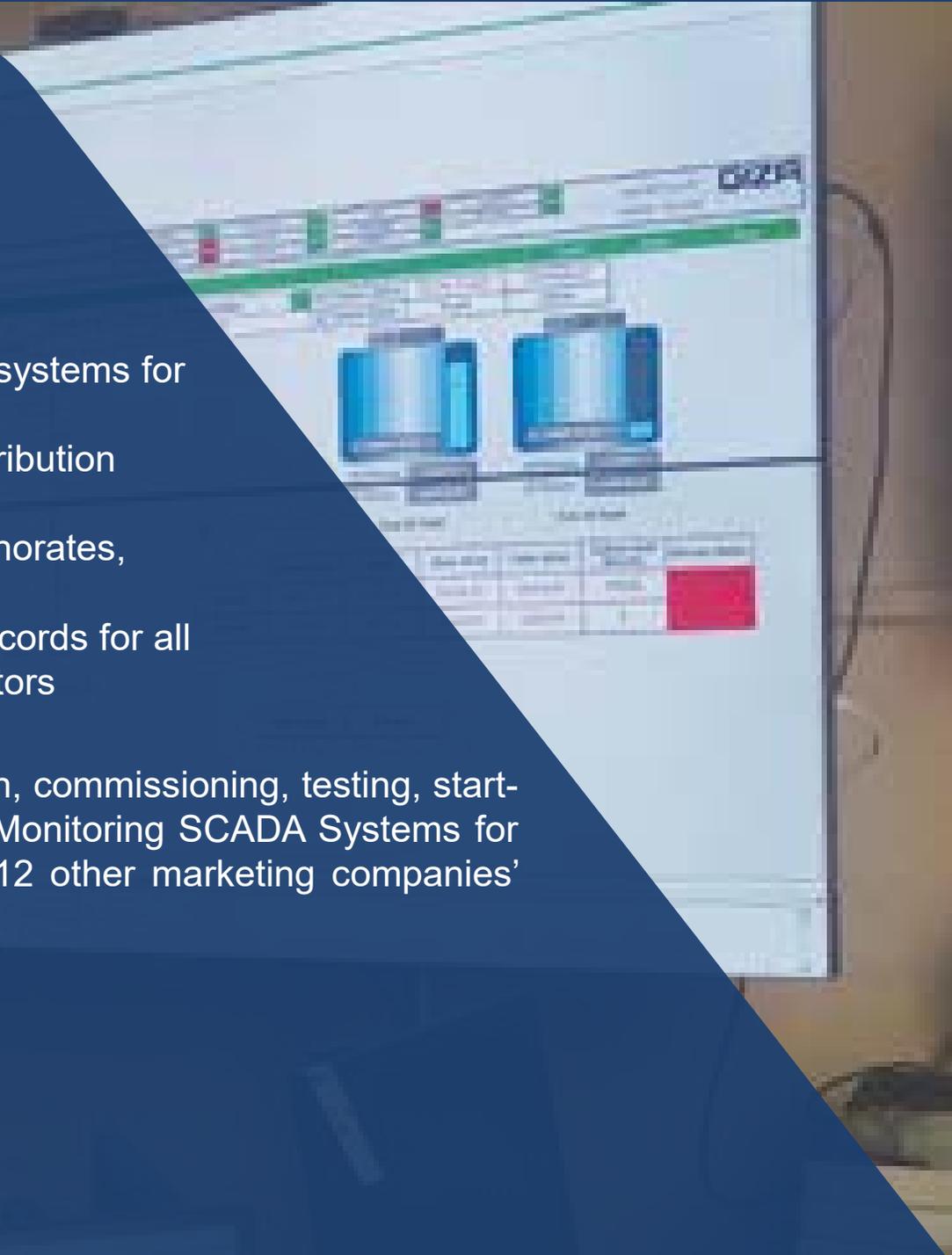
- Monitor and control the fuel management systems for the entire country
- Support in the decision making of fuel distribution across Egypt
- Minimize the risk of fuel shortage in governorates, cities, districts, and companies
- Generate data analytics using historical records for all fuel levels, deliveries, sales, and other factors

Scope

Design, engineering, procurement, installation, commissioning, testing, start-up and maintenance support of Smart Fuel Monitoring SCADA Systems for the EGPC's main control room, along with 12 other marketing companies' remote control rooms.

The deployment included the following:

- ✓ Redundant SCADA system
- ✓ Redundant historical system
- ✓ Leased line communication
- ✓ Backup 4G/3G communication
- ✓ Cyber-security firewall



Egyptian Liquefied Natural Gas (ELNG)

Project

Security for Egyptian Liquefied Natural Gas

Client

Egyptian Liquefied Natural Gas (ELNG)

Project Location

Multiple locations in Egypt

Project Description

Giza Systems is the main system integrator to ELNG in all security systems on-site and in head office, providing continuous support.

Benefits to Client

- Availability of evacuation system to protect people in case of emergency
- Security of operations against intrusion
- Integration between multi vendors
- Continuous support

Scope

- CCTV
- Access control system
- Intrusion detection
- Evacuation



Egyptian Petrochemicals Company



Project

Continuous Emission Monitoring Systems

Client

Egyptian Petrochemicals Company

Project Location

Egypt

Project Description

Giza Systems was awarded the turnkey project of Continuous Emission Monitoring Systems (CEMS) for the Egyptian Petrochemicals Company.

Benefits to Client

- Constantly monitor emission levels of CO, NO_x, SO₂, CO₂, O₂ and flue gas rates
- Improve the disposal of industrial gaseous waste
- Place regulatory controls to decrease pollution

Scope

Design, supply, installation and commissioning of four complete Continuous Emission Monitoring Systems under the supervision of the Egyptian Environmental Affairs Agency.

