

Berksan Engineering & Construction



25 YEARS OF HISTORY
2023



INTRODUCTION

- 45 Major Project in 25 years
- 18 Different Countries
- Berksan Business Line :
 - Electrical Design Engineering
 - MEP Construction for Buildings
 - E&I Erection for Industrial Plants
 - Piping Erection for Industrial Plants
 - Powerline (Gas Turbine - Steam Turbine - Generator) installation
 - HRSG Erection,
 - Equipment Erection for Industrial Plant
- Working with top construction companies, Bechtel, Fluor, GE, SMS Mitsubishi, Enka, SK, Acciona, Parsons, Alstom, Danielli, Nesma&Partners, TAV, Samsung, Taikisha, Rönesans...

- More than 10.000.000 manhours without LTI
- 17.000 MW Power Plants
- 24 Major Industrial Projects
- 21 Major Building Projects

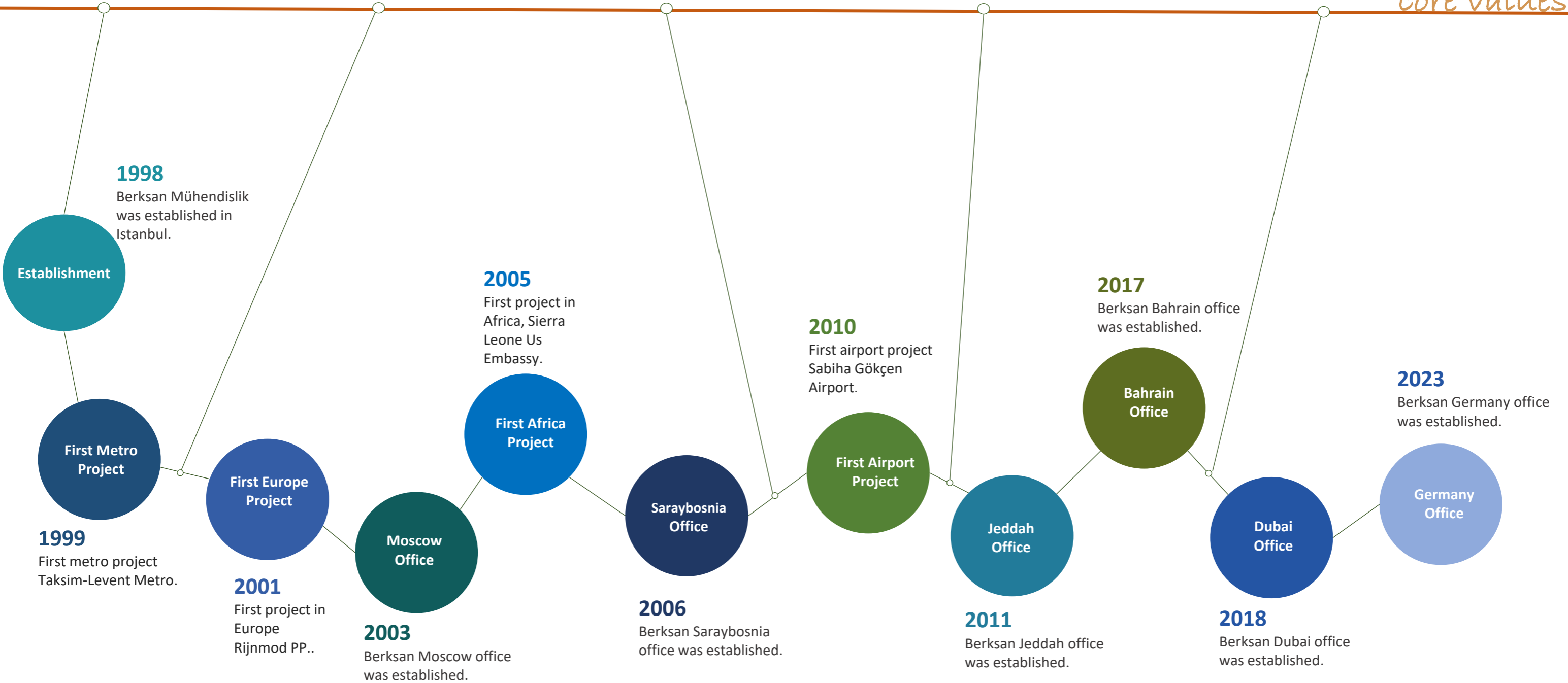


a weal future needs cooperative effort



Milestones

core values



To complete every work properly and meet the expectations of clients while rising a unique high quality level.

To uphold the values of the company culture, while being sensitive to and in communication with the other companies cultures.

To enhance the welfare of the community where the company operates.



25 YEARS OF HISTORY
2023

Health and Safety

Berkas has the International consciousness and moral of HSE.

Zero Accident Philosophy is to be achieved with a Behaviour Based Safety Program in order to eliminate the possible incidents and diseases at Construction area before they happen.



"All injuries and occupational diseases can be prevented."



Fully Participation

Safety is the responsibility of every Berkas personnel, and active participation in the awareness and prevention of incidents is mandatory for everyone.

Organization and Planning

Berkas conducts risk analysis and implements preventive measures during the organization and planning stages of all activities.

Inspection

Continuous inspection ensures the correctness and safety of our workers' behavior throughout the activities.

Continuity

Berkas maintains a constant focus on safe working practices through incentive programs and systematic training until the project's completion.

Development

Any safety breach, such as "near misses," "first aid incidents," "recordable injuries," and "Lost Time Incidents," is reported and carefully evaluated to prevent future incidents.

Conclusion

We firmly believe that all injuries and dangerous events can be prevented.

Quality Assurance

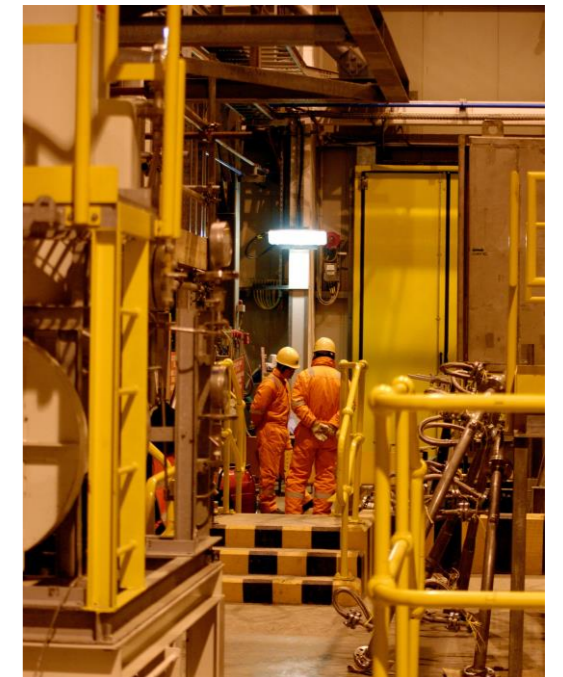
The Quality Management System is dedicated to enhancing customer satisfaction through the following processes:

- Quality Policy
- Quality Targets
- Quality (Assurance System)
- Process Definitions
- Process (Work) Flow Charts
- Instructions
- Supporting Softwares
- Supporting Documentation

These components work together to ensure the delivery of high-quality products and services, meeting and exceeding customer expectations.

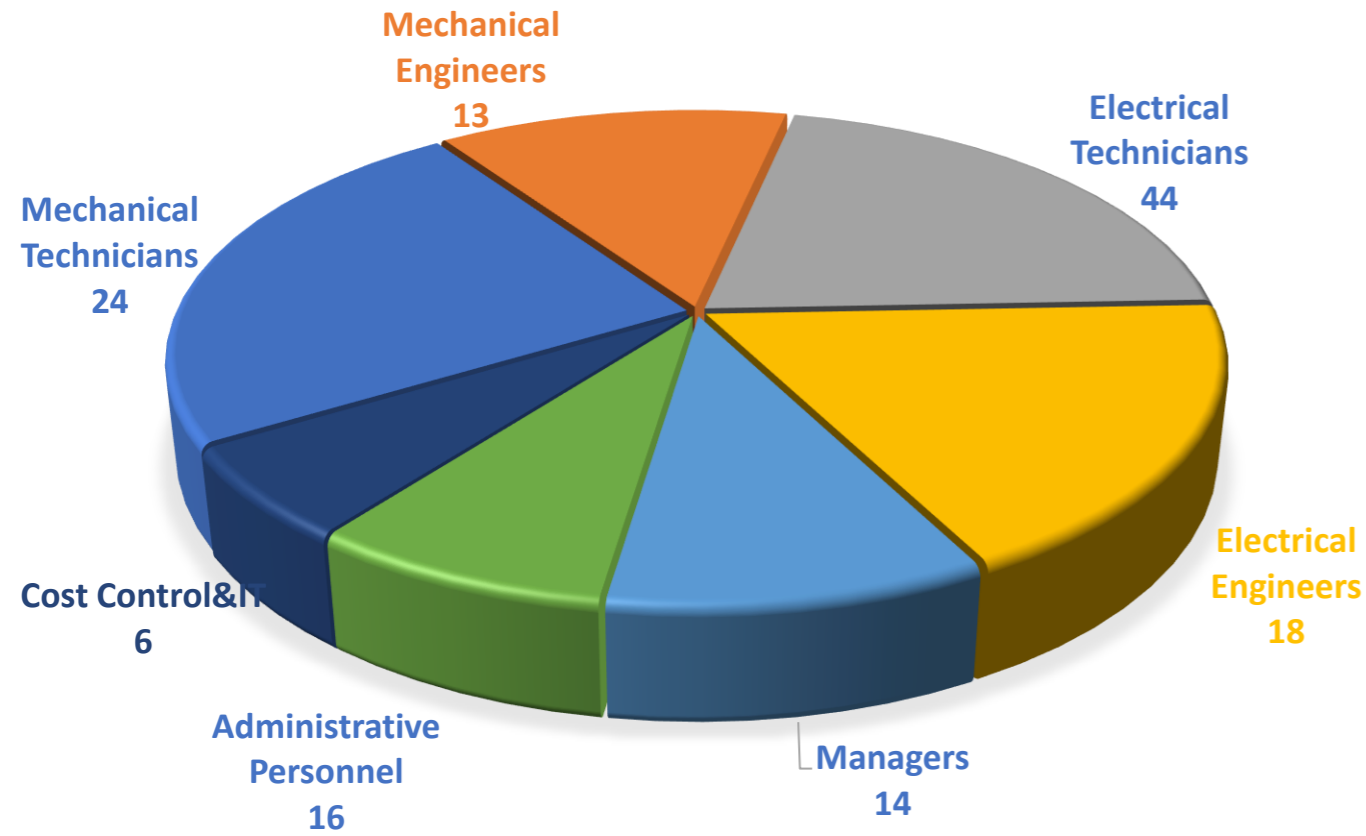
Continuous improvement approach is established according to the "Deming Cycle" for each process;

