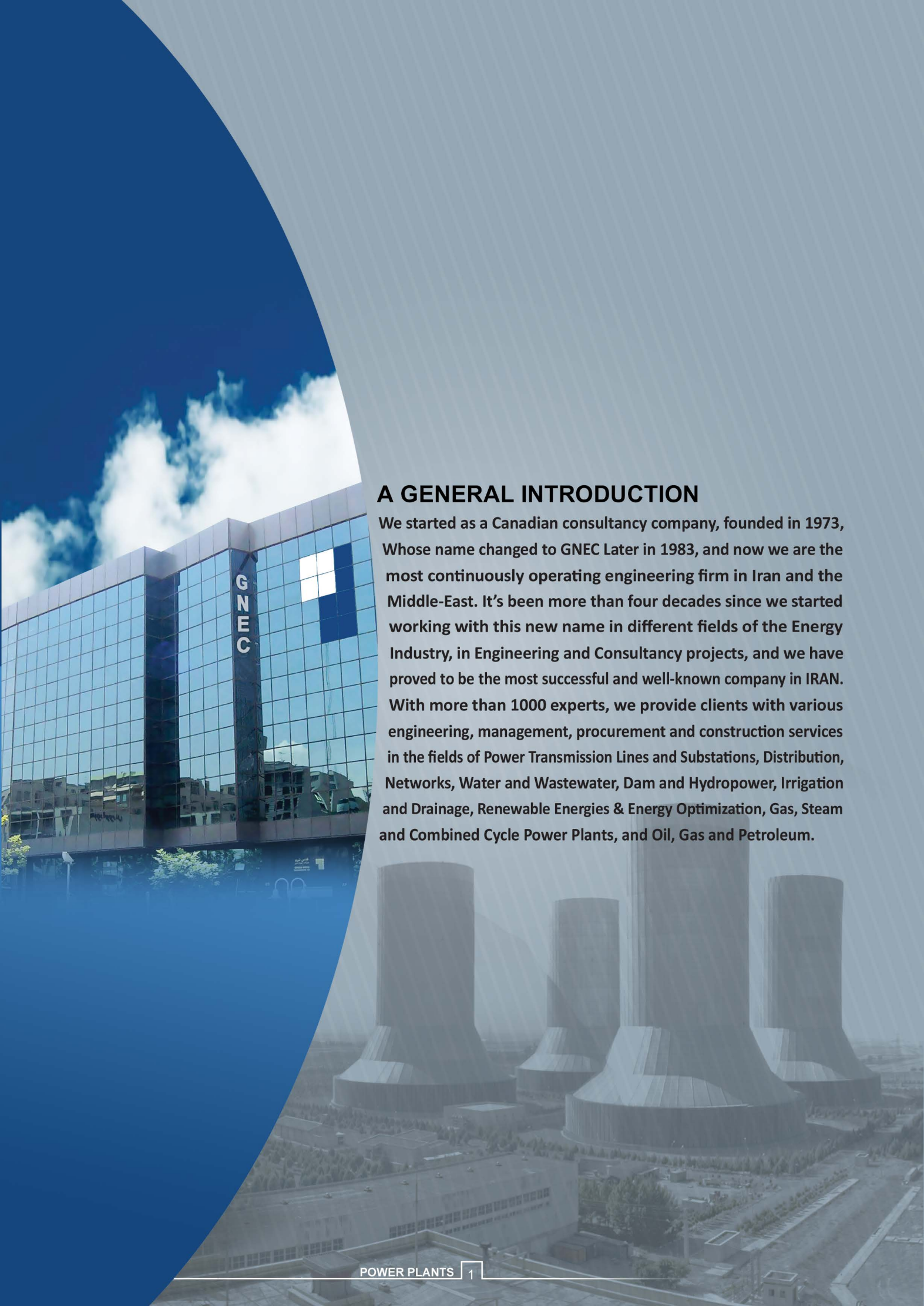




**Power Plants**



## A GENERAL INTRODUCTION

We started as a Canadian consultancy company, founded in 1973, Whose name changed to GNEC Later in 1983, and now we are the most continuously operating engineering firm in Iran and the Middle-East. It's been more than four decades since we started working with this new name in different fields of the Energy Industry, in Engineering and Consultancy projects, and we have proved to be the most successful and well-known company in IRAN. With more than 1000 experts, we provide clients with various engineering, management, procurement and construction services in the fields of Power Transmission Lines and Substations, Distribution, Networks, Water and Wastewater, Dam and Hydropower, Irrigation and Drainage, Renewable Energies & Energy Optimization, Gas, Steam and Combined Cycle Power Plants, and Oil, Gas and Petroleum.



## OUR EXPERIENCES

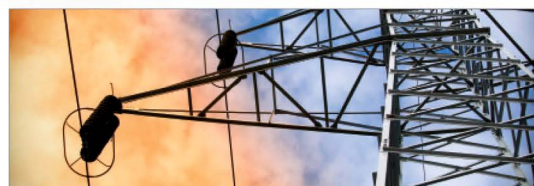
We have already provided services for:

- More than 27,000 Km of power transmission lines and many distribution networks from 33kV to 400kV.
- More than 820 substations in all voltage levels from 33kV to 400kV.
- More than 60,000 MW of power plants.
- More than 310 projects in dams, water transmission lines, irrigation, drainage, hydropower plants and about 500 km of water & wastewater network.
- More than 3000 km of gas transmission lines and several fuel storage tanks.
- More than 100 renewable energy plants and energy management projects with a wide variety of services.



## OUR SERVICES

- Design and engineering services
- Project review, project management, construction control and supervision
- Conceptual, preliminary and detailed design
- Consultancy services and economic studies
- Management of contract (MC)
- Feasibility studies, EIA, ESIA, HSE, and RAP
- Surveying and geotechnical investigations and engineering
- Engineering, procurement and construction (EPC) services