Enppi – Total

Project

Basement Processing Unit (BPU), Phase I

Client

Enppi – Total

Project Location

Yemen

Project Description

Giza Systems was assigned this project to provide overall project management covering all PM responsibilities, as well as engineering, design, documentation and configuration.

Benefits to Client

- Increase efficiency of operations
- Enhance safety

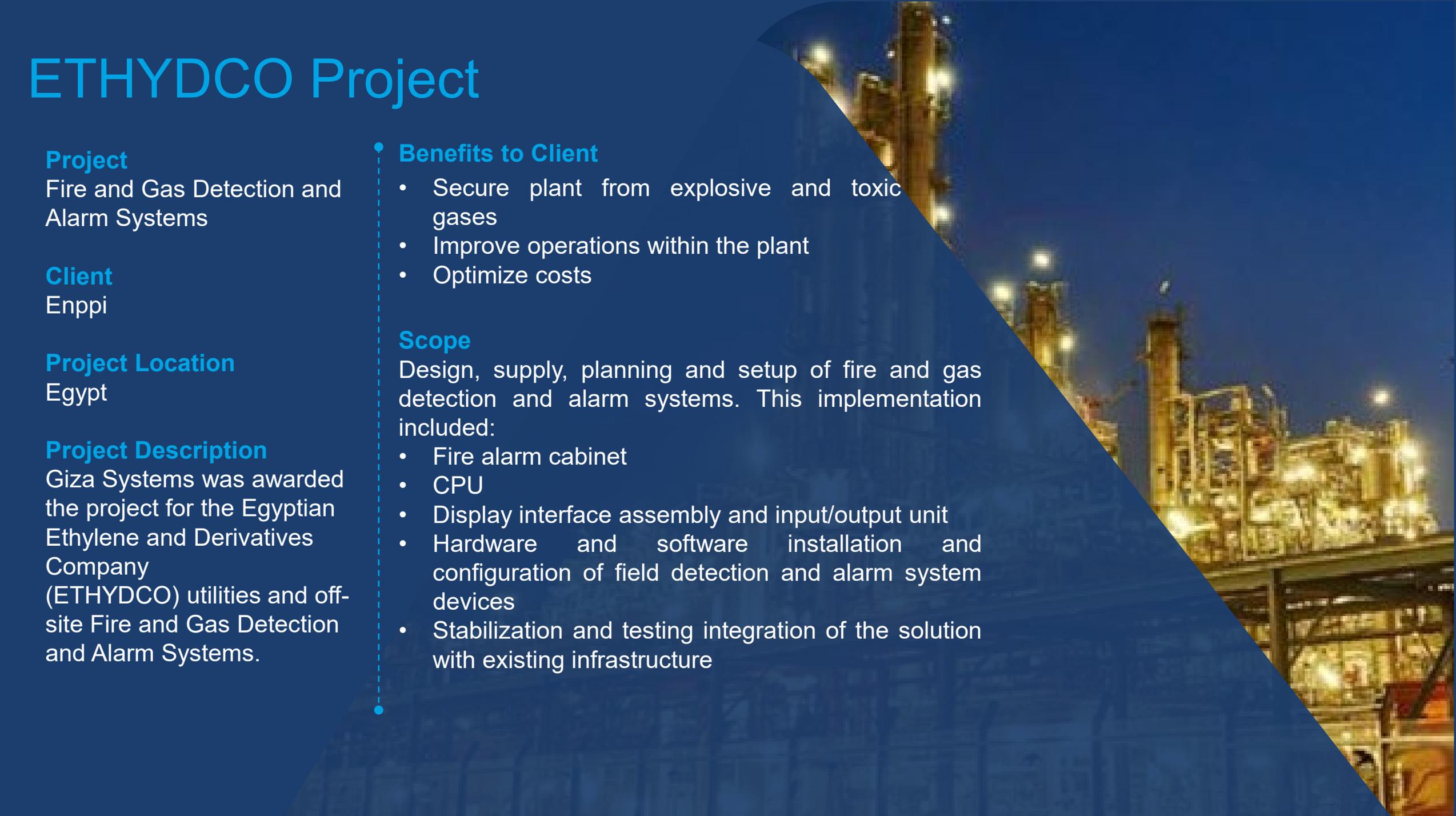
Scope

Giza Systems was assigned this project to provide the following:

- Overall project management covering all PM responsibilities
- Engineering, design, documentation and configuration for the control, shutdown, and fire and gas systems according to client's specifications
- Supply of buyout material such as systems, marshaling, and power distribution cabinets
- Supply of system peripherals such as computer workstations, network switches, optical fiber components, printers, and control room furniture



ETHYDCO Project



Project

Fire and Gas Detection and Alarm Systems

Client

Enppi

Project Location

Egypt

Project Description

Giza Systems was awarded the project for the Egyptian Ethylene and Derivatives Company (ETHYDCO) utilities and off-site Fire and Gas Detection and Alarm Systems.

Benefits to Client

- Secure plant from explosive and toxic gases
- Improve operations within the plant
- Optimize costs

Scope

Design, supply, planning and setup of fire and gas detection and alarm systems. This implementation included:

- Fire alarm cabinet
- CPU
- Display interface assembly and input/output unit
- Hardware and software installation and configuration of field detection and alarm system devices
- Stabilization and testing integration of the solution with existing infrastructure

Feiran Firefighting and F&G System Upgrade

Project

Feiran Firefighting and Fire & Gas System Upgrade in a Pre-Fabricated Module for Electric Machinery and Equipment

Client

Enppi / PETROBEL

Project Location

Egypt

Project Description

ENPPI / Petrobel awarded Giza Systems the project to supply pre-fabricated module manufactured and installed with all its auxiliaries

Benefits to Client

- Cost savings
- Mobility and ease of transportation
- Ensuring the safety of staff, assets and operations
- Optimized operations and full processes automation

Scope

The project involves the design, supply, engineering, manufacturing, testing (FAT/SAT) of the integrated solution with site installation supervision.