- 1- Plan
- 2- Do
- 3- Check
- 4- Act

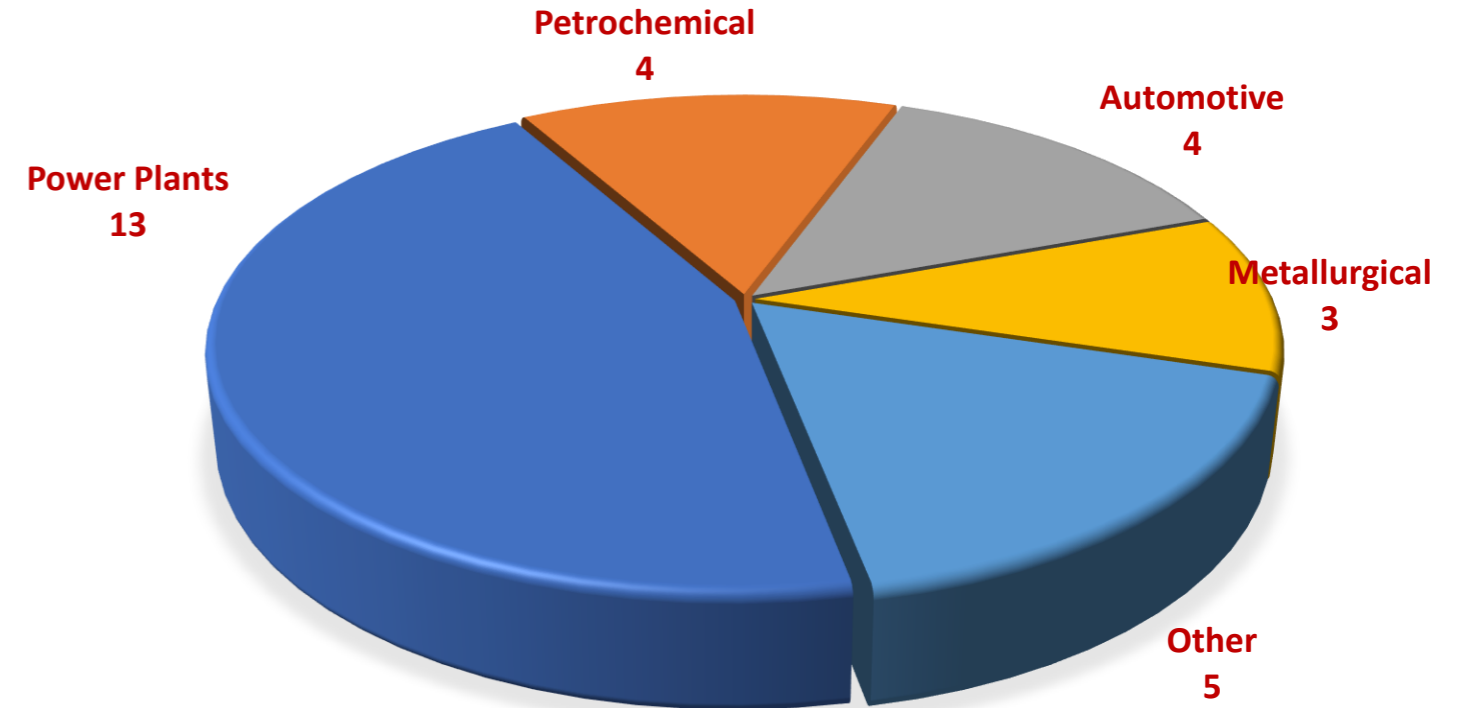


OVER THE COURSE OF 25 YEARS, WE HAVE ENGAGED IN 49 DIVERSE PROJECTS SPANNING 18 DIFFERENT COUNTRIES

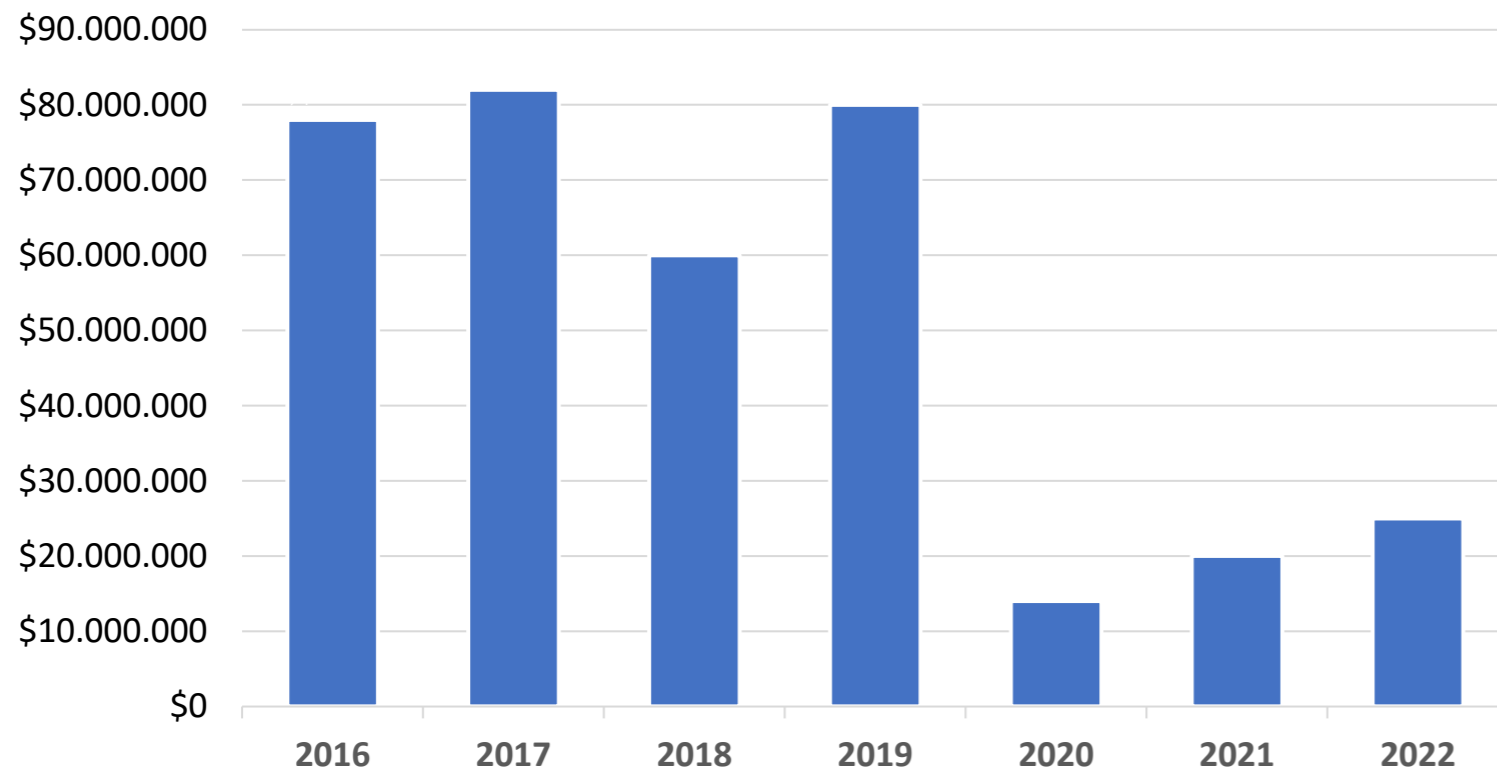
KEY STAFF PERSONEL



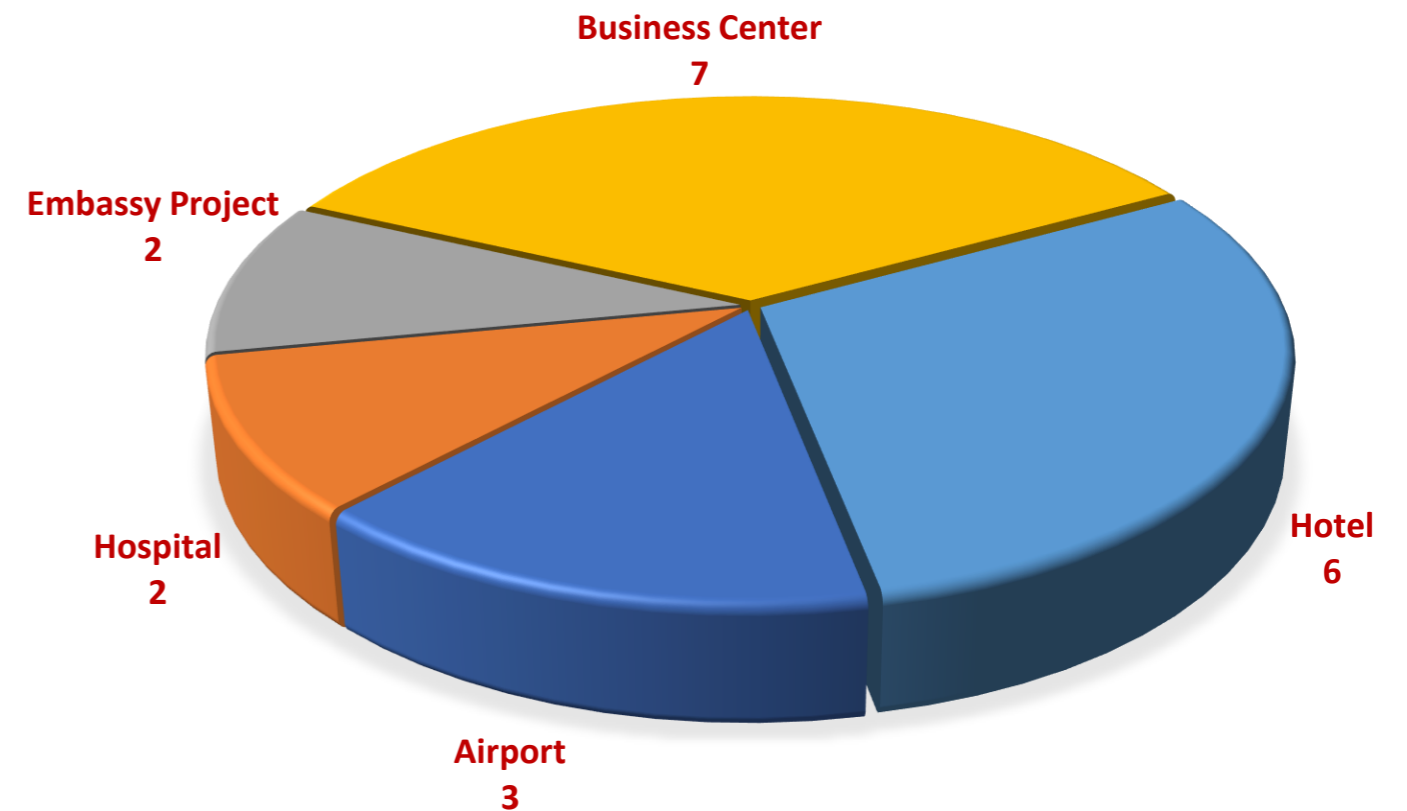
MAJOR INDUSTRIAL PROJECTS



TURNOVER PER ANNUM LAST SEVEN YEARS



MAJOR BUILDING PROJECTS





Highlight of Major Projects Industrial

-
- 1540 MW Gebze Power CCGT Plant
 - 770 MW Adapazarı Power CCGT Plant
 - 800 MW Rijnmod Power CCGT Plant
 - 1200 MW Afşin-Elbistan Coal Fired Plant
 - 770 MW Boufarik Power CCGT Plant
 - 900 MW Erzin Power CCGT Plant
 - 450 MW Tufanbeyli Coal Fired Plant
 - 800 MW Surgut CCGT Plant
 - 400 MW Shatura CCGT Plant
 - 110 MW Karadeniz Power Ship
 - 1570 MW Mary-3 CCGT Plant
 - 1200 MW Hamitabat CCGT Plant
 - 40 MW Biomass Power Plant



POWER PLANTS

Sakarya / Turkey

Gebze Power Plant

1540MW Natural Gas Combined Cycle
2003

Bechtel - (USA) , Enka A.Ş. -(Turkey) J.V.



Gebze Power Plant is located 150km east of Istanbul. Natural gas is supplied by BOTAS, the Turkish state-owned gas company.

The plant is based on 2x770MW power block each featuring two gas turbines, two vertical heat recovery steam generators and one 260MW steam turbine.

In the power plant natural draft dry cooling towers serve each power block.

Gas turbines by GE, steam turbine by Alstom, HRSG by CMI, cooling system by EGI.

Electrical Scope of Works

MV System
LV System
DCS System
Iso Busduct and Generator Circuit Breakers
Black Start Generators
Heat Tracing System
Cathodic Protection System
Steam Tracing System

Instrumentation System
Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-Commissioning
Commissioning Support
And Design Engineering for Lighting System, Earthing System, Lightning Protection System, and Fire Alarm System.

Sakarya / Turkey

Adapazari Power Plant

770MW Natural Gas Combined Cycle
2003

Bechtel - (USA) , Enka A.Ş. -(Turkey) J.V.



Adapazari Power Plant is located 150km east of Istanbul, close to city of Sakarya. Natural gas is supplied by BOTAS, the Turkish state-owned gas company.

The plant is based on 770MW power block featuring two gas turbines, two vertical heat recovery steam generators and one 260MW steam turbine.

Gas turbines by GE, steam turbine by Alstom, HRSG by CMI, cooling system by EGI.

Electrical Scope of Works

MV System
LV System
DCS System
Iso Busduct and Generator Circuit Breakers
Black Start Generators
Heat Tracing System
Cathodic Protection System
Steam Tracing System

Instrumentation System
Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-commissioning
Commissioning Support
And Design Engineering for Lighting System, Earthing System, Lightning Protection System, and Fire Alarm System

Rotterdam / The Netherlands

Rijnmod Power Plant

800MW Natural Gas Combined Cycle
2004

Bechtel - (USA) , Enka A.Ş. -(Turkey) J.V.



Rijnmod Power Plant is located 15km far from Rotterdam.

The Rijnmod Power Plant, is a natural -gas fueled facility with a nominal 790MW electricity and 350 tones per hour of steam net output.

The plant consist of two combustion turbine generators, two fired heat recovery steam generators and one lateral exhaust steam turbine generator in a 2x2x1 configuration. Plant cooling is provided by a mechanical draft, plume-abated cooling tower, with make up water from the nearby petroleum haven, following processing through an Acti-floc clarifier.

Gas turbines by Siemens, steam turbine by Alstom, HRSG by Standartfazel.

Electrical Scope of Works

MV System
LV System
DCS System
Iso Busduct and Generator Circuit Breakers
Black Start Generators
Heat Tracing System

Instrumentation System
Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-Commissioning
Commissioning Support
And Design Engineering for Lighting System, Earthing System, Lightning Protection System, and Fire Alarm System.

Kahramanmaraş / Turkey

Afşin Elbistan B Power Plant

4x360MW Coal Fired
2005

Enka A.Ş. , Gama A.Ş. , Tekfen A.Ş. , Tokar A.Ş. -(Turkey)
Mitsubishi Heavy Industry -(Japan) , Babcock -(Germany) J.V.



Af in-Elbistan B Thermal Power Plant is located in Kahramanmaraş, southeast of Turkey.

The plant is a ignite fired facility with a 4x360MW nominal electricity output.

Execution of the project has been included the construction and erection of boilers and bunkers, coil stock yard and coil handling system, stocks, flue gas desulphurization storm meter system, four steam turbojets, the slag and ash handling, the row water supply system,

The water treatment plant, the cool handling system, the cooling system, all ancillary plants and all operation and auxiliary buildings (Workshop, Mill Repair Ahop, Operation Building) of the plant.

Electrical Scope of Works

MV System,
LV System,
DCS System,
Iso Busduct and Generator Circuit Breakers
Black Start Generators
Heat Tracing System

Instrumentation System
Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-commissioning
Commissioning Support

Kahramanmaraş / Turkey

Afşin Power Plant Coal and Ash Conveyors 2005

Gama Endüstri Tesisleri A.Ş. -(Turkey)



Afşin-Elbistan B coal fired power plant has fully automated conveyor systems feeding power plant with coal and transferring waste -ash out.

Coal and ash conveyors have 4500t/h coal and 1500t/h ash carrying capacity. Coal conveyors are 4918m and ash conveyors are 2572m length of a total 7490m conveyor system

Conveyor systems have 5.5MW total installed power.

Electrical Scope of Works

Design Engineering, Material Procurement and Installation Works for ;

- MV System
- LV System
- Scada System
- Lighting System
- Earthing System



- Installation Works
- Testing
- Pre-commissioning
- Commissioning Support
- And Design Engineering for MV & LV Distribution System,Lighting System,Scada Control System,Earthing System

Boufarik/Algeria

Boufarik Power Plant

770MW Natural Gas Simple Cycle
2012

GE - (USA) , Gama Power. -(Turkey) Consortium



Construction of a Gas Turbine Power Plant in Boufarik, with a total power output of 750 MW is to be realized for Sonelgaz.