- Electricity grid and access studies and reliability improvement



## BUSINESS EXPANSION

Our area of activities has always been expanding by adding new businesses fields such as Hydro structures in 1994, Oil & Gas in 2002, renewable energies in 2005 and continue to grow by entering into exporting engineering services, and participating in EPC, BOO and BOT projects.

Business Growth During the Years

2011	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Combined and Gas Power Plant, Power Plant Industries, Oil and Gas, MC projects, Renewable Energies, Engineering Services Export, EPC, <b>BOO and BOT Projects</b>	
2008	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Combined and Gas Power Plant, Power Plant Industries, Oil and Gas, MC projects, Renewable Energies, Engineering Services Export, <b>EPC Projects</b>	
2007	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Combined and Gas Power Plant, Power Plant Industries, Oil and Gas, MC projects, Renewable Energies, <b>Engineering Services Export</b>	
2005	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Combined and Gas Power Plant, Power Plant Industries, Oil and Gas, MC projects, <b>Renewable Energies</b>	
2002	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Combined and Gas Power Plant, Power Plant Industries, <b>Oil and Gas and MC projects</b>	
2000	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Combined and Gas Power Plant, <b>Power Plant Industries</b>	
1999	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, Gas and <b>Combined Cycle Power Plant</b>	
1997	Steam power plants, Transmission lines and Substations, Hydro Structures, Electricity Distribution, <b>Gas Power Plant</b>	
1995	Steam power plants, Transmission lines and Substations, Hydro Structures, <b>Electricity Distribution</b>	
1993	Steam power plants, Transmission and Substationss, <b>Hydro Structures</b>	
1975	Steam power plants, <b>Transmission Lines and Substations</b>	
1973	<b>Steam power plants</b>	