The scope of the integrated solution is comprised of:

- An electrical power prefabricated power module with all its auxiliaries (i.e. lighting fixtures, emergency lights, power and service sockets, extraction fans, earthing system, MCTs, etc.)
- Safety controller, which controls the fire and gas detection system
- Field and fire gas detectors and alarm devices



Khalda Petroleum New Mobile Wellhead Control Skid Project

Project

New Mobile Wellhead Control Skid Solution for Khalda Petroleum Company

Client

Khalda Petroleum Company (KPC)

Project Location

Egypt

Project Description

Integration of a mobile, portable, self-powered wellhead control skid solution that ensures that the international and local standards of safe operations for oil fields, oil production and transportation are met.

Benefits to Client

- Cost and energy savings
- Mobility and portability to be used at different locations
- Protection of staff and facilities against possible hazards
- Increased ease of operation and maintenance

Scope

The scope of the project included:

- Design, manufacturing, assembly and integration of the mobile, portable, self-powered wellhead control skid solution.
- Design, manufacturing and assembly of all hydraulic and Remote Terminal Units (RTU) panels.



Meleiha Gas Plant

Project

Wellhead Control Panel

Client

Agiba Petroleum
Company

Project Location

Western Desert, Egypt

Project Description

Giza Systems was awarded the design, engineering, supply and commissioning of 7 Electro-Hydraulic Wellhead Control Panels (WHCP) to be used for operating wells at the Meleiha gas plant.

Benefits to Client

- State-of-the-art WHCP solution that will:
- Optimize performance and process stability
- Enhance gas production
- Provide higher quality and safety levels
- Ensure minimal operational interruption
- Provide maintenance of wellhead operations and shutdown readiness all throughout the year
- Provide steady and continuous communication
- Facilitate future usage of solution at different wellheads
- Facilitate integration with existing systems and its scalability to accommodate future additions

Scope

Complete system design, engineering, documentation, assembly of valves, spools, and fittings used for the installation of a hydraulic system to regulate the pressure inside the gas pipeline.

The Electro-Hydraulic Control Panel is composed of:

- ✓ Safety PLC SIL2 certified (1 MTU & 7 RTUs)
- ✓ Telecommunication equipment (GSM & Wi MAX)
- ✓ Power system (solar system with PV panels and batteries)
- ✓ Hydraulic panel (complete with control valves & its accessories)



Meleiha Gas Plant... Cont'd

Project

Wellhead Control Panel

Client

Agiba Petroleum
Company

Project Location

Western Desert, Egypt

Project Description

Giza Systems was awarded the design, engineering, supply and commissioning of 7 Electro-Hydraulic Wellhead Control Panels (WHCP) to be used for operating wells at the Meleiha gas plant.

Scope, cont'd

The implementation of the project included:

- Control logic and schemes applied to the hydraulic systems to ensure timely response to alarms and smooth user operations and interface
- Installation of a solar energy system to provide the necessary power for wellhead operations in the remote location.
- Connecting 7 wellheads to the central control room through wireless communication, relying primarily on WiMAX technology, and secondarily on GSM as a backup.
- Factory Acceptance Test in Giza Systems Free Zone
- Site Acceptance Test in Meleiha gas plant
- Offsite training at Giza Systems head office



Obayeid Gas Plant – Phase 1

Project

Distributed Control System (DCS)

Client

Badr Petroleum Company (BAPETCO)

Project Location

Western Desert, Egypt

Project Description

Giza Systems was awarded the installation of the Distributed Control System (DCS) and the migration from the old system to the new one for Phase 1 of Obayeid gas plant project.