The Power Plant has 3 GE 9FA gas turbines, main equipments as well as HV switchyard and all balance of plant equipments.

With its completion the plant will generate energy around 4,000 GWh per year which will have a significant contribution to energy production in Algeria and provide electricity to more than 1 million homes by improving energy security in the country

Electrical Scope of Works

Installation, testing, pre-commissioning and commissioning support works for ;

- MV System
- LV System
- DCS System
- Iso Busduct and Generator Circuit Breakers
- Black Start Generators
- Heat Tracing System

- Instrumentation System
- Lighting System
- Earthing System
- Fire Alarm System
- CCTV and Security System
- Telephone and Data System



Mechanical Scope of Works

Installation, testing, pre-commissioning and commissioning support works for ;

Centerline Erection

- Gas Turbines, 3xGE-9FA
- Air Filter System and Inlet Duct
- Lube Oil System
- CO2 System
- Hydrogen Dry System
- Instrument Air System
- Wash Water System
- Exhaust Diffuser&Duct
- All on Board Piping Works

Bop Systems

- Demin Water System
- Closed Cooling System
- Fuel Gas System
- Condansate System
- Fire Fighting System
- Instrument Air System
- GT Drain System
- BOP Equipment Installation
- Water Treatment Plant

Hatay / Turkey

Erzin Power Plant

900MW Natural Gas Combined Cycle
2014

GE - (USA) , Gama Power. - (Turkey) Consortium.



Erzin (CCGT) Power Plant is located in Erzin southeast of Turkey.

The plant is based on a multishaft configuration that comprises two gas turbines (209FB), steam turbine (MTD 60) and three generators (GE 330H), two horizontal heat recovery steam generators.

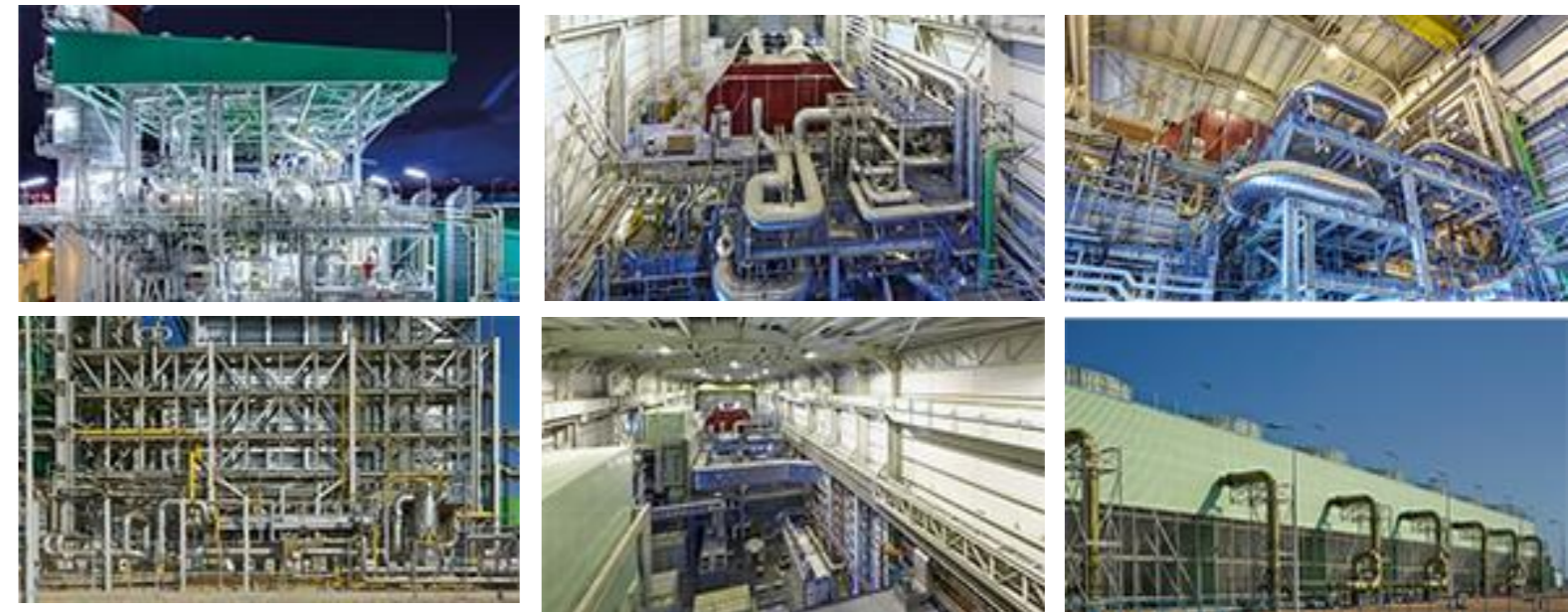
Gas turbines and generators by GE, steam turbine by Skoda, HRSG by Doosan

Centerline Erection

Installation, testing, pre-commissioning and commissioning support works for;

Gas Turbines, 2xGE-9FB
Steam Turbine, 1xSkoda - MTD 60
Generators, 3xGE-330H
Condenser System, 1xFW
Surface Steam Condenser
Air Filter System and Inlet Duct
Lube Oil System

CO2 System
Hydrogen Dry System
Instrument Air System
Wash Water System
Exhaust Diffuser&Duct
All on Board Piping Works



Bop Piping Works

Installation, testing, pre-commissioning and commissioning support works for ;

Main Steam System
Demin Water System
Feed Water System
Closed Cooling System
Fuel Gas System
Condensate System
GT & ST Drain System
Hydrolic System

Potable Water System
Service Water System
Sampling System
Fire Fighting System
Instrument Air System
BOP Equipment Installation
Water Treatment Plant
All Auxiliary System

Adana / Turkey

Tufanbeyli Power Plant

450MW Coal Fired
2015

SK Construction & Engineering -(South Korea)



Tufanbeyli thermal power plant is located in Tufanbeyli, near Adana, southeast of Turkey.

The plant is, based on 3x150MW power block each coupled with an individual steam turbine ,and disagned to generate 3 billion kWh electric energy by consuming 7.2 million ton coal per year.

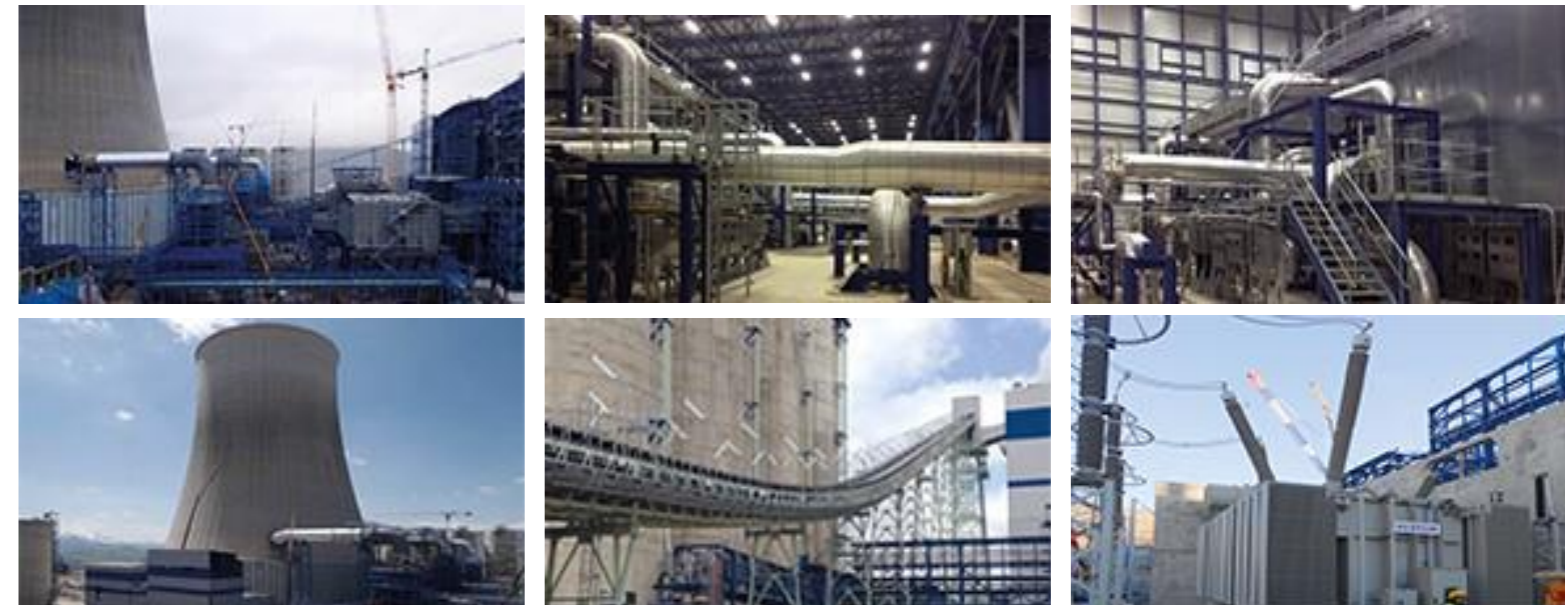
Tufanbeyli Power Plant one of the most environment friendly plants in Turkey with FGC technology.

Power systems by Doosan, steam turbine by Skoda.

Electrical Scope of Works

MV System
LV System
DCS System
Iso Busduct and Generator Circuit Breakers
Black Start Generators
Heat Tracing System

Instrumentation System
Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-commissioning

Surgut / Russia

Surgut Power Plant

2x400MW Natural Gas Combined Cycle
2011

GE - (USA) , Gama Power. -(Turkey) Consortium



Surgut Power Plant is located in Surgut in Hanti-Mansi region of Russia.

The plant is configured as single shaft with 2x400MW electric output. Each unit has a gas turbine (GE 9FA), a generator (GE 390H), a steam turbine (GE D10) and a horizontal heat recovery steam generator.

Gas and steam turbines by GE, HRSG by CMI.

Electrical Scope of Works

Installation, testing, pre-commissioning and commissioning works for ;

MV System

LV System

DCS System

Iso Busduct and Generator Circuit Breakers

Black Start Generators

Heat Tracing System

Instrumentation System

Lighting System

Earthing System

Fire Alarm System

CCTV and Security System

Telephone and Data System



Mechanical Scope of Works

Installation, testing, pre-commissioning and commissioning works for ;

Gas Turbine and Steam Turbine Erection

Generator Erection

Lube Oil System

Fuel Gas System

Seal Oil System

CO2 System

All Piping Works for Gas Turbine
and Steam Turbine

Air Inlet and Air Filter System

Condenser System

Shatura / Russia

Shatura Power Plant

400MW Natural Gas Combined Cycle
2010

GE - (USA) , Gama Power. -(Turkey) Consortium



Shatura Power Plant is located in Shatura 100km south of Moscow.

The plant has 400MW electric output with its single shaft combined cycle configuration consist of a gas turbine (GE 9FA),a generator (GE 390H), a steam turbine (GE D10) and a horizontal heat recovery steam generator.

Gas and steam turbines by GE, HRSG by CMI

Electrical Scope of Works

MV System
LV System
DCS System
Iso Busduct and Generator Circuit Breakers
Black Start Generators
Heat Tracing System

Instrumentation System
Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-Commissioning

İstanbul /Turkey

Karadeniz Power Ship KPS-6 Irem Sultan

110 MW On Dual Fuel (HFO and Gas Fired)

2011

Cimtaş Shipyard (Turkey)



KPS IREM SULTAN is a power station vessel, built by the Fincantieri Marghera Shipyard in Venice, Italy in 1984. By 2014, she was transformed into a powership at the Çimta Shipyard in Başiskele/Gölcük, Kocaeli.

The ship is 23.990 gross tons, 157,78m long and 30m wide.

The power plant of ship consists of 6 ea of MAN 18V51/60 DF-Dual Fired Engine - Generator sets. There are 6 ea of HRSG (Heat Recovery Steam Generators) coupled with each engine's exhaust stack to generate steam to run 2x10 MW steam turbine-generator sets. The total capacity of the ship is 110MW.

I.

Electrical Scope of Works

MV System
LV System
DCS System
Heat Tracing System
Instrumentation System

Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-commissioning

Mary / Turkmenistan

Mary-3 1574 MW Combined Cycle Power Plant 2018

Çalık Enerji A.Ş.



The combined-cycle power plant is a next-generation facility. Four 9 FA gas turbines, four waste heat boilers designed to generate steam, two steam turbines and other equipment will be installed at the new power plant.

The coefficient of performance (COP) of a simple-cycle power plant is 34.2 per cent on average, the COP of a combined-cycle power plant is about 57 per cent. The amount of natural gas used to generate 1 kilowatt of electricity will be reduced significantly: from 380 to 216 grams. Combined-cycle power plants are attractive in ecological terms, as the volume of combustion products, namely carbon dioxide, emitted in the air per unit of energy produced is reduced.

The 1,574MW power plant will allow increasing the capacity of the Mary state power plant by more than 2 times that will become the largest energy enterprise in the region

Mechanical Scope Of Works

Installation, testing, pre-commissioning and commissioning support works of ;

Centerline Erection

Gas Turbines, 4 x GE 9FA

Steam Turbine

Generators

Condenser System, 2 x Surface Steam Condenser

Air Filter System and Inlet Duct

Lube Oil System



CO2 System

Hydrogen Dry System

Instrument Air System

Wash Water System

Exhaust Diffuser&Duct

All on Board Piping Works

Kırklareli / Turkey

Hamitabat 1200 MW Combined Cycle Power Plant 2017

Gama Power A.Ş.