# Certificates

ISO 9001



ISO 14001



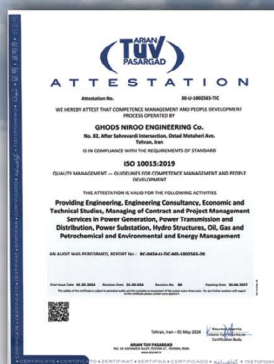
ISO 45001



HSE-MS



ISO 10015



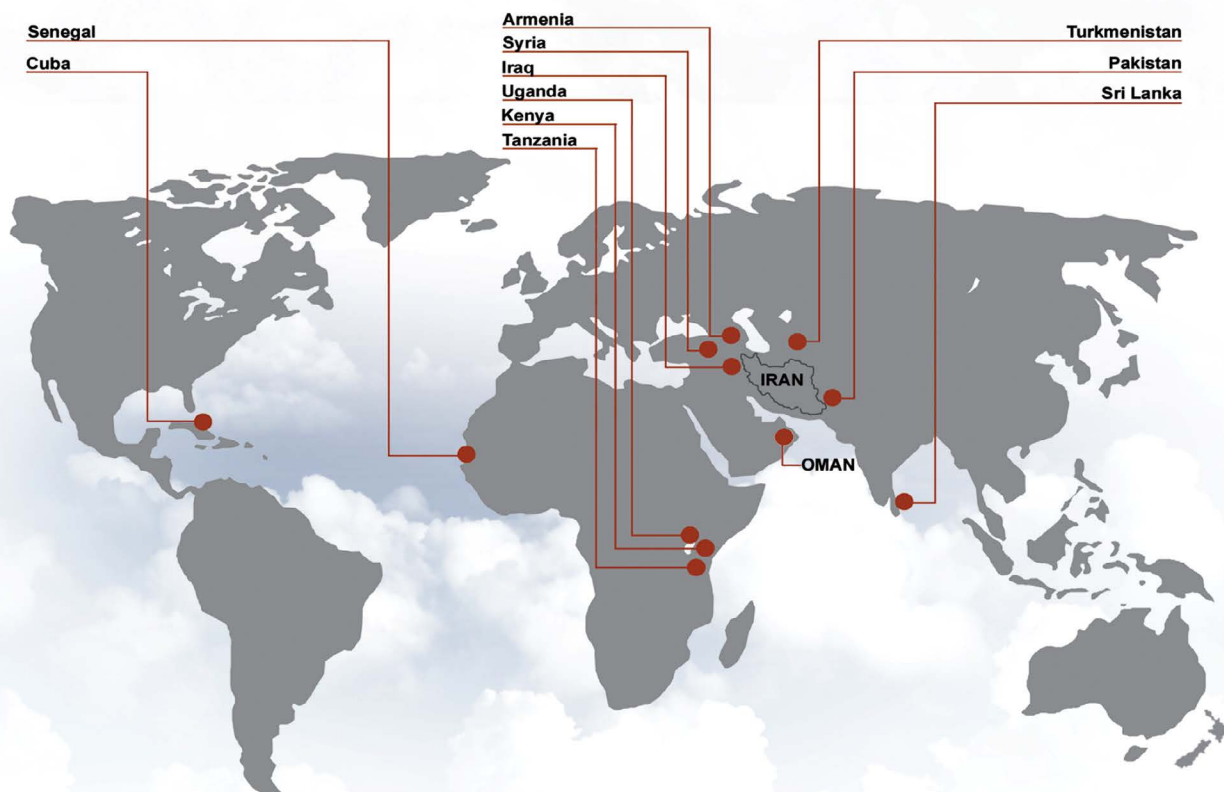
EFQM



ISO 10006



## GNEC Area of Activity





# POWER PLANTS

## Overview

GNEC is a leading engineering company in the field of power generation engineering with more than 60% of market share in Iran.

Power plant projects includes steam turbine, gas turbine and combined cycle power plants with units ranging from 25 MW up to 325 MW.

Until now, more than 50000 MW power plants engineered in GNEC have been connected to the national grid, another 6000 MW are under supervision and 5000 MW are in engineering and design phase.