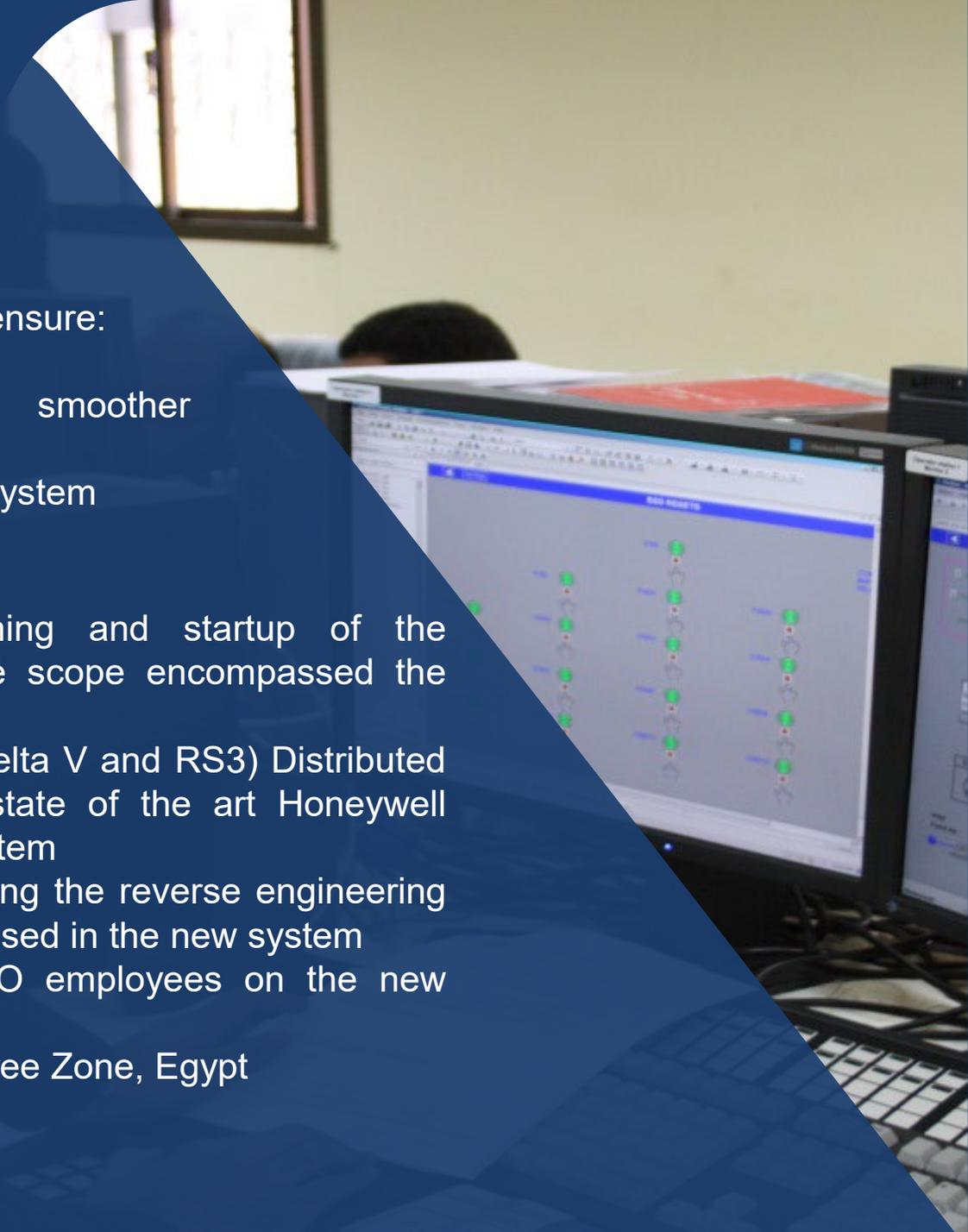
Benefits to Client

- The migration to the new system will ensure:
- Modernization of the gas plant
- Higher performance levels and smoother operations
- Long-term support for critical control system

Scope

The supply, engineering, commissioning and startup of the Distributed Control System (DCS). The scope encompassed the following:

- Replacement of existing Emerson (Delta V and RS3) Distributed Control System (DCS) with latest state of the art Honeywell Experion PKS Distributed Control System
- Migration from the old system including the reverse engineering for preparing the design inputs to be used in the new system
- Training of more than 50 BAPETCO employees on the new technology at Giza Systems premises
- Factory Acceptance Test in Ismailia Free Zone, Egypt
- Site Acceptance Test in Egypt



Petresco Plant

Project

Petresco Fire Fighting and Fire and Gas System

Client

Petrobel

Project Location

Egypt

Project Description

Giza Systems was contracted to design the required interventions, modifications, adding to the existing Fire Fighting and Fire & Gas Systems in order to properly manage the safety of the plant.

Benefits to Client

- Facility security and safety optimization
- Higher responsiveness and disaster management mechanisms
- Efficiency in resource and asset management

Scope

- Supply, design, sizing, manufacturing, installation, assistance, termination, commissioning and documentation for the E&I equipment to be installed inside the existing control room with interface cables and F&G detectors
- Installation of E&I equipment and auxiliaries:
 - ✓ PMCC instrument UPS
 - ✓ Engineering workstations
 - ✓ F&G PLC System SIL-3
 - ✓ Operator workstations
 - ✓ HVAC system
 - ✓ Fire fighting equipment
 - ✓ Air conditioning system
 - ✓ Battery banks
 - ✓ MIMIC panel
 - ✓ MOS panel



Petresco Plant... Cont'd

Project

Petresco Fire Fighting and Fire and Gas System

Client

Petrobel

Project Location

Egypt

Project Description

Giza Systems was contracted to design the required interventions, modifications, adding to the existing Fire Fighting and Fire & Gas Systems in order to properly manage the safety of the plant.

Scope, cont'd

- Manufacturing and installation of pre-fabricated module and its auxiliaries:
 - ✓ Lighting fixtures
 - ✓ Emergency lights
 - ✓ Power and service sockets
 - ✓ Extraction fans
 - ✓ Earthing system
 - ✓ MCTs
- Testing (FAT/SAT)

GIZA

MOG



Petresco Project – Abu Rudeis Project for Petrobel

Project

Supply of a Complete Prefabricated Portable Module System

Client

Belayim Petroleum Company (Petrobel)

Project Location

Abu Rudeis, Egypt

Project Description

Giza Systems was awarded the project, in partnership with Enppi, to supply a complete prefabricated portable module system for PETRECO's Abu Rudeis oil and gas site.

Benefits to Client

- Reduced costs
- Optimized processes
- Meeting rigorous international standards

Scope

Services

All engineering, design, testing and procurement services for the project.

Solutions

The scope entailed providing the site with a power module shelter complete with:

- Firefighting and fire alarm systems
- UPS and batteries
- HVAC, MCC and power distribution board
- F&G system
- Mimic panel
- Computers and console



SUMED Pipeline – Egypt

Project

Integrated Security System

Client

Arab Petroleum Pipelines
Company (SUMED)

Project Location

Ain Sokhna, Egypt

Project Description

Giza Systems was responsible for: the supply, performance of FAT and SAT tests, commissioning and start-up of the total integrated solution.