Construction of a Combined Cycle Power Plant (CCPP) in Kırklareli with a total power output of 1,200 MW is to be realized for HAMITABAT Elektrik Üretim ve Ticaret A. ...

Power plant is designed for 25 years lifespan. Plant is comprised of two blocks and each block has single-shaft configuration of 1 (one) Gas Turbine Siemens SGT5-8000H, 1 (one) Steam Turbine SST5-5000, 1 (one) Heat Recovery Steam Generator.

Upon completion of the project, the power plant will be the highest capacity H-class among the 50 Hz market in the world.

Mechanical Scope Of Works /Centerline Erection

Installation, testing, pre-commissioning and commissioning support works of ;

Gas Turbines, 2 x Siemens SGT5-8000H
Steam Turbine, 2x SST5-5000
Generators, 3xGE-330H
Condenser System, 2xFW
Surface Steam Condenser
Air Filter System and Inlet Duct
Lube Oil System

Instrument Air System
Wash Water System
Exhaust Diffuser&Duct
Closed Cooling Water System
All on Board Piping Works



HRSG (Heat Recovery Steam Generation) Erection

Installation, testing, pre-commissioning and commissioning support works of ;

Main Structural Steel
Stack
Modules
Casing
Drum
Internal Piping
External Piping
Auxiliary Steel, Platforms, Ladders etc
Sampling System

Chemical Dosing System
Cems
Feed Water Pumps
Main Cooling Pump House
Insulation
Painting
Hydro Test

Bolu / Turkey

Biomass Power Plant 2023

Aalborg Energie Teknik a/s



The chicken litter-fired and environment friendly power plant will produce 35 MWe in Turkey. Boiler capacity: 99.5MWth, 92 bara, 472°C, Electrical power \leq 35MWe

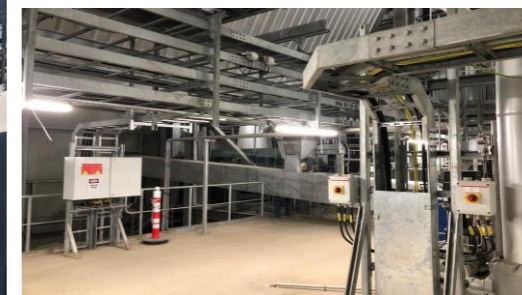
The plant will annually combust around 250,000 tonnes of biomass, which would otherwise be subject to uncontrolled disposal, and produce 35 MWe of green electricity for export to the grid instead. At the same time, the plant will produce about 35,000 tonnes ash per year, which can be used as a bacteria-free and nutrient-rich fertiliser.

The in-house power consumption for the power plant is only approx. 2,5% of the fuel heat input, and this increases the net power output. This provide to produce more power for export to the grid.

Electrical Scope Of Works

Material supply, Installation and testing works of;

- Cable Containment System
- Cables and Busbars
- Electrical Equipments
- Heat Tracing System
- Earthing System
- Lighting System



Mechanical Scope Of Works

Material supply, Installation, testing, pre-commissioning and commissioning support works of ;

- Small piping for the following systems;
- Ash screw cooling
- Blowdown
- Purge gas
- Rezigas to burner
- Condensate sealing water
- Burner cooling air

- Natural gas
- Aux cooling
- SNCR
- Raw water
- Demin water
- Instrument and Service Air
- Drain from sampling & Summer cooler

-
- Sakhalin OPF Plant
 - Yemen LNG Upstream Plant
 - Tüpras Refinery
 - Sibur Polymer Plant



PETROCHEMICAL PLANTS

Sakhalin Onshore Facility Processing (OPF) 2008

Bechtel - (USA) , Enka A.Ş. -(Turkey) J.V.



The onshore processing facility (OPF) is located off the north eastern shore of Sakhalin Island, 7km inland from the landfall of the offshore gas pipelines from the Lunskeye Platform.

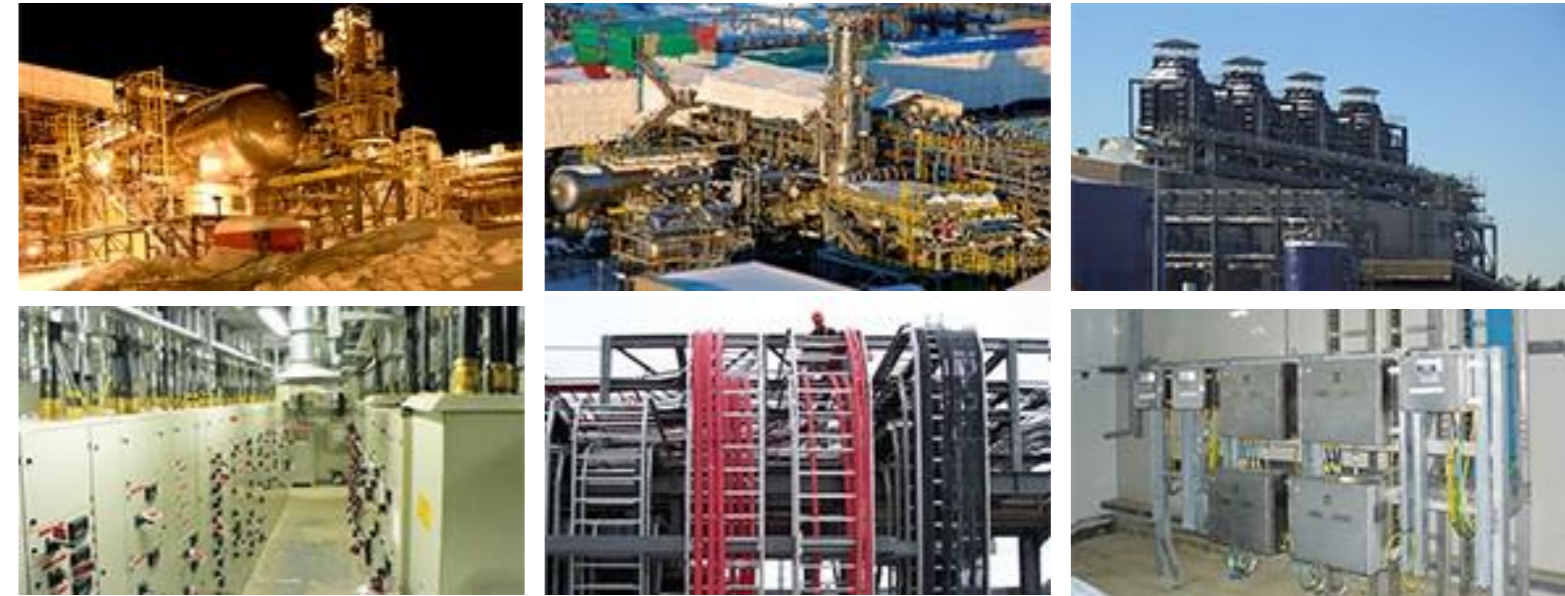
The primary function of the facility is the processing of gas and condensate received from the Lunskeye field, prior to pipeline transportation to the oil export terminal and LNG facilities in Prigorodnoye at the southern tip of Sakhalin Island. It also receives oil and gas streams from the platforms for onward transportation by pipeline to Prigorodniye.

At full capacity the OPF will be capable of processing 1.800 million SCF/d (51 million cubic meter a day) and about 60.000 barrels of condensate/oil per day. The OPF facilities also includes 120MW power plant to generate power

Electrical Scope of Works

Electrical and instrumentation works for;

Main substation building, Meg regeneration building, Power generation building, Compressor house, Crude oil booster pump building, Train-1/Train-2/Train-3, Tank areas, Pipe racks, Flare area, All utility buildings, Control building, Re-injection unit, Sewage treatment building, Condensate unit, Water wells, Disposal injection wells, Inlet and flare drum, Chemical storage unit.



Installation, testing, pre-commissioning and commissioning works for ;

- | | |
|------------------------|---------------------------|
| MV System | Lighting System |
| LV System | Earthing System |
| DCS System | Fire Alarm System |
| Heat Tracing System | CCTV and Security System |
| Instrumentation System | Telephone and Data System |

Design and Engineering works for ;

- Lighting System, Earthing System, Lighting Protection System and Fire Alarm System for all plants,
Electrical System Design and Engineering for Non-Industrial Buildings,

Marib / Yemen

Yemen LNG Facilities - Phase II Construction Work 2012

Safer Exploration & Production Operations Co. (SEPOC)



The Yemeni government has granted Yemen LNG exclusive rights to the gas reserves of the Marib area fields in block 18. The reserves currently dedicated to the project include 9.15 trillion cubic feet (TCF) of proven reserves and 0,7 TCF of probable reserves with 1 TCF allocated to the domestic market. The reserves were re-certified by the independent consultants DeGolyer and MacNaughton in May 2005.

The reservoirs have been producing reliably since 1986 and proven gas reserves are sufficient to produce and export 6.7 million tons/year of LNG for at least a period of 20 years.

Associated gas is currently produced with oil from some 450 active wells and a high percentage of the reserves will be produced from fields already in production. YLNG Upstream Facilities - Phase II project is located in Safer - Marib, Yemen..

Berkas & Hawk International Joint Venture

Scope of Works

Construction Engineering, Partial Procurement, Fabrication and Construction, Test and Commissioning works for ;

3x30MW Natural Gas Electric Power Station

New Compressor Unit

New Cryogenic Unit



Infrastructural Works

Civil Works

Structural Steel Works

Architectural Works

Electrical Works

Instrumentation Works

Piping Fabrication and Erection Works

Equipment Erection Works

Kırıkkale / Turkey

Tupras Refinery Diesel / Kerosene Hydroprocessing and CCR Reformer 2008

Alsim Alarko San. Tes. A.Ş. -(Turkey)



Tupras Refinery, was established in the middle Anatolian part of Turkey in 1986, produces petroleum derivatives to supply nearby cities especially capital city of Ankara. This facility has 5 million tons/year petroleum processing capacity. Petroleum is transferred by 447km length pipeline from Ceyhan unit on the Mediterranean Sea coast.

Tupras Kırıkkale Refinery Diesel / Kerosene Hydroprocessing and CCR Reformer project consists of the construction of utility and auxiliary buildings to enable increase in the production unleaded gasoline at the Kırıkkale Tupras Refinery and to produce sulphur free diesel oil in order to obtain a higher quality, environment friendly product that conforms with EU standards.

Electrical Scope of Works

Electrical and Instrumentation works for ;

Natural Draft Cooling Towers
Energy Production Center
Boiler System
Demineralized Water Unit
SRU / Sulphur Recovery Unit
DHP / Desulphurization Unit



Installation, testing, pre-commissioning and commissioning works for ;

MV System
LV System
DCS System
Heat Tracing System
Instrumentation System

Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System

Tobolsk / Russia

Sibur Tobolsk Polymer Plant 2013

510.000 Tons/Year

Renaissance Construction. -(Russia)



Tobolsk Polymer is located in Tumen region, Western Siberia, Russian Federation.

Tobolsk-Polymer, a subsidiary of Russian petrochemical company Sibur, one of the biggest polypropylene production complexes in the world with an annual production capacity of half million tons/year of PVC.

Mechanical Scope of Works

Mechanical Equipment Installation and Piping Fabrication & Erection Works;

Piping Fabrication (550ton),
Piping Erection
Support Erection,
Chemical Cleaning and Drying,
Equipment Installation (1.200ton),
Act and Handover Documentation.



Fabrication Works
Installation Works
Testing
Pre-Commissioning
Start-up Support

-
- **Vyksa Casting & Rolling Complex**
 - **NLMK Electrometallurgical Plant**
 - **Ma'aden Aluminium Refinery**



METALLURGICAL PLANTS

Vyksa / Russia

Vyksa Casting and Rolling Complex 2008

2 Million Tonnes of hot-rolled steel coils, sheets, and strips/year

Gama Endüstri Tesisleri A.Ş. -(Turkey)



The Casting and Rolling Complex is a modern enterprise that rolls out hot-rolled steel coils, sheets, and strips for small and medium diameter pipes.

The Casting and Rolling Complex is capable of manufacturing complex pipe steel grades, including those for extra-durable and corrosion-resistant pipes. Annual capacity of the plant is 1.2 million tons with 200 standard size rolled stock.

Electrical Scope of Works

Electrical and Instrumentation works for ;

Arc furnace
Ladle furnace
Raw material handling
Scrap yard
Vacuum degasser
Fume treatment plant
Thin slab caster
Tunnel furnace

Roughing mill
Intensive cooling
Heated transfer table
Finishing mill
Water cooling
Down coiler
Coil handling
Auxiliary units (WTP, WWTP, etc.)



Installation, testing, pre-commissioning and commissioning works for ;

MV System
LV System
DCS System
Heat Tracing System
Instrumentation System

Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System

Obninsk / Russia

NLMK Electrometallurgical Plant 2014

1.500.000 Tonnes/Year

Gama Endüstri Tesisleri A.Ş. -(Turkey)



Kaluga Elektrometallurgical Plant LLC "NLMK-Kaluga" is located 80km south east of Moscow in Vorsino village.

The plant is included into the list of strategic investment projects of Russian metallurgical industry with its 1.5 million tones per year wide range production capacity of construction steel including reinforcing bars and section steel.

Production line consist of an electric arc steel meltshop and rolling shop facilities. Production range is included rebar, angle and channel steel.

Steel melting equipment by VAI SIEMENS, rolling shop equipment by SMS Meer.

Electrical Scope of Works

MV System
LV System
DCS System
Heat Tracing System
Instrumentation System

Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System



Installation Works
Testing
Pre-commissioning
Commissioning Support
Act & Handover Documentation

Ras Al Khair / Saudi Arabia

Ma'aden Aliminum Refinery 2013

Fluor Cooperation/USA



Ma'aden Aluminium Complex is located in Ras Al Khair, 90 km North of Jubail, Kingdom of Saudi Arabia.

The complex has annual production capacity of 1.8 million tons of alumina, 740.000 tons of aluminum and 380.000 tons of aluminum sheets.

