PROJECTS REFERENCE LIST

valveIT®
Owner: Government of Kazakhstan
Total project value: $14.500.000.000

EPC:

The Karachaganak gas condensate field, situated in the north-west region of Kazakhstan, covers an area of more than 280 km². Karachaganak Petroleum Operating BV (KPO) was formed to facilitate the field's development. The company is owned by five partners. Kazakhstan's KazMunaiGas (KMG) acquired a 10% interest in the project in June 2012. BG Group and Eni each have 29.25% interest in KPO. Chevron has 18% and Lukoil holds the remaining 13.5%.

The Plant is a Gas Treatment Plant with a Gas and Condensate Production of average 200,000 barrels/day and 700 millions cf/day. It is mainly composed by:

- Oil and Gas Treatment Plant
- Gas Reinjection Plant
- Pipelines, Flowlines and Trunklines Network System
The power station was built on an area of 23 acres on the Kafr Shokr-Banha road in Qaliubeya governorate. It is considered part of the current five-year plans for projects in the sector from 2012 to 2017, to provide environmentally friendly electrical energy for all sectors.

The cost of the station amounted to $500m, with funding from the Abu Dhabi Fund for Development (ADFD), the Arab Fund for Economic and Social Development (AFESD), the Islamic Development Bank (ISDB), the Kuwait Fund for Arab Economic Development (KFAED), the OPEC Fund for International Development (OFID) and the Saudi Fund for Development (SFD). Additionally, the Middle Delta for Electricity Production Company (MDEPC) is the local contributor in funding.

The station operates through the combined cycle system, which allows the production of one-third of the energy without using extra fuel.

The station was implemented according to Egyptian designs, with packages for multiple contracts, 16 in total, to maximise the participation of locally manufactured gears and equipments. In addition, the workers and employees in the project were trained and qualified.

The Ain Sokhna power station, which cost $1.7bn and has a capacity of 1300 MW, is part of the main electricity station in the region.
Majnoon oil field is a super-giant oil field located 60 km (37 mi) from Basra, Basra Governorate in southern Iraq. Majnoon is one of the richest oil fields in the world with an estimated 38 billion barrels of oil in place. The field was named Majnoon which means crazy in Arabic in reference to excessive amount of oil in a dense area. The operator Shell holds 45% stake in all licences, while Petronas and Iraqi Ministry of Oil hold 30% and 25% of interest. According to company officials, the project will require tens of billions of dollars over the 20-year period. According to the deal, the consortium will increase production to a peak 1.8 million barrels (290,000 m$^3$) of oil per day within seven-year period. Majnoon was the first Iraqi field out of 10 major ones offered to international companies for development. The contract with Shell and Petronas includes drilling over 40 production wells, construction of three gas separation stations and two crude oil processing refineries with overall capacity of 100,000 barrels per day (16,000 m$^3$/d). The official start date was March 1, 2010. In the Phase I of the project, the consortium intends to increase the production from 45,000 to 175,000 barrels per day (27,800 m$^3$/d) within two-year period.
In December 2013, the Government of the Sultanate of Oman and BP signed a gas sales agreement and an amended production sharing agreement for the development of the Khazzan Project in the south of Block 61. The agreements were ratified in February 2014, in a Royal Decree issued by His Majesty Sultan Qaboos Bin Said.

Block 61 is operated by BP Oman (60%) in partnership with Oman Oil Company Exploration and Production (40%). The full field development of the Khazzan Project will involve a drilling programme of around 300 wells over 15 years to deliver plateau production of one billion cubic feet (or 28.3 million cubic metres) of gas per day. This volume is equivalent to an increase of around a third of Oman’s total daily gas supply. Construction work on Khazzan has commenced and first gas is expected in late 2017. This project is BP’s largest, with 100% BP interest. Key environmental features of the project included water abstraction and treatment, wastewater (including produced water), atmospheric emissions, solid waste disposal, drilling cuttings and mud disposal, oil and chemical spills, Naturally Occurring Radioactive Material (NORM), and fracking.
Elengy
Etpl Fast Track LNG - Pakistan

Total project value: $150.000.000
Owner: Engro

EPC:

The project involves construction and operation of a fast track LNG regasification facility located at Port Qasim, Karachi. Project components include construction of a jetty and associated facilities, a 24-km high pressure gas pipeline, and lease of a Floating Storage and Regasification Unit (FSRU); the project location is alongside the existing Engro-Vopak LPG terminal.