Benefits to Client

- Increase in the level of reliability in critical situations allowing fast actions
- Flexibility for future upgrades

Scope

- CCTV + VMS (75 Cameras)
- Access control
- Parking management system



Audible / Visual Navigation Aids System for the General Petroleum Company



Project

Visual/Audible Navigation Aids System for Platforms F-F & G-G

Client

General Petroleum Company

Project Location

Ras Ghareb, Egypt

Project Description

Giza Systems and Giza Systems Distribution (GSD) implemented audible / visual navigation aids system for two GPC offshore fields: Platform F-F & G-G – the Eastern desert fields in Ras Ghareb

Benefits to Client

- Protection against possible collisions
- Reduction in oil-spill accidents causing financial and environmental losses
- Faster and better responsiveness to alarms and malfunctions
- Professional training on operations

Scope

In partnership with SICE, Italy, the scope included:

Solutions:

- Visual and audible warning and protection for the platform
- Site-status communication between operator and customer
- Radar communication between platform and approaching ships

Services:

All works and installation (offshore) complying with IALA standards



Upgrading of Distributed Control System - BAPETCO

Project

Upgrading of Existing Distributed Control System at BAPETCO

Client

Engineering for the Petroleum and Process industries – ENPPI

End Client

BADR EI-DIN Petroleum Company – BAPETCO

Project Location

Egypt

Project Description

Giza Systems was awarded the project to upgrade the existing DCS at Obayeid for BAPETCO

Benefits to Client

- Adding scheduled backups for each station and the ability to store these images on network storage system
- Protecting the existing stations with the updated AV
- Alarm filtering for faster responsiveness and better decision making

Scope

All engineering and design, testing activities, site installation supervision, SAT and start-up for:

- Alarm Management System
- Backup and Restore System
- NAS Network Attached Storage
- Cyber Security Network Upgrade and Antivirus System

Enppi



ANOPC: AHC – BOP Project



Project

ANOPC: AHC – BOP
Project

Client

Assiut National Oil
Processing Company
(ANOPC)

Main Contractor

TechnipFMC & Petrojet

Project Location

Egypt

Project Description

Giza Systems was awarded the project to provide complete MEP solution, procurement, light current solution and EPC for mechanical firefighting

Benefits to Client

- Enhanced monitoring and control of projects
- Higher responsiveness and effective incident management
- Ensure the safety of people and assets
- Limit asset damage and injury

Scope

Giza Systems was awarded the project to provide:

- Mechanical
- Electrical
- Plumbing solutions
- Procurement
- Construction of light current solutions
- EPC for mechanical firefighting



ICSS for Utilities and Offsite for ASORC Naphtha Complex

Enppi



Project

ICSS for Utilities and offsite for ASORC Naphtha Complex

Project Client

Assiut Oil Refining Company (ASORC)

Project Location

Assiut, Egypt

Project Description

Giza Systems was awarded the Integrated Control and Safety System for ASORC Naphtha Complex project by the Engineering for Petroleum and Process Industries Company (ENPPI)

Benefits to Client:

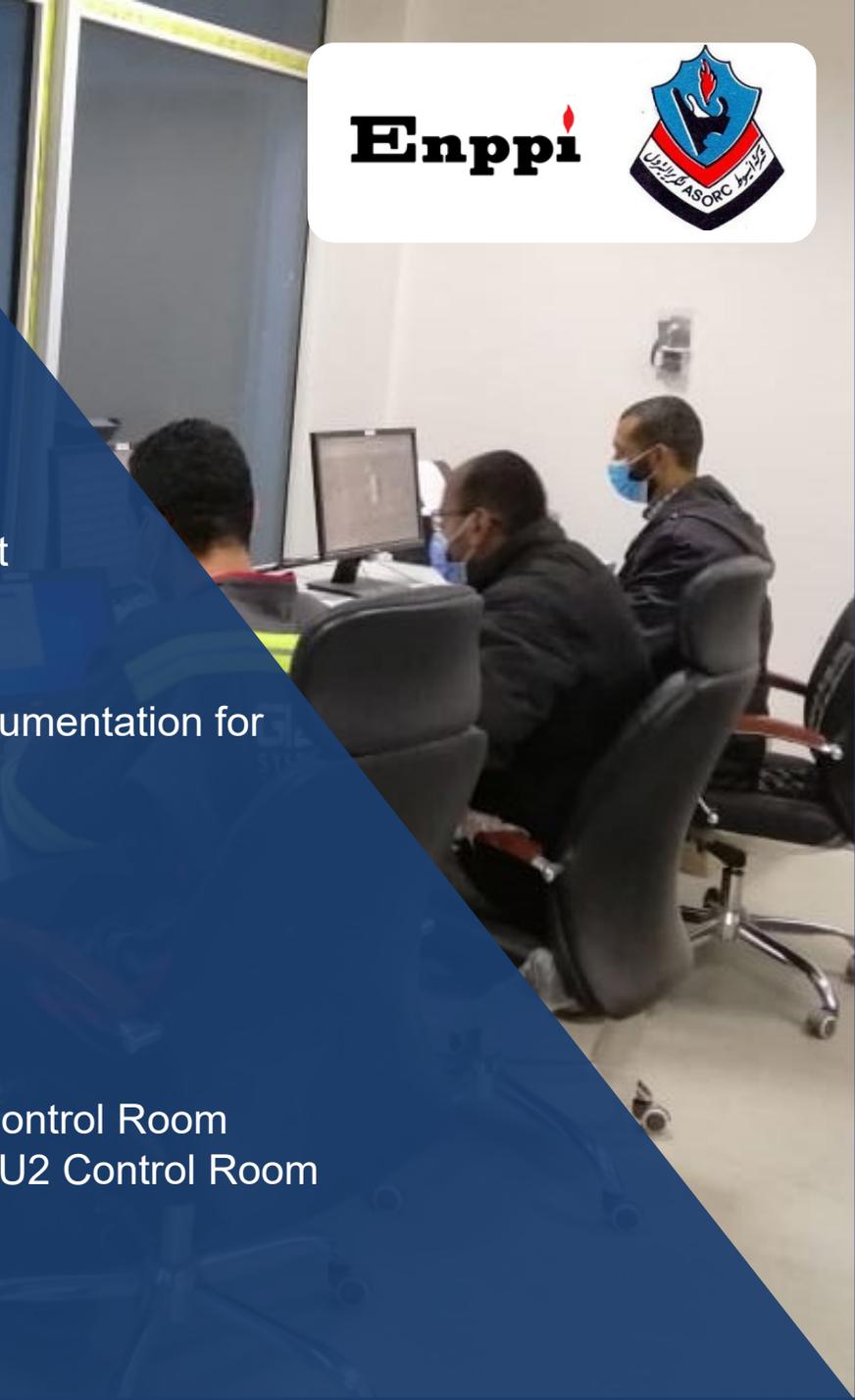
- Monitor process variables
- Manage safety of the plant according to international safety standards
- Decrease oil waste during the refining process
- Increase productivity to cater to the entire Upper Egypt region