Ma'aden Aluminum Complex consists of 3 main units as refinery, smelter and rolling mill. And also includes power, steam and water facilities for its internal consumption.

Berksan-Nesma&Partners J.V. Scope of Works

Design and Engineering for Main Substation Building ;

- Civil Engineering and Design
- Architectural Design
- HVAC System Engineering and Design
- MV and LV System Engineering and Design
- Material Supply for All System



- Civil Construction Works
- Architectural Works
- Electrical Installation Works
- Mechanical Installation Works

- Testing
- Start-up and Commissioning
- Training & Handover

-
- Peugeot-Citroen Car Manufacturing
 - Volvo Construction Equipment Plant
 - Volvo Truck Manufacturing Plant
 - Renault Car Factory Cooling Plant



AUTOMATIVE PLANTS

Kaluga / Russia

Peugeot-Citroen-Mitsubishi Factory (PCMA Rus) 2011

125.000 Cars/Year

Renaissance Construction (Russia)



Peugeot-Citroen-Mitsubishi Factory is, located in near Kaluga, 180km southwest of Moscow, one of the biggest joint venture investment (PCMA Rus) of French and Japanese auto groups.

The plant is assigned to manufacture 5 models of Citroen, Peugeot and Mitsubishi.

PCMA Rus has 125.000 automobile manufacturing capacity annually in its 145 hectares total area. .

Electrical Scope of Works

Design & Engineering, All Material Supply, Installation, Testing, Pre-commissioning and Commissioning works for ;

MV System
LV System
Fire alarm system
Public Announcement System
IT System

Security System
Lighting Systems
Lightning Protection System
Earthing System
BMS System



Mechanical Scope of Works

Design and Engineering works for;

Heating Center
Heating System
Cooling System
Air Conditioning System
Compressed Air System
Fire Protection System

Fluid Filling system
Clean and Wash Water System
Waste Water Treatment
Rain Water System
Sanitary System
Plumbing System

Kaluga / Russia

PCMA Car Factory Paint Shop 2011

125.000 Car/Year

TAIKI-SHA Ltd. -(Japan)



Peugeot-Citroen-Mitsubishi Factory is, located in near Kaluga, 180km southwest of Moscow, one of the biggest joint venture investment (PCMA Rus) of French and Japan auto groups.

The plant is set to 5 models of Citroen, Peugeot and Mitsubishi.

PCMA Rus has 125.000 auto manufacturing capacity annually in its 145 hectar total area.

The paint shop building for LLC "PCMA Rus" automotive assembly plant is awarded to Japan company Taikisha including design and engineering, fabrication, procurement, installation and start-up.

Scope of Works

Fabrication and Installation Works of;

Primer Booth

Base Booth

Clear Booth

Sludge Pool

Mezzanine Platforms

Dry Tanks

Transfer Tanks

Sludge Tanks

Scrubber Tanks

PT, ED Tanks



Shop Drawings

Fabrication Drawings

Fabrication

Installation

Testing

Pre-commissioning

Bursa / Turkey

Renault-Bursa Car Factory Process Cooling System 2008

Oyak Renault A.Ş. -(Turkey)



Bursa Oyak-Renault manufacturing plant is, the biggest plant of Renault Automotive Group outside the western Europe, located in Bursa 200km far from Istanbul.

It has 258.000m² closed manufacturing area in its 510.000m² territory. This facility has 360.000 automobile and 450.000 engine manufacturing capacity annually.

Oyak Renault Plant has a special importance and assembly lines in automotive vehicle industry.

Process cooling system is a very important part of the factory that provides chilled and demin water to all assembly "Robots" for body shop, welding shop and stamping shop.

Design and Engineering for Chilled Water and

Demin Water Plant

- Civil Engineering and Design
- Architectural Design
- Mechanical Process System Engineering and Design
- Piping System Engineering and Design
- MV and LV System Engineering and Design
- Process Control System and Scada System Engineering
- Material Supply for all System



- Construction Works
- Civil Works
- Structural Steel Works
- Electrical Installation Works
- Mechanical Installation Works
- Testing
- Start-up and Commissioning
- Training & Handover

Kaluga / Russia

Volvo Construction Equipment Plant 2009

Renaissance Construction -(Russia)



Volvo Construction Equipment Plant is in Kaluga 80km southwest of Moscow. Volvo company has several significant investments in Kaluga industrial zone.

The plant was built with the extensive use of new technologies to reduce CO2 emissions.

The plant, in 25.500m² closed and 15 hectare total area, manufactures Volvo's heavy duty excavators 20 up to 50 tons weigh classes.

Electrical Scope of Works

Design & Engineering, All Material Supply, Installation, Testing, Pre-commissioning and Commissioning works for ;

MV System
LV System
Fire alarm system
Public Announcement System
IT System

Security System
Lighting Systems
Lighting Protection System
Earthing System



Installation Works
Testing
Pre-Commissioning
Commissioning

Kaluga / Russia

Volvo Truck Assembly Plant 2009

15.000 Trucks/Year

Renaissance Construction -(Russia)



The total area of Volvo Plant is 55 hectares in Kaluga near Moscow.

Volvo manufactures two different models of trucks, Volvo FH and FM in this plant.

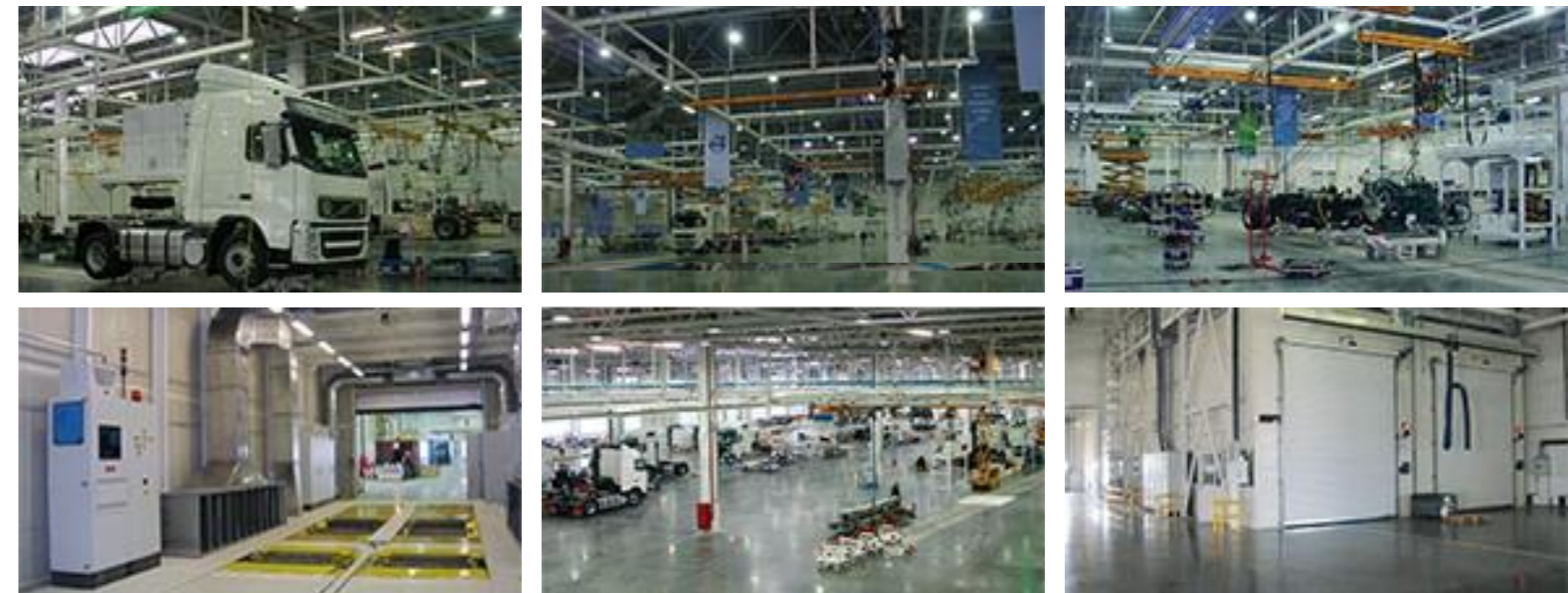
Total plant capacity is 15.000 trucks per year.

Electrical Scope of Works

Design & Engineering, All Material Supply, Installation, Testing, Pre-commissioning and Commissioning works for ;

MV System
LV System
Fire alarm system
Public Announcement System
IT System

Security System
Lighting Systems
Lightning Protection System
Earthing System



Mechanical Scope of Works

Design and Engineering works for ;

Heating Center
Heating System
Cooling System
Air Conditioning System
Compressed Air System
Fire Protection System

Fluid Filling System
Clean and Wash Water System
Waste Water Treatment
Rain Water System
Sanitary System
Plumbing System

-
- **Mary Fertilizer Plant**
 - **Garabugaz Fertilizer Plant**
 - **Rehau PVC Plant**
 - **Brisa Tire Factory**
 - **Arven Pharmaceutical Plant**



INDUSTRIAL PLANTS

Mary / Turkmenistan

Mary Fertilizer Plant 2014

1200 Tonnes Ammonia and 1925 Tonnes Urea Per Day

Kawasaki -(Japan) & Renaissance Construction -(Turkmenistan)



Mary Ammonia Fertilizer Plant is, located in Mary at southeast of Turkmenistan, operated by Turkmenkhimya, the Turkmen state-run chemical company.

The Fertilizer complex comprises ammonia and urea plants, power generation, water treatment, nitrogen production, off-site and utility facilities.

The plant has production capacity of 1,200 tonnes of ammonia and 1,925 tonnes of urea per day.

Electrical Scope of Works

Electrical and instrumentation works for;

Ammonia Plant
Urea Plant
Power Generation Plant
Boiler Plant

Water Treatment Plant
Nitrogen Production Plant
Utility Plant
Material Handling Plant



Installation, testing, pre-commissioning and commissioning works for ;

MV System
LV System
DCS System
Heat Tracing System
Instrumentation System

Lighting System
Earthing System
Fire Alarm System
CCTV and Security System
Telephone and Data System

Design and Engineering works for ;

Electrical System design and engineering for Non-Industrial Buildings

Garabogaz Fertilizer Plant 2018

MHI & GAP JV.



The plant, to be constructed in Garabogaz, northwest of the country along the Caspian Sea, will be the largest urea fertilizer plant in the country, with contracts amounting to some 1.3 billion US dollars. The complex will consist of an ammonia plant with production capacity of 2,000 ton per day and a urea plant with production capacity of 3,500 ton per day, as well as other related infrastructure and delivery facilities.

Turkmenistan has had steady economic growth in recent years due to its natural gas reserves, the 4th largest in the world. The Turkmen government is also actively seeking to enhance the value added component of natural gas products as well as expanding and diversifying exports and sales in the sector. The construction of this fertilizer plant is therefore consistent with that strategy as it will enable the increase of fertilizer exports to countries around the world in response to growing agricultural food production.

Electrical Scope Of Works

Installation, testing, pre-commissioning and commissioning support works of ;

- MV System
- LV System
- DCS System
- Iso Busduct and Generator Circuit Breakers
- Black Start Generators
- Heat Tracing System
- Instrumentation System
- Lighting System
- Earthing System
- Fire Alarm System
- CCTV and Security System
- Telephone and Data System



Mechanical Scope Of Works

Installation, testing, pre-commissioning and commissioning support works of ;

- Structural Steel,
- Steam Turbine,
- Generators,
- Condenser System,
- Air Filter System and Inlet Duct
- Lube Oil System
- CO2 System
- Hydrogen Dry System
- Instrument Air System
- Wash Water System
- Exhaust Diffuser&Duct
- All Piping Works

Moscow / Russia

Rehau PVC Factory 2007

Renaissance Construction -(Russia)



REHAU PVC Plant Project was implemented in three phases during 2004-2007.

It includes a PVC factory, production areas, warehouses, and administrative buildings.

The total area of the plant was 53.632m².

Electrical Scope of Works

- MV System
- LV System
- Lighting System
- Earthing and Lightning Protection System
- Low Current Systems
- Building Automation System
- Process Control System for Mixing Plant
- Process Control System for Production Lines



- Design Engineering
- All Material Supply
- Installation Works
- Testing
- Pre-commissioning
- Commissioning

BRISA BRIDGESTONE AKSARAY Tyre Factory Project 2017

Yeni Teknik Yapı İnşaat Ltd.



BRISA decided to invest new tyre factory in Aksaray, to meet the increasing demands of tyre.

Investment will be completed in 4 phases.

- Phase 1 includes the followings;
- Facility Buildings: 120.000 m²
- Office Buildings: 8.000 m²
- Equipment Foundations: 8.000 m³
- Roads: 32.000 m²
- Infrastructural Pipeline: 8.000 m
- Landscaping: 23.000 m²

Mechanical Scope Of Works /HVAC, Plumbing, Sanitary Systems

Installation, testing, pre-commissioning and commissioning support works of ;

- | | |
|--------------------------------------|--|
| Production Halls | Canteen |
| Press lines | Locker Building |
| Mixer Buildings #1-2-3 | Cement House |
| Raw Material Warehouse | Solvent Tank & Pump Station |
| Sulphur & Material Warehouse | Fire Water & Foam Tank Pump Station |
| Chiller Building | WS & Oil Tanks |
| Machine Cooling Water Building-1 & 2 | Spare Parts Warehouse |
| Compressor & Boiler Building | Tire Test Building |
| Administration Building | Industrial Waste Treatment System |
| | Maintenance Workshop & Office Building |



Process Piping and Process Equipment Works

Fabrication, Installation, testing, pre-commissioning and commissioning support works of ;

- | | |
|--------------------------------|----------------------------|
| Low Pressure Air | Recovery System |
| High Pressure Air | Vacuum System |
| Instrument Air | Process Oil 1267 System |
| High Pressure Steam | WS23 OIL System |
| Low Pressure System | Lube Oil System |
| Condensate System | Water System |
| Equipment Cooling Water System | Waste Gas (Exhaust) System |
| Hydraulic Water System | Chiller Water System |
| Nitrogen System | Cooling Tower Water System |
| Compressed Air For Nitrogen | Hot Water System |

Kirklareli / Turkey

Arven Pharmaceutical Plant 2017

Toksöz Group



Toksöz Group began making investments to launch biological medicine production in 2007. Arven Pharmaceuticals continues its efforts towards improving public health with its qualified researchers and personnel, who have experience in biosimilar product development and hold advanced degrees, and its biosimilar product development infrastructure, which continues to grow each day.