The project plays a part in satisfying the growing domestic demand for hydrocarbons, and it helps reducing the unmet energy demand in Pakistan. It’s anticipated that the project contributes to national energy security priorities and strengthening of the country’s natural gas infrastructure. Therefore the project further enhances the country’s energy security by diversifying the energy base in an environmentally sustainable manner through import of a cleaner fuel.
Cairo Electricity Production Company  
Giza North Power Plant - Egypt

Total project value: $1.656.000.000  
Owner: Cairo Electricity Production Company

EPC:

Giza North Power Plant project is part of a broader program which aims to help Egypt meet its growing demand for electricity and develop reliable, efficient, and sustainable sources of power. More specifically, it aims to improve the security and efficiency of the electricity supply within Egypt by adding new generation capacity based on efficient thermal power generation technology. The project comprises the construction of a gas-fired combined-cycle gas turbine (CCGT) power plant at Giza North near Cairo that will use the most efficient thermal power generation technology. In June 2010, the World Bank's Board of Executive Directors approved a $600 million loan for the construction of a 1500 MW combined-cycle turbine power plant which meets the World Bank’s emission and discharge requirements. On February 14, 2012, additional financing of $240 million was approved to fund the construction of an extra 750-MW CCGT unit at the Giza North power plant, and the associated gas pipeline and two 500 kV transmission lines, each with a length of approximately 25 KMs. The additional unit brings the total capacity of the plant to 2250 MW, sufficient to serve more than five million households. The project is located in the North of Giza, on El-Beheiry canal in El-Kata village. The site is approximately 30 kilometers northwest of Cairo City.
Total project value: $1.300.000.000
Owner: Sonatrach

EPC:

A plant, located in the field, allows for the treatment of rich gas for the daily production and sale of 9 million cubic meters of gas, 15,000 barrels of oil and condensate and 12,000 barrels of LPG.
Eni and the Algerian state company Sonatrach have started gas production from the Menzel Ledjmet East (MLE) field on 31 January 2013, located in Block 405b, around 1,000 km from Algiers, and jointly operated by Eni and Sonatrach.
A plant, located in the field, allows for the treatment of rich gas for the daily production and sale of 9 million cubic meters of gas, 15,000 barrels of oil and condensate and 12,000 barrels of LPG. The project was completed around 4 years after Eni’s acquisition, in December 2008, of the Canadian company First Calgary Petroleum, which owns block 405b.
Eni has been present in Algeria since 1981 and participates in 24 exploration and development licenses which are currently in production, and in 8 permits under development. In 2012, Eni was the leading producer in the country with a daily equity production of approximately 80,000 barrels of oil equivalent. With the start of production at the MLE field and other projects, Eni strengthens its presence in the country, and expects to achieve a daily equity production of 100,000 barrels of oil equivalent in 2013.
To support the exploration, storage and export of its vast natural gas resources, in the mid-1990s Qatar made a multi-million dollar investment in port facilities and infrastructure at Ras Laffan Industrial City (RLIC). Only a decade and a half later, in December 2010, Qatar realised its long-term goal of a total LNG production capacity of 77 Mta, an industry leading achievement made possible by RLIC.