Scope

- Complete system supply, design, engineering and documentation for the project
- Factory acceptance test in Giza Systems Free Zone
- Site acceptance test in Egypt
- Commissioning and start up for the system in Egypt

Solutions

- DCS of Main Control System
- SIL-3 SIS System of Main Control System
- DCS System of Control System -1 at Existing CDU2 Control Room
- SIL-3 SIS System of Control System -1 at Existing CDU2 Control Room
- DCS System at Existing Switchgear 120/2
- SIL-3 SIS System at Existing Switchgear 120/2



Integrated Control and Shutdown System (ICSS) Automation Project

Project

Integrated Control and Shutdown System (ICSS) Automation Project

Client

Western Desert Operating Petroleum Co. (WEPCO)

Main Contractor

Honeywell

Consultant

ENPPI (Engineering for the Petroleum and Process Industries)

Project Location

El-Hamra Terminal, Mediterranean Coast, Egypt

Project Description

Integration of a Honeywell Distributed Control System (DCS), Emergency Shutdown System (ESD) and a Terminal Management System (TMS) for El-Hamra terminal

Benefits to Client

- Complete automation of whole terminal operation
- Centralized control, monitoring and reporting of components and processes
- Optimized operations
- Ensure the safety of people and assets

Scope

Solutions:

- DCS (Distributed Control System)
- ESD (Emergency Shutdown System)
- TMS (Terminal Management System)

Services:

- All Engineering and design activities
- Third-Party Hardware purchasing
- All Logistics activities for customs release, HW free-zone entrance and
- Testing activities
- Site installation Supervision, SAT and Start-up



Integrated Control and Shutdown System for NPC Automation Project

Honeywell



Project

Integrated Control and Shutdown System for NPC Automation Project

Main Contractor

Honeywell

Consultant

PETROJET

End-user

Nasr Petroleum Company (NPC)

Project Location

Egypt

Project Description

Giza Systems was awarded the project to implement a Distributed Control System (DCS) and an Emergency Shutdown System (ESD) for NPC's new condensate unit: CDU-4

Benefits to Client

- Enhanced control and safety
- Enhanced reliability and system availability
- Fully automated condensate unit operation

Scope

Scope of services includes:

- All Engineering and design activities
- Third-Party Hardware purchasing
- All logistics activities for customs release, HW free-zone entrance
- Testing activities
- Site installation supervision, SAT and start-up

Giza Systems successfully completed the design, manufacturing, testing and delivery phases and is set for installation at the NPC site once it is ready



Petrojet

Project

Access Control and Security Systems

Client

Petrojet

Project Location

Algeria

Project Description

Giza Systems was selected to supply instrument cables for the benefit of Petrojet.

Benefits to Client

- Energy saving
- Cost reduction
- Optimized operations
- Protection of assets
- Easy access restriction for high-security areas

Scope

The scope included the supply of the following:

- Instrument cables
- Public address
- Intercom systems



Petrojet Reggane – Algeria Data Network & Security

Project

Reggane – Algeria Data Network and Security

Client

Petrojet

Project Location

Reggane, Algeria

Project Description

Giza Systems was awarded the project to implement technology infrastructure, data network and security for Petrojet in Reggane, Algeria.

Benefits to Client

- Enhanced network security
- High level of network availability
- Proactive network maintenance and issue prevention
- Better support of operations

Scope

Services

- Support system design, engineering and documentation for the project
- Site acceptance test
- Commissioning and start up for the system

Solutions

- Technology Infrastructure
- Data Network
- Data Security



Jordanian Egyptian Fajr For Natural Gas Transmission & Supply Co. Ltd.

Project

56Km North Gas Pipeline Project.

Client

Jordanian Egyptian Fajr for Natural Gas Transmission & Supply Co. Ltd.

Project Location

Jordan

Project Description

Giza Systems was awarded the project to protect the 56km pipeline and facilities against intrusion and tampering with fiber sensing cables and CCTV system.

Benefits to Client

- Protecting the pipeline and the fence surrounding pipeline facilities from interference, tampering, and illegal tapping attempts

Scope

- CCTV + VMS
- Perimeter intrusion detection system (56km Sensing cable)
- Full integration between CCTV and PIDS
- Full integration with SCADA system



Fajr SCADA Upgrade

Project

Upgrade of SCADA Systems

Client

Jordanian Egyptian Fajr

Project Location

Jordan

Project Description

Giza Systems was awarded the project to deploy the latest upgrade to the network servers for the enhancement of Fajr's network infrastructure.