Toksöz Group steadily works on its largest investment in this area, which is a 28,000 square meter, high-tech product manufacturing facility for Arven Pharmaceuticals situated in the Kirklareli Industrial Zone.

Electrical Scope Of Works

Design, procurement, installation, testing, and commissioning works of ;

MV System

LV System

Lighting System

Emergency Power System

UPS Power System

Earthing & Lightning Protection System

Fire Alarm System

Public Announcement System

CCTV System

Access Control System

Data Networking System

Building Automation System



 ARVEN

Mechanical Scope Of Works

Design, procurement, installation, testing, and commissioning works of ;

Chilled Water Plant

Steam Generation Plant

Water Treatment Plant

Compressed Air Plant

Heating Center

Fire Pump House

HVAC System

Clean Rooms Ventilation System

Process Cooling Water System

Potable Water System

Rain Water System

Sanitary System

Fire Fighting System



Highlight of Major Projects Building

-
- **Madinah International Airport**
 - **Sabiha Gokcen International Airport**
 - **Bahrain International Airport**



AIRPORT PROJECTS

Madinah / Saudi Arabia

Prince Mohammed Bin AbdulAziz Madinah International Airport 2015

210.000 m²

TAV Holding-(Turkey)



The project was inaugurated on 2nd July, 2015 by The Custodian of the Two Holy Mosques King Salman bin Abdulaziz al Saud, in the presence of other major dignitaries from the Kingdom. The \$1.2 billion expansion plan consists of a three-level terminal covering over 200.000 square metres with 27 aircraft stands and boarding bridges.

For Hajj and Umrah pilgrims, who are looking to sanctify their travel with a visit to Madinah, the airport expansion plan comes as a boon. Moreover, Prince Mohammad Bin Abdulaziz International Airport (Madinah Airport) is also likely to be the harbinger of heightened economic activity and the precursor to other privatisation initiatives.

While Phase I of the airport can handle 8 million passengers, the second and third phases will be able to handle passenger traffic of 14 million and 27 million, respectively.

PMIA is the only Leed Gold Certified Airport in Gulf Region.

Electrical Scope of Works

Main Power Distribution

Lighting System

Small power System

UPS System

Grounding and Lightning Protection System

Fire alarm System

Access Control System Water

Leak Detection System Master

Clock System

Structured Network Cabling System

Public Address System

Closed Circuit TV System (CCTV)

Master AntennaTV System (MATV)

Disabled Alarm System

Audio Visual System

Air Field Lighting System

Apron Lighting

Visual Docking and Guidance System



Design Engineering

Installation Works

All Material Supply

Testing

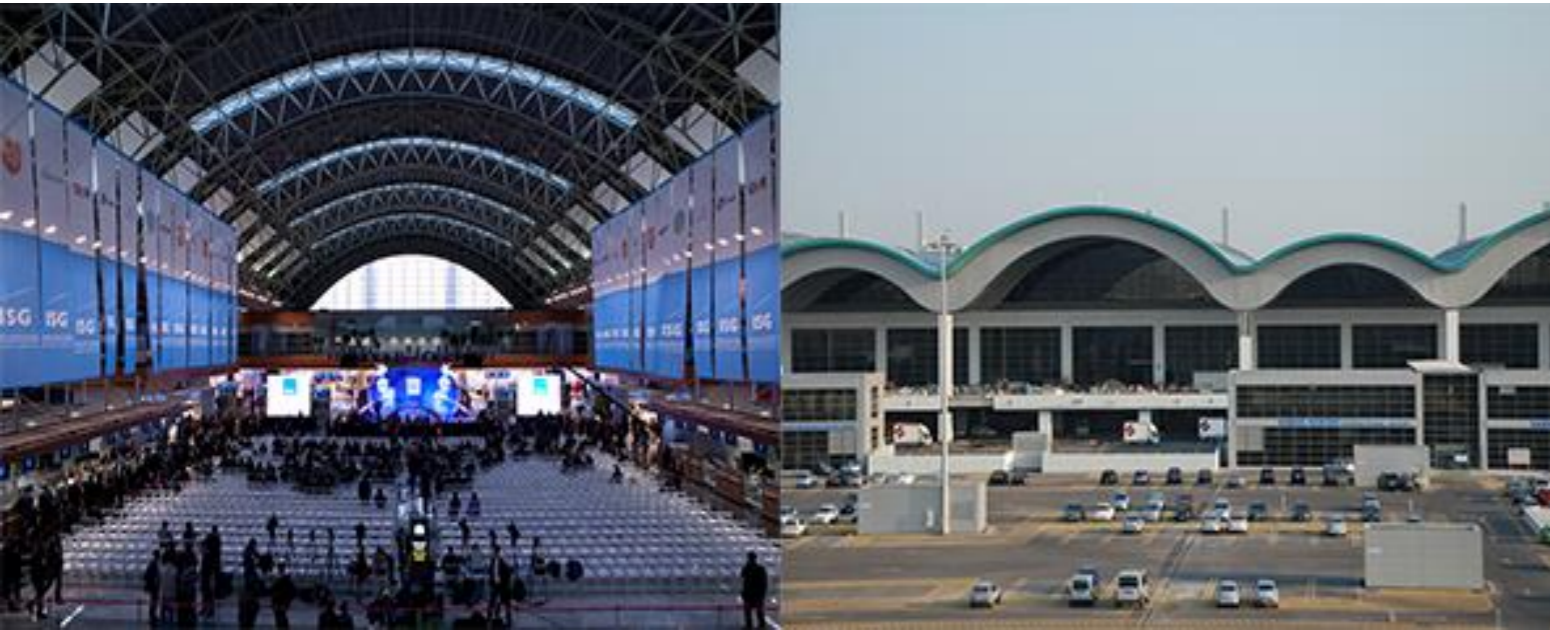
Start-up & Commissioning

Training & Handover

Istanbul / Turkey

Sabiha Gökçen International Airport 2010

Limak A.Ş.-(Turkey)



The new terminal has 25 Million annual passenger capacity conduct domestic and international flights just in one building

The features and services of the new terminal of the Istanbul Sabiha Gokcen International Airport and outlying buildings are includes a four storey car park with a capacity of about 4718 vehicles, a four storey hotel with 128 rooms, 112 check-in and 24 online check-in counters, a VIP building and apron viewing CIP halls, 5000 m² 2 food court for cafes and restaurants, a duty free shopping area with a ground of 4500 m²

Cargo terminal of the airport has 90.000 tons capacity per year.

Multy aircraft ramp system (MARS), allowing simultaneous service to 8 aircrafts with large or 16 middle sized aircraft.

Electrical Scope of Works

- Main Power Distribution
- Lighting System
- Small power System
- UPS System
- Grounding and Lightning Protection System
- Fire alarm System
- Access Control System
- Water Leak Detection System
- Master Clock System

- System Structured Network Cabling
- System Public Address System
- Closed Circuit TV System (CCTV)
- Master AntennaTV System (MATV)
- Disabled Alarm System
- Audio Visual System
- Air Field Lighting System
- Apron Lighting
- Visual Docking and Guidance System



- Design Engineering
- Installation Works
- All Material Supply
- Testing
- Start-up & Commissioning
- Training & Handover

Bahrain International Airport Modernization Project 2022

330.000 m²

Arabtec (UAE) – TAV (Turkey) Joint Venture



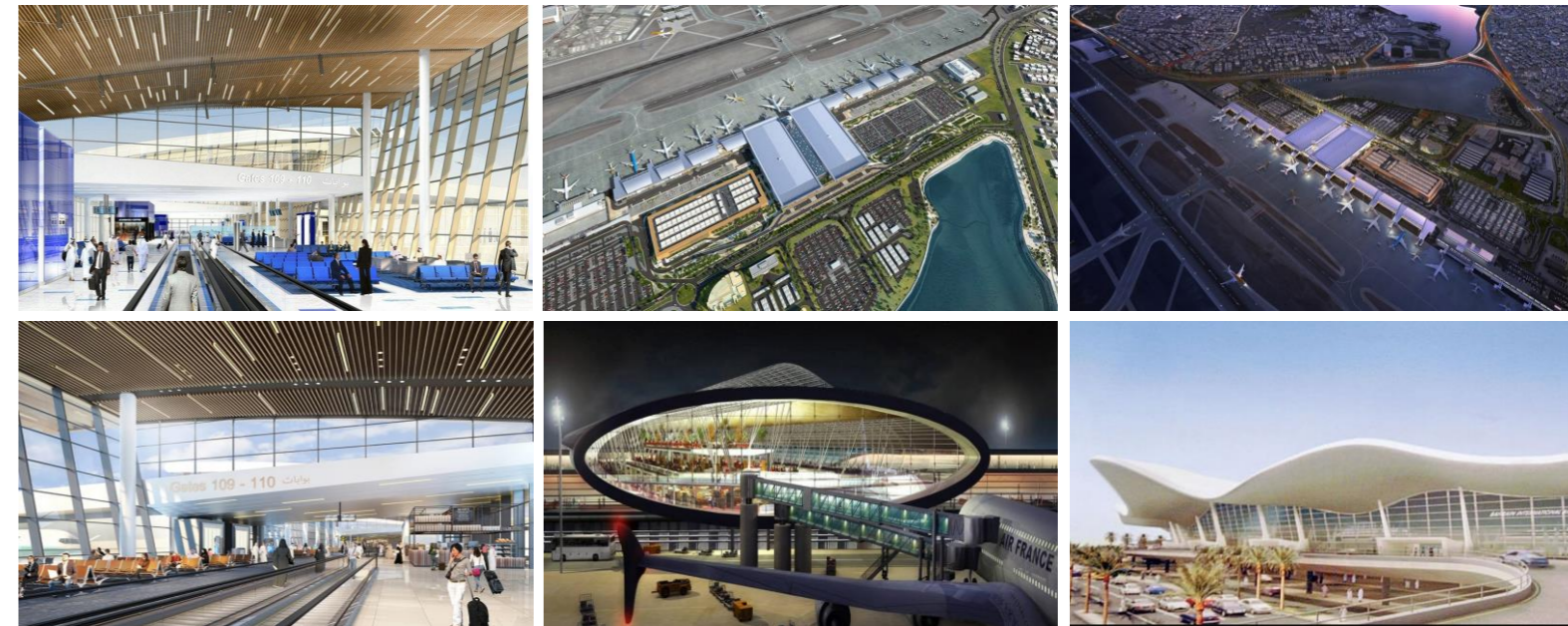
The modernization program includes a new 20-year airport masterplan, which includes the construction of a new passenger terminal, in addition to the expansion and refurbishment of the existing terminal. The \$1.1 billion expansion plan consists of a new terminal covering over 220.000m² with 12 boarding bridges, 110.000 m² carpark up to 7,000 spaces and 10.000m² central utility complex. The airside infrastructure including the construction of a new taxiway and apron system are also under scope.

Construction work on site is progressing according to schedule, with the project's first phase expected to be completed in the third quarter of 2019. All phases of the project are scheduled for completion by June 23, 2020. Upon the project's completion, it is expected that the airport's capacity will increase to accommodate 14 million passengers a year.

Electrical Scope of Works

- Main Power Distribution
- Lighting System
- Small Power System
- UPS System
- Grounding and Lightning Protection System
- Fire alarm System
- Access Control System
- Water Leak Detection System
- Master Clock System

- Structured Cable Network System
- Public Address System
- Closed Circuit TV System (CCTV)
- Master Antenna TV System (MATV)
- Disabled Alarm System
- Audio Visual System



- Design Engineering
- Installation Works
- All Material Supply
- Testing
- Start-up & Commissioning
- Training & Handover

➤ **PMC Maternity Hospital**

➤ **Akademi Hospital**



HOSPITAL PROJECTS

Moscow / Russia

PMC Maternity Hospital 2005

250 Beds, 42.000 m²

Enka A.Ş.-(Turkey)



Maternity hospital is located in Sivastopalsky region of Moscow.

10 Storey hospital has capacity to serve 250 occupants. The hospital has developed medical equipment, patient automation and monitoring systems.

Maternity hospital is the first of the large and private multi-service hospital in Russia with up-to-date modern medical technology. The medical center has 1-room wards as well as double room and triple room luxury wards and includes 8 delivery and 7 operation rooms, gynecology and women's and children polyclinics.