The thriving energy-industry hub in north-eastern Qatar is home to international companies such as RasGas, Qatargas, ExxonMobil, Shell, Total and Dolphin Energy. It is the workplace of some 115,000 people. Covering an area of more than 295 square kilometres, RLIC lies 80 kilometres north-east of Doha. The site is strategically close to the North Field, between the Far East and Europe on the international maritime shipping route. This geographical advantage has enabled Qatar to stay ahead of competing LNG suppliers around the world.
Sidi Krir consists of two 250 MW combustion turbine generators (CTGs). Each one feeds exhaust gases to its respective unfired heat recovery steam generator (HRSG). Steam from the two HRSGs is fed to one 250 MW, single reheat, condensing Steam Turbine Generator (STG). The estimated 750 MW net output is achieved when burning natural gas in the combustion turbines without supplementary HRSG firing. Nitrogen Oxides (NOx) emissions are controlled by dry low-NOx (DLN) combustors. An inlet air filtration system supplies filtered combustion air to the CTGs. The steam exhausted from the steam turbine feeds a once-through cooling, single-pass, divided water box condenser. Power is generated at manufacturer’s standard voltage in the CTGs and the STG, stepped up through main transformers, and fed to the EEHC National grid via a 500 kV, GIS switchyard. The Mediterranean Sea provides the plant cooling water.
Total project value: $500,000,000  
Owner: IOOC  

EPC:  

The island is connected to the Salman oil field in the Persian Gulf via a 91-mile pipeline. It is also connected to a 194-mile pipeline from Assaluyeh, a 41-mile pipeline to the Mobarak offshore platform and a 49-mile pipeline to Sharjah. It's expected the plant will produce about 1,400 barrels of gas condensates, 4,000 barrels of butane, 1,500 barrels of pentane and 8,000 barrels of propane per day. The island, which is about 3.5 miles long and 1.8 miles wide, mainly houses IOOC workforce and naval force personnel. The Iranian Offshore Oil Company (IOOC) has undertaken several major oil and gas development projects on the island including a $0.5 billion (USD) NGL Gas factory and a development contract to develop and increase production of the Iranian Nosrat oil field which is projected to increase crude oil production capacity from 5,000 barrels (790 m³) to 16,000 barrels per day (2,500 m³/d).
South Pars gas field is one of the largest independent gas reservoirs in the world lying on the territorial border between Iran and the State of Qatar in the Persian Gulf. It is one of the country's main energy resources. This gas field covers an area of 9700 square kilometers, of which 3700 square kilometers belongs to Iran. Presently, some precise and sophisticated projects have been designed for development of 24 phases to produce 790 million cubic meters of gas per day. South Pars gas field development shall meet the growing demands of natural gas, injection into oil fields, gas and condensate export as feedstock for petrochemical industries. The development plan for phases 9 & 10 has been designed to produce 56 MMscm/d from the reservoir. The project is being implemented. The objectives of developing phases 9 and 10 are as follows:

- Daily production of 50 MMscm/d of natural gas;
- Daily production of 80,000 bl of gas condensate;
- Annual production of 1 million tons of ethane; and
- Annual production of 1.05 million tons of liquid gas, butane and propane (LPG); and
- Daily production of 400 tons of sulfur
SONEDE
SWRO Desalination Plant - Tunisia

Total project value: $33.000.000
Owner: SONEDE

EPC:

The first stage of this project was to implement on behalf of the water supply facility, SONEDE, ten desalination plants in Southern Tunisia: in the regions of Tozeur, Nefta, Douz, Kebili, Matmata, Hezoua, Mareth, Beni Khdeche, Souk Lahad and Belkhir, with a capacity ranging from 1200 to 8000 m3/day.

The national water quality improvement programme (PNA) aims to reduce the salinity of the water served by SONEDE up to a maximum of 1.5 g/l. The programme extends to two stages:

During the first stage, water quality in regions with a salinity higher than 2 g/l was improved. This stage involved 13 projects, out of which 10 desalination plants with a total capacity of 36,200 m³/d. The first stage was financed by the KfW.