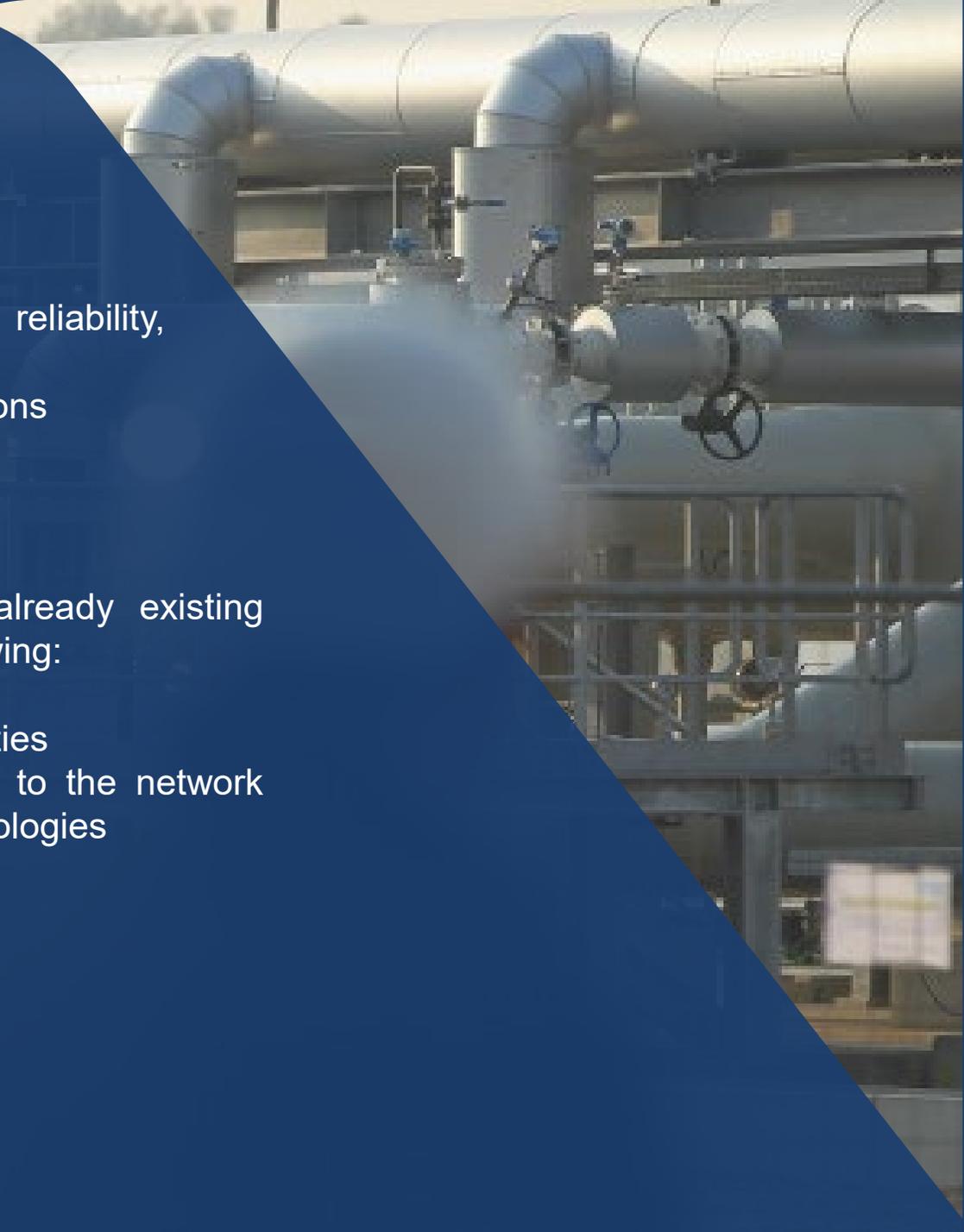
Benefits to Client

- Enhance the capabilities of servers
- Ensure substantial increase in the reliability, dependability and stability of the system
- Facilitate monitoring and control of operations
- Improve customer service experience

Scope

Installation of the latest upgrade to the already existing SCADA system. The scope ensured the following:

- Easy application creation
- Ongoing maintenance across remote facilities
- Scalability that affords future expansions to the network and facilitates the integration of new technologies



Jordanian Egyptian Fajr Flow Control of Gas

Project

Flow Control of Gas
Consumers

Client

Jordanian Egyptian Fajr

Project Location

Jordan

Project Description

Fajr had decided to go for implementing flow control modules for their current gas customers on the installed SCADA system to monitor and control the hourly gas flow rate for each gas customer.

Benefits to Client

- Optimized monitoring and control
- Faster responsiveness to incidents and informed decision making

Scope

Integration of the gas metering stations installed for each customer with the existing SCADA system. The scope included the engineering, integration, installation, commissioning and startup by supplying the following:

- SCADA software licenses (redundant SCADA server at the main control room in Aqaba and backup SCADA server at emergency control room in Rehab)
- Remote Terminal Units
- Fiber transmission equipment (SDHs and transceivers)
- Power units (UPSs and battery chargers)
- Leak detection system licenses
- System fabrication, FAT and SAT
- Implementation, training and support
- Redundant RTUs (16 remote locations)
- Redundant FO link via SDH (STM-1 155M bandwidth)
- Backup leased line link (max 30 second automatic switching time for all RTUs)
- Redundant telephone line at each RTU site
- Access control system
- Redundant solar systems with 7 days autonomy
- Six months delivery



AI-Snobar Factory



Project

Metering Skid
Monitoring and Control

Client

Jordanian Egyptian FAJR
Company

Project Location

Jordan

Project Description

Extension of gas pipelines at
AI-Snobar Hygienic Paper
Mill Co Ltd factory metering
station.

Benefits to Client

- Regulate the flow of natural gas from the pipeline to AI-Snobar factory
- Connect AI-Snobar metering station to both the central control rooms in Aqaba and Amman
- Manage the pipeline operations
- Optimize performance levels
- Reduce risks per point along the pipeline

Scope

The implementation of SCADA system that included:

- Project management
- Panel building
- Engineering

Aqaba Oil Terminal

Project

Emergency Shut Down (ESD) Systems

Client

Egyptian Maintenance Company

Project Location

Jordan

Project Description

Giza Systems was awarded the deployment of the Emergency Shut Down (ESD) systems, as part of the Aqaba Oil Terminal Development Project in Jordan.