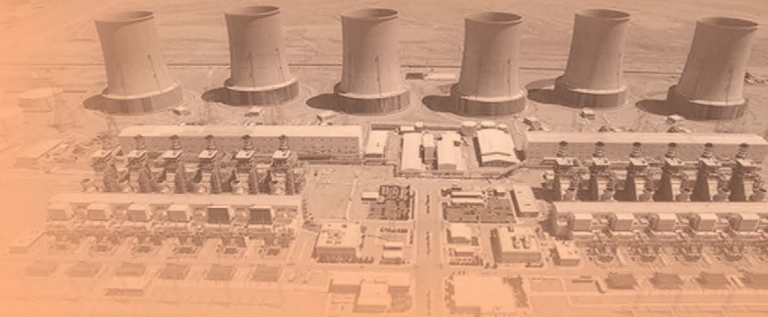
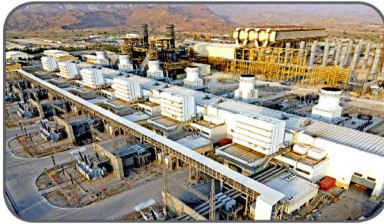




## FIELD OF ACTIVITIES

Economical and Technical Studies ,as well as design, supervision in construction of thermal power plants, including:

- Steam Power Plants of any type
- Gas Turbine Power Plants
- Combined Cycle Power Plants



## SERVICES

- Proposing the type of power plant according to Client needs
- Preparation of power plant's general Technical Documents and specification
- Feasibility studies
- Financial and Economic Feasibility Studies
- Site survey and site selection
- Environmental studies
- Geophysical and Geotechnical surveys
- Site Topography
- Preparing Conceptual Design
- Preparing Basic Design
- Preparation of Tender Documents
- Assisting the Client in Tendering Stage to select the contractor
- Preparing Detail Design
- Management Contracting for EPC Contracts
- Design Review
- Construction Supervision
- Project Control and Preparation of Master Time Schedule
- Supervision of Factory Tests and Site Acceptance Tests of Equipment and Systems





## Highlighted Projects

### 2x120 MW Gas Turbine Power Plant in Rey

Engineering and Consultancy Services as well as Site Supervision for Construction of 2 x 120 MW Gas Turbine Power Plant in Rey/Iran.



### 3x160 MW Steam Portion of Combined Cycle Power Plant in Assaluyeh (B.O.O.)

Engineering and Consultancy Services as well as Site Supervision for Construction of 3 x 160 MW Combined Cycle Power Plant in Assaluyeh (steam portion).

Construction was performed on EPC Contract.



### 500 MW Combined Cycle Power Plant in Zanjan

Engineering and Consultancy Services as well as Site Supervision for Construction of a Combined Cycle Power Plant with a Total Capacity of 500 MW For North & South Energy Company in Zanjan/Iran.



### 2x325 MW Coal Power Plant in Tabas

Engineering and Consultancy Services as well as Site Supervision for Construction of 2x325 MW Coal Power Plant in Tabas/Iran.

Construction was performed In (B.O.P) Portion.

### 225 MW Combined Cycle Power Plant in Ilam (NGL3100)

Engineering and Consultancy Services as well as Site Supervision for Construction of (NGL3100) 225 MW Combined Cycle Power Plant in Ilam/Iran.



### 2x25 MW Mobile Power Plants

Engineering and Consultancy Services as well as Site Supervision for Construction of 2x25 MW Mobile Gas Turbine Power Plant.

Construction was performed on EPC Contract.

### 3000 MW Gas turbine power plants

Site selection, Engineering and Consultancy Services as well as Site Supervision for Construction of 5 power plants with 20 gas turbines and a total capacity of 3000 MW.

Construction was performed on EPC Contract.





### **Design Of Balance of Plant (B.O.P) of Kerman Gas Turbine Power Plant**

Conceptual, Basic and Detail Design Services for Balance of Plant (B.O.P) in Kerman Gas Turbine Power Plant including 8x160 MW gas turbines.



### **3x160 MW Steam Portion Power Plants in Assaloyeh (P.O.G.C)**

Engineering and Consultancy Services as well as Site Supervision for Construction of a Combined Cycle Power Plant (Steam portion) with 3x160 MW Steam turbine for Pars Oil and Gas Company.

Construction was performed on EPC Contract.