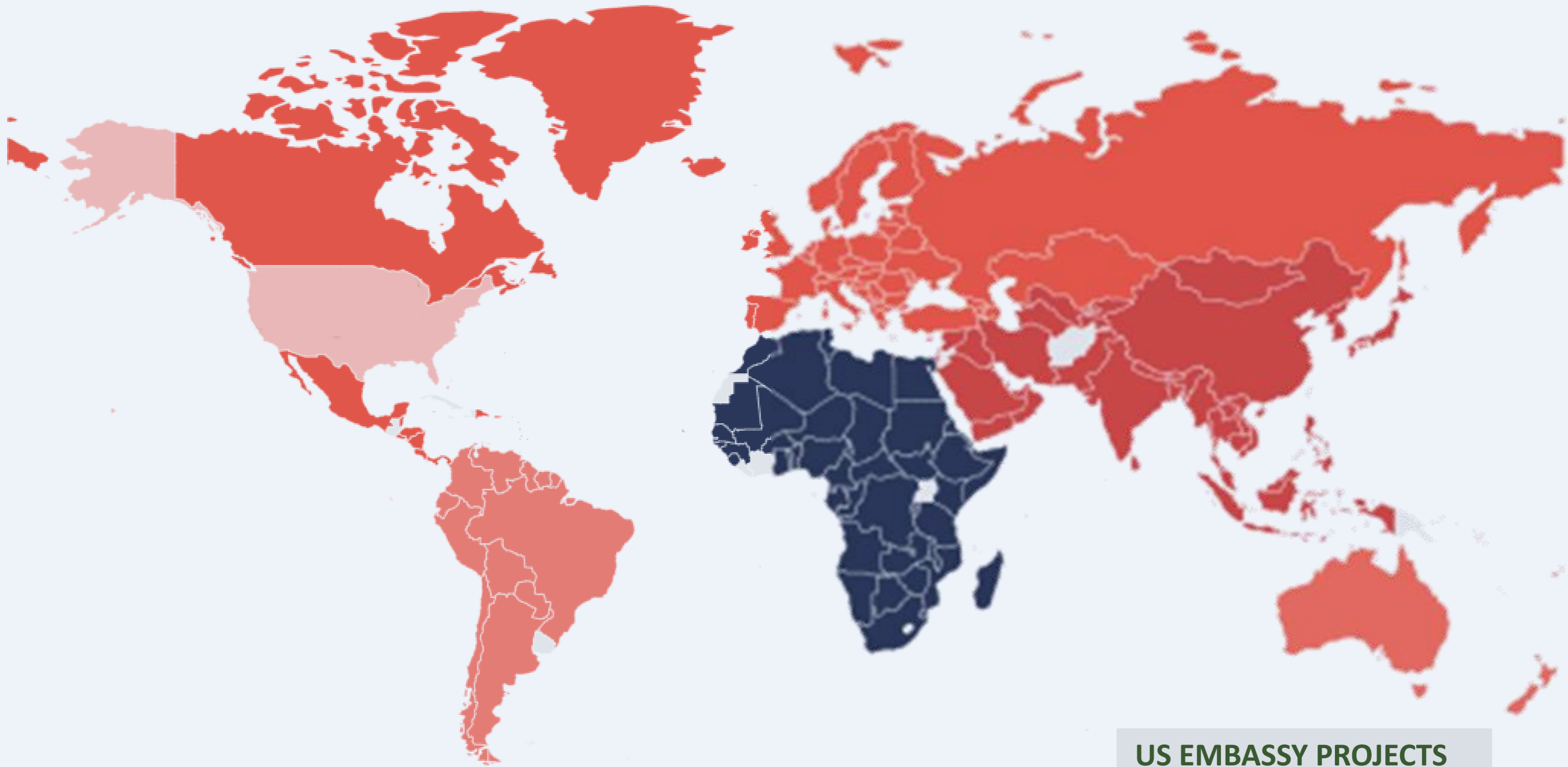
Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
IT System
Access Control System

Security System
Lighting System
Lighting Automation System
Nurse Call System
Building Automation System
Lightning Protection System
Earthing System



Design Engineering
Installation Works
Procurement Engineering
Partial Material Supply
Testing
Start-up & commissioning
Training & handover



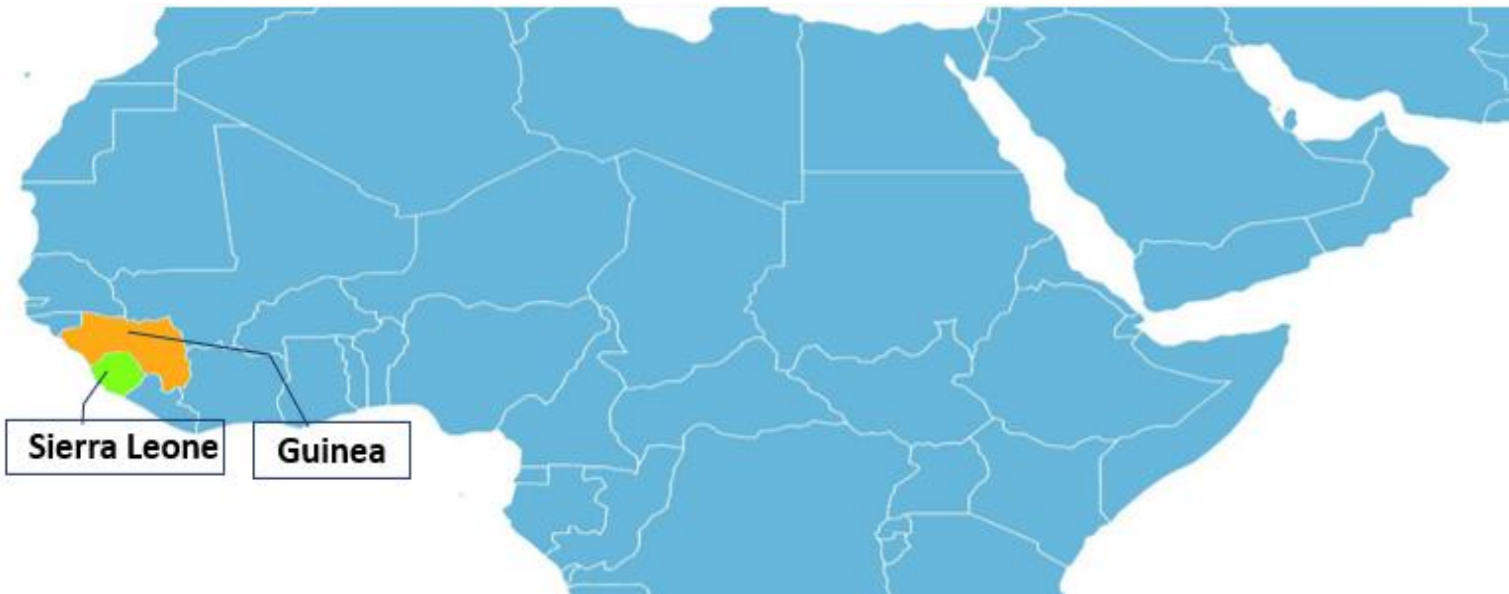
US EMBASSY PROJECTS

Sierra Leone US Embassy
Guinea US Embassy

Guinea & Sierra Leone

US Embassy Projects (Sierra Leone, Guinea) 2006

Bechtel Enka



Berksan Engineering performed the electrical Works of the Sierra Leone and Guinea US Embassy Projects, which were built in partnership with Bechtel-Enka.

Electrical Scope of Works

- Cable Containment System
- MV & LV Main Power Distribution System
- UPS System
- Lighting System
- Small Power System
- Grounding and Lightning Protection System
- Fire Alarm System



Electrical Installation works Lighting,
Grounding and Lightning Protection,
Fire Alarm,
Testing,
Commissioning

➤ **Taksim – 4. Levent Metro Istanbul**

➤ **Dubai Expo Line**



METRO PROJECTS

Istanbul / TURKEY

Istanbul Metro (Taksim-4. Levent) 2000

Alstom Enterprice A.S. / Turkey



Construction for a north-south metro line started on 19 August 1992 when the groundbreaking of the m² took place. The original route was a wholly underground 7 km (4.3 mi) line between Taksim and 4. Levent. Construction of the tunnels took place in three separate areas; Taksim, Şişli and 4. Levent.

These tunnels were connected to each other on 8 July 1994 and were completed on 30 April 1995. The line was completed in early 11 January 1999 and the first rolling stock were lowered into the tunnels. On 25 March 1999 the first test runs began and the line entered service on 16 September 2000 between Taksim and Levent. 4. Levent was opened one month later on 24 October 2000.

Electrical Scope of Works

Signaling & Tunnel Works for;

Taksim Station
Şişli-Mecidiyeköy
Osmanbey Station
Gayrettepe Station
Levent Station
4. Levent Station



Installation and Test Works for;

Signalling Equipment Installatiom
Signalling Cabling
Signalling Cable Termination
Tunnel Lighting System
Tunnel Small Power System

Dubai / UAE

Dubai Metro Expo 2020 2023

Total Under Ground Length – 2,8km,
Total Viaduct Length – 6km,
Overall Route for South Scope – 9,5km

CWJV ACCIONA & GULERMAK



Route 2020, which is an extension of Dubai Metro Red Line, will feature driverless Rolling stock. Route 2020 is a five-stage extension of the Dubai Metro Red Line up to the World Exposition 2020 (Expo 2020) exhibition site in Dubai, UAE. Estimated to cost \$2.9bn, the project represents the first major expansion of the Red Line. The Roads and Transport Authority of Dubai (RTA) is undertaking the project in 2015.

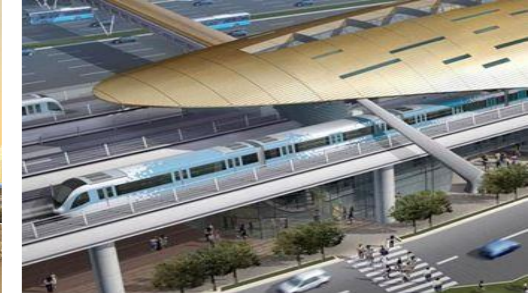
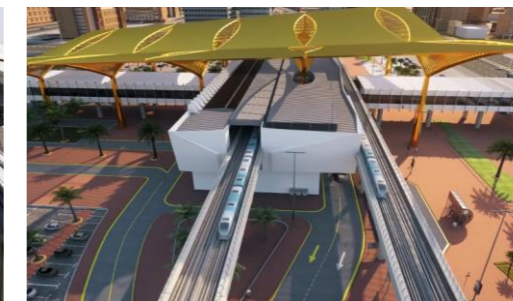
Construction on the metro rail extension route began in September 2016 and is expected to be completed by the end of 2019, while operations are planned to commence by May 2020. The new route is expected to serve approximately 270,000 commuters travelling to and from commercial and residential areas.

The Route 2020 comprises a 15km-long line, of which 11.8km will be an elevated section and the remaining 3.2km underground which will have depth ranging between 12.5m and 36m.

Electrical Scope of Works

Electrical Scope Of Works
LV Distribution
Submain Power Distribution
Standby Generators
UPS (Uninterruptible Power Supply)
CBS (Central Battery System)
Earthing and Lightning Protection
Cabling and Containment
Lighting & Small Power
Emergency Lighting

Renewable Systems
Data
Cable Containment System
MV & LV Main Power Distribution System
UPS System
Lighting System
Small Power System
Grounding and Lightning Protection System
Fire Alarm System



Mechanical Scope Of Works

Chilled Water
Ventilation
Air Conditioning
Smoke Management

Fire Protection Services

Automatic Fire Sprinkler System
Clean Agent Fire Suppression System
Foam Water Sprinkler System
Standpipe System
Fire Water Storage Tanks and Pumps
Portable Fire Extinguishers

Public Health Services

Potable Water
Hot Water
Water Supply Sub Metering
Sanitary Drainage System
Below Ground Drainage System
Storm Water Drainage
Landscape Irrigation
Utility Interface
Condensate Drainage and Recovery

Environmental Control System

Hardware requirements for the ECS Master Cabinet
Hardware requirements for the ECS Outstation
Cabinets (Major and Minor)
Hardware requirements for the Smoke Control Panel
Specific Communications Requirements
Mode Control

-
- **Kuntzevo Multifunctional Complex**
 - **Metropolis Multifunctional Complex**
 - **Tsvetnoy Multifunctional Complex**
 - **Naberaznaya Towers**
 - **MKH Business Center**
 - **Optimum Shopping Mall**
 - **Glaxo HQ Office Center - Istanbul**



**SHOPPING MALL AND
BUSINESS CENTER PROJECTS**

Moscow / Russia

Kuntsevo Plaza Multifunctional Complex 2015

245.000 m²

Enka A.Ş -(Turkey)



Kuntsevo Plaza is located at Yartsevskaya Street in Moscow.

Gross Building Area of the complex amounts to 245,000 m².

The multifunctional complex comprises 3 office blocks, shopping and entertainment areas. There are also a fitness center included a swimming pool, hypermarket, food court, cinema, many restaurants, bars and in addition 5 level closed car park area.

Approximately 200 stores are placed at the shopping center.

Electrical Scope of Works

- Power Systems
- Fire Alarm System
- Public Announcement System
- CCTV System
- IT System
- Access Control System
- Security System

- Lighting System
- Lighting Automation System
- Building Automation System
- Interactive TV System
- Lightning Protection System
- Earthing System



- Design Engineering
- Installation Works
- Procurement Engineering
- Partial Material Supply
- Testing
- Start-up & Commissioning
- Training & Handover

Moscow / Russia

Metropolis Multifunctional Complex 2009

350.000 m²

Enka A.Ş.-(Turkey)



Metropolis is one of the biggest multifunctional complex as offices and retails located on the Leningradskoye Prospect at the center of Moscow with its 350.000 m² closed area.

There are three office buildings, one shopping center and one multi-floor closed car park in the complex.

Shopping mall includes hyper market, entertainment area, food court, cinema and shops.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
IT System
Access Control System

Security System
Lighting System
Lighting Automation System
Room Management System
Building Automation System
Lightning Protection System
Earthing System



Design Engineering
Installation Works
Procurement Engineering
Partial Material Supply
Testing
Start-up & Commissioning
Training & Handover

Moscow / Russia

Legend of Tsvetnoy Multifunctional Complex 2011

120.000 m²

Enka A.Ş.-(Turkey)



The Office and Residence Plaza, “Legend of Tsvetnoy”, is located on Tsvetnoy Boulevard, in a very historical square “Trubnaya” at the city center of Moscow.