During the second stage, water quality in regions with a salinity higher between 1.5 and 2 g/l has been improved. The second stage of the water quality improvement programme and the capacity building of water in the South of Tunisia encompasses 8 desalination projects of brackish water. The programme also included other infrastructure works like water production (drilling), transfer of water (water pipes), water storage (reservoirs) and remote management system for different stations and for the water served. The second stage also included the realization of eight desalination projects over a total capacity of approximately 32,500 m³/d for all sites.
Kharafi National
West Damietta Power Station - Egypt

Total project value: $373,000,000
Owner: East Delta Electricity Production Company

EPC:

West Damietta project is Simple Cycle Power Generation Project located within the vicinity of existing West Damietta power station. The project consists of 4 outdoor Gas turbines with total capacity of 500 MW (Nominal, ISO). The facility includes all necessary auxiliary equipment including new natural gas reducing and handling facility, wastewater treatment facilities. Power generated at manufacturer’s standard voltage for the CTG stepped up through main transformers and fed to the utility unified grid via on site 220 kV Gas Insulated Switchyard (GIS). The project is executed through a lump sum turnkey basis Contract. The contracting plan for the project utilizes the EPC concept. PGESCo, as Owner authorized representative is responsible for the preparation of tender documents including commercial and legal terms following the Owner procurement guidelines, technical specifications, project management, and construction management. PGESCo is also responsible for startup and commissioning management.
Zubair oil field is located in southern Iraq, approximately 20km south-west of the city of Basrah. The onshore oil field, discovered by Basrah Petroleum Company in 1949, contains 4.5 billion barrels of proven reserves. The redevelopment project primarily involves the drilling of more than 200 wells, the construction of treatment and storage facilities, and refurbishment of the existing facilities.

The new oil and gas processing plant is capable of treating 80,000 barrels of crude oil per day. Six crude oil storage tanks with a capacity of 58,000m³ each are installed at the site.

A 740MW gas-fired power plant was also constructed as part of the redevelopment project. Construction of the workers’ site buildings covering a total area of 25,788m² was completed in October 2012.
Hyundai/Metito
El Harrach WTP - Algeria

Total project value: $350,000,000
Owner: Algerian Ministry of Water Resources

EPC:

The project was commissioned by the Algerian Ministry of Water Resources to a consortium of Algerian construction company Cosider and Daewoo E&C — which has a 70 percent stake at 343 billion won — making it the first overseas river restoration project by a Korean company. The project includes restoring clean river water by installing waste treatment facilities, as well as creating recreation areas alongside the river. The construction is scheduled to be completed by December 2015.
Total project value: $2.180.000.000
Owner: DONG energy

EPC:

The Hejre oil and gas field is located in central part of the North Sea. It lies 300km away from the Danish coast in License 5/98 at a water depth of 70m. The development concept includes a manned wellhead and processing platform. Five HTHP production wells is drilled to a depth of 67m and tied back to the platform. Seven more production wells are planned to be drilled in the future. The field was decommissioned at the end of its operating life. The hydrocarbons recovered at the field include a large concentration of natural gas liquids (NGLs), which necessitate the construction of a dedicated onshore facility. The Hejre processing platform features a wellhead, processing facilities and other equipment. It includes a living quarters to accommodate 70 people. The design of the platform includes a load bearing structure and topsides which was constructed onshore, towed to the field and installed using barge cranes. Piles were driven into the seabed for the load bearing structure. The processing capacity of the platform is 6,000m³ a day. The processing area is split into two streams - live oil containing NGLs and sales gas. It includes coolers, separators and gas treatment system. The platform was built in a South Korean shipyard and was shipped to the Hejre field in 2015. First steel for the platform construction was cut in June 2013.
In June 2013 the Planning Commission said that two CNNC 1000 MWe class reactors would be used for Karachi 2 and 3 (KANUPP 2&3) near Karachi unit 1. Two coastal sites had been under consideration for the twin 1100 MWe units. CNNC in April 2013 announced an export agreement for the ACP1000, nominally 1100 MWe, apparently for Pakistan. This was confirmed in June by the PAEC which said that the next nuclear project would be 1100 MWe class units which it would build, the Karachi Coastal Power station, costing $9.5 billion.