### **2x320 MW Steam Power Plant in Shazand**

Engineering and Consultancy Services as well as Site Supervision for Construction of Shazand/Arak 2x320 MW Steam Power Plant in Shazand/Iran.

Construction was performed on EPC Contract.



### **360 MW Combined Cycle Power Plant in Dehloran**

Engineering and Consultancy Services as well as Site Supervision for Construction of Dehloran Petrochemical 360 MW Combined Cycle Power Plant in Dehloran/Iran.

### **2x307 MW F class Gas turbine power plant in Bandar Abbas**

Engineering and Consultancy Services as well as Site Supervision for Construction of Hengam Power Plant with 2x307 MW gas turbine (F class).

Construction was performed on EPC Contract.



### **2x307 MW F class Gas turbine power plant in Sahand**

Engineering and Consultancy Services as well as Site Supervision for Construction of Sahand 2x307 MW Gas Turbine Power Plant in Bonab/Iran.

Construction was performed on EPC Contract.



# References

Finish Date	Assignment Name	Capacity	Name of Client & Country of Assignment	Role on the Assignment
Power Plants Projects				
Ongoing	Jahrom P.P.	6*160 MW	TPPH	Design Review and Supervision
Ongoing	Assaluyeh Steam P.P.	3*160 MW	MAPNA	Design Review and Supervision
Ongoing	Arya Zanjan C.C.P.P.	500 MW	North & South Energy	Design Review and Supervision
Ongoing	Zahedan C.C.P.P.	500 MW	TPPH	Design Review and Supervision
Ongoing	Tabas P.P. (BOP2)		TPPH	Design Review and Supervision
Ongoing	Yazd B.O.O. C.C. P.P.	500 MW	Energy Gostar- e-Jam CO.	Design Review and Supervision
Ongoing	West Karun C.C. P.P.	500 MW	MAPNA	Design Review and Supervision
Ongoing	Saba Dehloran C.C.P.P. (NO.1)	225 MW	SABA DEHLORAN CO.	Design Review and Supervision +MC
Ongoing	Saba Dehloran C.C.P.P. (NO.2)	325 MW	SABA DEHLORAN CO.	Design Review and Supervision +MC
Ongoing	Sirjan C.C.P.P.(BLOCK 2)	500 MW	GOHAR ENERGY SIRJAN	Design Review and Supervision
Ongoing	Jask GAS P.P.	1*42 MW	TPPH	Design Review and Supervision
Ongoing	Zahedan GAS P.P.	3*42 MW	TPPH	Design Review and Supervision
Ongoing	Rey GAS P.P.	2*42 MW	TPPH	Design Review and Supervision
Ongoing	SHoush GAS P.P.	1*42 MW	TPPH	Design Review and Supervision
Ongoing	KHatam GAS P.P.	1*42 MW	TPPH	Design Review and Supervision
Ongoing	Rey GAS P.P..	2*120 MW	TABAN ENERGY PASARGAD	Design Review and Supervision
Ongoing	Hengam C.C.P.P. gas portion (F CLASS)	2*307 MW	TPPH	Design Review and Supervision
Ongoing	Dokuhe C.C.P.P. gas portion (F CLASS)	1*307 MW	TPPH	Design Review and Supervision
Ongoing	Sahand C.C.P.P. gas portion (F CLASS)	1*307 MW	TPPH	Design Review and Supervision
2024	South Pars Steam P.P.	3*160 MW	P.O.G.C.	Design Review and Supervision
2024	Second 3000MW P.P. (7 New P.P.2+ Ext)	3000 MW	TPPH	Design Review and Supervision
2024	Kermanshah C.C. P.P.-gas portion	4*160 MW	TPPH	Design Review and Supervision
2024	Zanjan C.C. P.P. -gas portion	4*160 MW	TPPH	Design Review and Supervision
2024	Semnan C.C. P.P.-gas portion	2*160 MW	TPPH	Design Review and Supervision
2024	Shahrud C.C. P.P.-gas portion	2*160 MW	TPPH	Design Review and Supervision
2022	Behbahan C.C.P.P.	500 MW	MAPNA	Design Review and Supervision
2022	Caspian C.C.P.P.	500 MW	MAHTAB GOSTAR CO.	Design
2021	Samangan Sirjan C.C.P.P.	500 MW	Kermanian Co.	Design Review and Supervision
2021	Kashan C.C.P.P.(Steam Portion)	1*160 MW	SABA NOVIN CO.	Design Review and Supervision
2020	Sirjan C.C.P.P. (BLOCK 1)	500 MW	Gohar energy sirjan	Design Review and Supervision