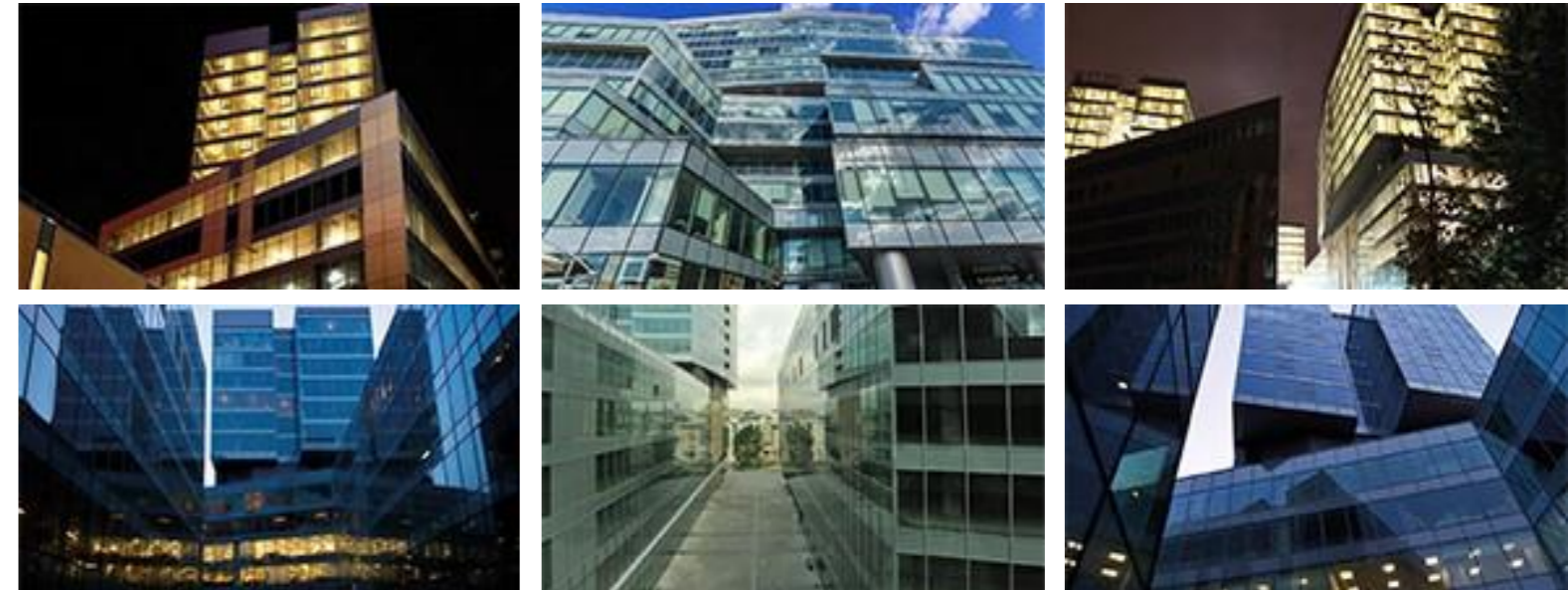
The 16 floor complex with 120.000 m² total closed area consists of a three floors underground car park, a seven floors business center and three distinct eight and seven floors residential towers rising above the business center.

Also many retail areas, restaurants and bars are placed at the ground level.

Electrical Scope of Works

- Power Systems
- Fire Alarm System
- Public Announcement System
- CCTV System
- IT System
- Access Control System
- Security System

- Lighting System
- Lighting Automation System
- Building Automation System
- Interactive TV System
- Lightning Protection System
- Earthing System



- Design Engineering
- Installation Works
- Procurement Engineering
- Partial Material Supply
- Testing
- Start-up & Commissioning
- Training & Handover

Moscow / Russia

Moscow City Nabereznaya Towers

62 Floors, 220.000 m²

Enka A.Ş.-(Turkey)



Nabereznaya Towers are Class A office buildings in Moscow City.

There are three towers of 17, 27 and 62 floors of 266m high.

There is a panoramic view across the Moscow River of the buildings.

There are also restaurants, cafes, shops and car parks in the complex.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
IT System
Access Control System

Security System
Lighting System
Lighting Automation System
Building Automation System
Lightning Protection System
Earthing System



Design Engineering
Installation Works
Procurement Engineering
Partial Material Supply
Testing
Start-up & Commissioning
Training & Handover

Moscow / Russia

MKH-5 Business Center 2009

20.000 m²

Enka A.Ş.-(Turkey)



MKH-5 business center is at the center of Moscow, 2km far from Red Square, near Moscow River.

11 floors business center has office and retail areas, meeting rooms, a huge ballroom.

Office levels offer very wide angle Moscow city center panorama with a very beautiful Moscow River view.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
IT System
Access Control System

Security System
Lighting System
Lighting Automation System
Building Automation System
Lightning Protection System
Earthing System



Design Engineering
Installation Works
Procurement Engineering
All Material Supply
Testing
Start-up & Commissioning
Training & Handover

Istanbul / Turkey

Optimum Shopping Mall 2009

145.000 m²

Renaissance Construction. -(Turkey)



Optimum outlet shopping and entertainment center is located at the Anatolian side of Istanbul.

The mall is aimed to serve 15 million visitors annually.

Besides Turkish brands which are famous leading and worldwide in their sectors, there is also entertainment center, ice rink and a food court which has a panoramic view are located in the complex.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
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Earthing System



Design Engineering
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-
- **Hyatt Regency Hotel / Makkah**
 - **Corinthia Hotel / San Petersburg**
 - **Hyatt Regency Hotel / Dushanbe**
 - **Swiss Hotel / Moscow**
 - **Intercontinental Hotel / Taskent**
 - **SBG Airport Hotel / Istanbul**



HOTEL PROJECTS

Makkah / Saudi Arabia

Jabal Omar Development Project Hyatt Regency Hotel 2015

Nesma & Partners Contracting LLC



Makkah Hyatt Regency Hotel is located at the heart of the holy city of Makkah as a part of Jabal Omar Development complex. The hotel is just a one-minute walk to Al-Masjid Al-Haram.

22 storey 2 blocks hotel has 656 rooms and 26 suites, 4 restaurants, and car parking for 175 cars with its 235.000m² total closed area.

Electrical Scope of Works

Design and Engineering, Material Supply, Installation, Testing and Commissioning for ;

Main Power Distribution
Lighting System
Small Power System
UPS System
Grounding and Lightning Protection System
Fire alarm System
Access Control System

Water Leak Detection System
Structured Network Cabling System
Public Address System
Closed Circuit TV System (CCTV)
Interactive TV System
Disabled System
Audio Visual System



Mechanical Scope of Works

Design and Engineering, Material Supply, Installation, Testing and Commissioning for ;

HVAC System
Sanitary System
Chilled Water System
Domestic Water System
Fire Protection System
Plumbing System
Building Management System

St Petersburg / Russia

Corinthia Nevskij Palace Hotel 2009

282 Rooms, 36.000 m²

Enka A.Ş.-(Turkey)



The hotel is located on Nevskij Prospekt, the oldest and historical street of St Petersburg.

9 storey, 5 star hotel with its 36.000m² closed area has 282 very luxury rooms and suites.

The hotel hosts three bars, three restaurants, meeting and conference rooms, a banqueting facility, a health club with spa and a dedicated business lounge for its executive guests.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
IT System
Access Control System
Security System

Lighting System
Lighting Automation System
Room Management System
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Design Engineering
Installation Works
Procurement Engineering
Partial Material Supply
Testing
Start-up & Commissioning
Training & Handover

Dushanbe / Tajikistan

Hyatt Regency Hotel 2007

221 Rooms, 38.000 m²

Enka A.Ş.-(Turkey)



The hotel is located in the Komsomolsky Park on Ismaili Somani Avenue in Tajikistan's capital city of Dushanbe, providing a unique view of man-made Komsomolsky Lake.

Total closed area 38.000 m²

12 Storey, 5 star hotel has 221 very luxury rooms. In addition, Hyatt Regency Dushanbe is the first 5 star hotel in Dushanbe, fulfilling latest requirements of business and leisure alike.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
IT System
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Security System

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Room Management System
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Design Engineering
Installation Works
Procurement Engineering
Partial Material Supply
Testing
Start-up & Commissioning
Training & Handover

Moscow / Russia

Swissotel & Riverside Tower 2005

234 Rooms, 37.500 m²

Enka A.Ş.-(Turkey)



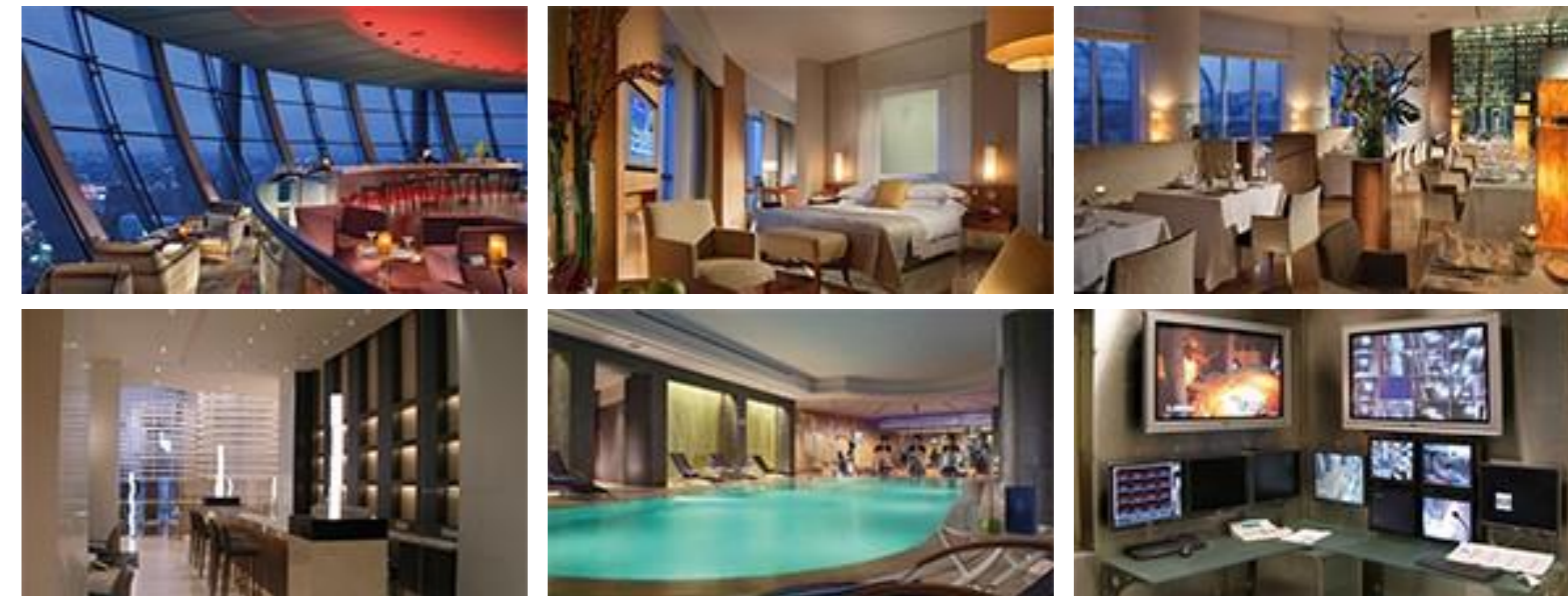
Swissotel & Riverside Tower is constructed in Paveletskaya, Moscow, only 2km far from Red Square. The Hotel has 400 bed capacity in 234 very luxury and technological rooms.

The 36 floors high-rise takes fully advantage of its height to afford its spacious rooms and suites a clear view of Moscow with wall to wall, floor to ceiling windows. The roof bar, called city space, offers a breathtaking 360 degree panorama. In addition to this, the hotel has three other bars, two restaurants, meeting and conference rooms, a full floor banqueting facility, a health club with SPA, swimming pool and a dedicated business lounge for its executive guests.

Electrical Scope of Works

Power Systems, MV/LV Switchgears
Transformer Center
Fire Alarm System
Public Announcement System
CCTV System
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Uzbekistan / Tashkent

Intercontinental Hotel and Trilliant Business Center 2023

250 Rooms, 86.000 m²

Uztur Investment



Trilliant is mixed-use development project, where people can work, enjoy leisure and accommodate.

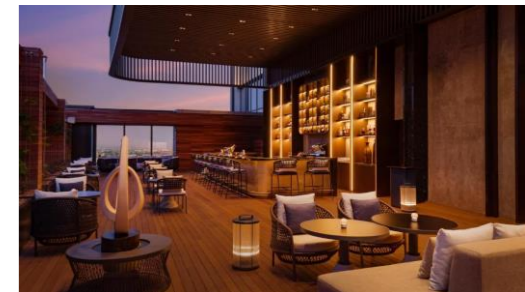
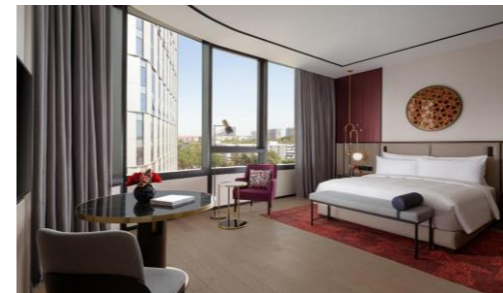
Situated right at the heart of the busiest district of Tashkent, Trilliant will consist of A Level offices, 5 Star Hotel, Luxury Retail Area, Restaurants and Landscaped Park.

Being in walking distance to many Government Buildings, Post Office, Banks and other city attractions, Trilliant will facilitate doing business in Tashkent.

Electrical Scope of Works

Design Engineering, Material supply, Installation and testing works of;

- Power Systems
- Lighting System
- Lighting Automation System
- Fire Alarm System
- Audio Visual System



- Public Announcement System
- CCTV System
- IT System
- Security System
- Building Automation System
- Room Management System
- Lighting Control System
- ICT System
- Heat Tracing System
- Earthing System

THANK YOU

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