In July 2013 ECNEC approved two units of the Karachi Costal Power Project with net generation capacity of 2,117 MWe. The total cost of this was estimated at Rs 959 billion ($9.595 billion), with $6.5 billion (68%) being vendor finance. PAEC also said that 82% of the total cost would be financed by China. At the end of August contracts were signed in Shanghai with CNNC, China Zhongyuan Engineering Co. Ltd. (CZEC), China Nuclear Power Engineering Co. Ltd. (CNPE), Nuclear Power Institute of China (NPIC), and East China Electric Power Designing Institute (ECEPDI). Ground breaking at the site near Paradise Point, 25 km west of Karachi, took place in November 2013, but in October 2014 the Sindh high court ruling stopped site work following a challenge on environmental grounds, and the restraining order was extended to early December. The project was re-launched in August 2015.
Agence Nationale des Barrages et Transfers
Kissir Dam - Algeria

Total project value: $83.000.000
Owner: Agence Nationale des Barrages et Transferts

The Kissir Dam, located in the wadi of the same name, is 14 kilometres west of Jijel, approximately 1 km from the mouth of the wadi in the sea. It can be easily accessed from the coast road. The works were carried out from 2007 to 2010. The reservoir has been operating to full capacity since 2010.

The main characteristics of the project are as follows:

- Reservoir volume: 48Mm³ under the normal reservoir
- Useful volume: 40 Mm³
- Type of dam: An earthfill dam with a central core and sediment refills
- Normal water storage level: 44.50 NGA
- Highest water levels: 47.90 NGA
- Spillway: A 50m long spillway
- 15m wide gate
- Heat dissipation par cuiller
- Alluvial fill seal: 40m deep wall
- Additional hydraulic constructions: Water intakes on three levels
- Gallery bottom outlets
- Cost of works: 35 million euros
The project, initiated by Najaf Governorate, serves the sewer and storm water treatment needs for the increasing population in the area and is designed to accommodate a capacity of 50,000 cu m/day, said a statement. The project utilises Turbo4bio, a new technology that guarantees a high energy-efficient wastewater treatment process with a small footprint. Turbo4bio (T4b) stands for ‘Turbo-Reactor for intense Biofilm production’ and it is suitable for treatment of municipal and low to medium load industrial wastewater, from which it produces a very high quality effluent with very low sludge production, close to zero. The unique design features of the system provide the self-cleaning capability of the T4b-Turbo Reactor against any possible clogging, making it almost maintenance-free, it said.
Emaar Misr for Development
Marassi North Coast - Egypt

Total project value: $1.700.000.000
Owner: Emaar Misr for Development

EPC:

The mega-project Marassi located on the North Coast of Egypt. Overlooking the glorious view of Sidi AbdelRahman Bay, Marassi is a 6 km waterfront community that unfolds a year-round upscale residential, tourism, leisure, and commercial lifestyle development lining the Mediterranean Sea coast. Spread over a land area of 6.25 million m², the project features seven waterfront residential districts inspired by various architectural styles including that of Andalusian, Santa Barbara, Tuscan, Formal Italian, and Spanish Colonial.

Offering a built-up area of 1.85 million m², Marassi features an 18 hole golf course, a marina, spas, a town and commercial center, and a number of public services. Strong focus is devoted to the establishment of convention facilities and accommodation amenities via eight major hotel establishments. With a construction cost of 1.7 Billion US$, Marassi comprises two world-class beach clubs which offer to residents a string of recreational outlets including magnificently landscaped panoramas.
Skikda Seawater Desalination Plant (SWDP) is located in the northern part of Algeria (Mediterranean Sea) and will have a total production of 100,000 m³/d. It is being developed under a 25-year DBOOT contract with Algerian Electrical Company (AEC) in a Joint Venture named GEIDA (Bef-es-Sadyt) in order to supply water for human consumption to the area. Based on reverse osmosis (RO) technology, the raw water is driven from a seawater open intake to the pre-treatment stage which consists on two filtration steps with sand and anthracite. After cartridge filters as a security barrier prior to the RO process, this is designed with five independent RO lines equipped with pressure exchangers as energy recovery devices. Finally, the post-treatment will be made by means of dolomite filter beds to get the optimal quality conditions. This plant, one of the first desalination plants built in the country, which has been in operation and maintenance since March 2009, supplies the city with the same name with drinking water as well as the petrochemical complex where it is located.
Metito
Suez Power Station - Egypt