Benefits to Client

- Increase efficiency of operations
- Enhance safety
- Allow for timely detection of product loss and immediate management
- Protect the environment at the plant

Scope

Deployment of Siemens central Emergency Shut Down (ESD) control systems that process a specific routine to control critical alarms which are identified beforehand based on the client's needs. The deployment included the following:

- Design
- Engineering
- Panel assembly
- Testing and commissioning



Rashid Petroleum

Project

Automatic Identification System (AIS)

Client

Rashid Petroleum Company

Project Location

Egypt

Project Description

Giza Systems and Giza Systems Distribution were contracted for the setup of the Automatic Identification System to serve platforms.

Benefits to Client

- Vessel tracking
- Reduce environmental concerns
- Communicate positional data for vessels and shore stations
- Enhance visibility and transparency of vessel movements
- Enhance safety for platforms and staff

Scope

Design, supply and plan for the setup of the Automatic Identification System based on IMO standards and mandates for large ships and open water.

The implementation of the AIS encompassed the following:

- Hardware and software installations and system configuration
- Stabilization, testing and integration of solution with existing infrastructure
- Ensure offshore surveillance and situational awareness
- Cover requirements for collision avoidance



Gasyle Pipeline SCADA Systems in Lebanon

Project

Gasyle Pipeline SCADA Systems in Lebanon

Client

Technical Gas Services Company (TGS)

Project Location

Lebanon

Project Description

Giza Systems was selected to implement the rehabilitation and commissioning of the Gasyle Pipeline SCADA systems in Lebanon

Benefits to Client

- Full control and monitoring
- Reliable and efficient gas delivery
- Enhanced stability of electricity generation

Scope

Giza Systems was assigned the commissioning and startup services of the project, which entailed implementing SCADA and RTU solutions across three sites: DACCPP Power Plant Station, T-Oil Station, and The Border Station.

KSA

South Ghawar Gas Separation Plant

Project

South Ghawar Gas Separation Plant

Location

Eastern Province

Client

Japanese Gulf Company (JGC)

End User

Saudi Aramco

Project Description

Engineering, Procurement & Construction of security network system including HCIS Fencing and Security Equipment Building at South Ghawar Gas Separation Plant

Benefits

- Security of people and assets
- Optimized responsiveness and efficiency

Scope

- Video Assessment and Surveillance System (VASS)
- Security Access Control (SACS)
- Physical Security System
- Automatic License Plate Recognition System (ALPR)
- Perimeter Fence
- Security Equipment Building
- Integration with existing Aramco Central Center





West, East & Central Africa

Kenya Pipeline Company

Project

Nairobi Pump Station

Client

Kenya Pipeline Company

Project Location

Nairobi, Kenya

Project Description

Installation of Medium Voltage (MV), Low Voltage (LV) and Soft Starter Switchboards.

Benefits to Client

- Enhance efficiency of the network

Scope

Giza Systems was awarded the project to design, supply, install, and commission Medium Voltage (MV), Low Voltage (LV) And Soft Starter Switchboards at the Nairobi Pump Station (Ps 21).

The scope also included:

- Commissioning and testing of installed systems serving Nairobi Pumping Station Ps 21
- Design of new switchboards to fit within the existing switchboard room without the addition of any new cable connections

Integrated Safety Platform and Fire & Gas Detection System for Sapele Gas Metering Station

Project

Rehabilitation of Sapele Metering Station

Client

Seflam SGL - EPC Contractor

End Client

Nigerian Gas Company

Project Location

Nigeria

Project Description

Awarded integrated safety platform and fire & gas detection systems for Sapele Gas Metering Station at Delta State, Nigeria

Benefits to Client

Integrated, automated safety platform
“SIL III Certified”

- Unified full monitoring and control system
- Better responsiveness in cases of emergency
- Rendering the station and surrounding areas safe from fire and gas accidents
- Availability of operational spare parts to sustain performance of installed systems

Scope

Partnering with Siemens S..A., the scope consists in implementation of integrated safety platform and fire & gas detection system for Sapele Gas Metering Station including FAT and SAT.



Maungu Pump Station

Project

Integrated Automation Solutions

Client

Kenya Pipeline Company

Project Location

Kenya

Project Description

Giza Systems was awarded the supply, installation and commissioning of Medium Voltage (MV), Low Voltage (LV) and Variable Speed Drive (VSD) switchboards at Maungu pump station.

Benefits to Client

- Minimize and eliminate various maintenance problems
- Contribute to solving a number of pipe network issues
- Ensure the smooth, proper and continuous operations at the station
- Reduce operating costs
- Enhance reliability
- Support the efficiency of Kenya Pipeline Company's network
- Further contribute to the transformation of the Kenyan oil and gas infrastructure

Scope

- Commissioning and testing of the installed systems serving Maungu pumping station
- Design of new switchboards to fit in the existing switchboard room using the existing cables
- Modification and replacement of the fluid coupling mechanism with direct coupling and VSD
- Medium Voltage (MV) switchboards
- Low Voltage (LV) switchboards
- Variable Speed Drive (VSD) switchboards





Gulf

Salwa Industrial Area

Project

SCADA Systems

Client

PETROSERV
Limited

Project Location

Qatar

Project Description

Giza Systems was awarded the pumping station No.2 project at Salwa Industrial Area.

Benefits to Client

- Real-time monitoring
- Improvement of efficiency, performance of maintenance, and generation of reports

Scope

Supply engineering, integration, commissioning and installation of RPs and associated pipelines.



Thank You!

Giza Systems, a leading digital transformation enabler and systems integrator in the MEA region, designs and deploys industry-specific technology solutions for asset-intensive industries such as the Telecoms, Utilities, Oil & Gas, Smart Mobility and other market sectors. Giza Systems helps its clients streamline their operations and businesses through their portfolio of solutions, managed services, and consultancy practice. Giza Systems' team of 2400+ professionals are spread throughout the region with anchor offices in Cairo, Riyadh, Dubai, Doha, Nairobi, Dar es Salaam, Kampala and New Jersey, allowing the Company to service an ever-increasing client base in over 40 countries. For more information, please visit <http://www.gizasystems.com>.