Finish Date	Assignment Name	Capacity	Name of Client & Country of Assignment	Role on the Assignment
2020	Design services engineering and site supervision of Dibis ,Iraq	2*160 MW	SUNIR-Iraq	Design Review and Supervision
2019	Chabahar steam portion technical and financial studies and bankable report preparation		Saba southeast power generation Co.	Energy and economical study
2019	Khoramshahr steam portion technical and financial studies and bankable report preparation		Saba southeast power generation Co.	Energy and economical study
2018	Orumieh gas portion-Extension	2*160 MW	TPPH	Design Review and Supervision
2017	Ardabil C.C. P.P. -gas portion	2*160 MW	TPPH	Design Review and Supervision
2015	Refurbishment and operation supervision zargan P.P.	2*145 MW	Saba energy and power industries	Consultancy and Supervision
2014	Fars BOT gas turbine P.P.	6*160 MW	Fars gas power plant Co.-FZE	Design Review and Supervision
2014	Ardabil steam portion technical and financial studies and bankable report		Sabalan bargh omid CO.	Technical and economical study
2013	First 3000 MW gas turbine P.P.	20*160 MW	TPPH	Design Review and Supervision
2013	South pars gas turbine P.P.	6*160 MW	POGC	Design Review and Supervision
2010	Kashan gas turbine P.P.(Gas Porttion)	2*160 MW	TPPH	Design Review and Supervision
2010	Design of KHoram Abbad P.P.	4*162 MW	MAPNA	Design
2009	Ali Abaad –E-Katul BOO gas turbine P.P.	6*162 MW	Azarakhsh Co.	Design Review and Supervision
2008	30 Units gas turbine P.P.	30*160 MW	TPPH	Design Review and Supervision
2007	Sanandaj gas portion	4*160 MW	TPPH	Design Review and Supervision
2007	Shirvan C.C. P.P.	6*160 MW	TPPH	Design Review
2007	Assaluyeh gas turbine P.P.	6*160 MW	MAPNA	Design Review and Supervision
2006	Shazand thermal P.P.	4*325 MW	TPPH	Design Review and Supervision
2005	Kazerun C.C. P.P. (Gas Porttion)	6*160 MW	TPPH	Design Review and Supervision
2005	Sahand Thermal P.P.	2*320 MW	TPPH	Design Review and Supervision
2005	Kerman gas portion P.P.	8*160 MW	TPPH	Design of B.O.P
2002	Gharb thermal P.P.	4*250 MW	TPPH	Design Review and Supervision
2001	Ramin 5,6 thermal P.P.	2*315 MW	TPPH	Design Review and Supervision
2001	Design of B.O.P. in Kerman GTPP	8*160 MW	MAPNA	Design
1998	Bandar Abbas thermal P.P.	4*320 MW	MAPNA	Design Review and Supervision
1998	Gilan C.C.P.P.	6*150 MW 3*160 MW	TPPH	Design Review and Supervision
1998	Isfahan thermal P.P.	1*320 MW	TPPH	Design Review and Supervision
1997	Ramin 3,4 thermal P.P.	2*315 MW	TPPH	Design Review and Supervision
1997	Bisoton thermal P.P.	2*320MW	TPPH	Design Review and Supervision
1994	Shahid Rajaei thermal P.P.	4*250 MW	TPPH	Design Review and Supervision
1989	Isfahan thermal P.P.	1*320 MW	TPPH	Design Review and Supervision



**We Promote Reliability, Quality, Cooperation and Competency**