Total project value: $25,000,000
Owner: East Delta Electricity Production Company (EDEPC)

EPC:

The project consists on designing, supplying and installing water and wastewater treatment systems to produce demineralised water at the quality needed for operating high pressure boilers, condensate polishing units, hypochlorite generation and chemical injection systems. The scope of the project also includes providing East Delta Electricity Production Company (EDEPC) with a wastewater treatment plant and a water/oil separation system to treat the effluent water for discharging within the standard limits predetermined by the local environmental authorities. Scheduled to be completed in 2016, the project introduces the Ultra Filtration technology to improve the treated water quality for other sites including; Damitta, Banha, Giza North and Suez and to help in upgrading the efficiency of power supply across the country.
In March 2005, the Mubarak Pumping Station - centrepiece of Egypt's ambitious Toshka Project to reclaim half-a-million acres of desert - was named one of the five most outstanding civil engineering achievements of the year by the American Society of Civil Engineers (ASCE). The Toshka project - an ambitious project to create a second Nile Valley, redirecting 10% of the country's allotment of water from the Nile via a massive irrigation scheme - arose as part of a plan to increase the inhabitable land from 5% to 25%. One of the Egyptian Government's mega-projects, Toshka and the Southern Egypt Development Project aims to develop and extend agricultural production and create new jobs and population centres away from the narrow confines of the Nile Valley.

It has been called "Egypt's hope for the 21st century" but installing modern irrigation systems on such a scale is costly and takes time. Inevitably, funding constraints have had an effect over the years, though at the end of June 2005, 90% of the project infrastructure was described as completed, with the remaining work progressing on schedule.
Total project value: $1.200.000.000
Owner: Abu qir Fertilizers and Chemicals Industries Company

EPC:

The complex consists of:

- AbuQirI, a 1000 mtpd ammonia plant (Uhdetechnology), a 1550 mtpd urea plant (Stamicarbon technology) and a urea prilling plant, general contractor was Uhde GmbH, financing via German Export Finance (Kreditanstalt für Wiederaufbau, KfW), the plant was commissioned in September 1979.
- AbuQirII, a 1000 mtpd ammonia plant (Uhdetechnology), a 1800 mtpd nitric acid plant (Uhde technology) and a 2400 mtpd ammonium nitrate granulation plant (Uhde and Hydro Agri technology), general contractor was Uhde GmbH, financing also via KfW, this plant was commissioned in July, 1991.
- AbuQirIII, a 1200 mtpd ammonia plant (Uhdetechnology), a 1750 mtpd urea plant (Stamicarbon technology) and a 2000 mtpd granulation plant (Hydro Agri technology). The financing scheme was arranged by AFC via its shareholders and other Egyptian sources. Also for the third project Krupp Uhde was selected as the general contractor.
Total project value: $375.000.000
Owner: NISCO

EPC:

Baft Steel Plant is one of eight direct reduced iron-fed mini mills NISCO committed to build by 2010. The plant has a billet capacity of 800,000 tpy and is one of the eight steel projects that the Iranian government promoted to develop economically backward areas of the country. An investment of USD 375 million was allocated to the Baft project and 1.25 billion tpy of pellet were supplied by Gol-e-Gohar Iron Ore Co. Baft Steel's capacity is capable of being lifted to 2 million tpy.
The Sepid Dasht Steel, located in the central Iranian province of Chaharmahal and Bakhtyari, is one of eight mini-mills with 800,000 mt capacity per year being built by Iran in underdeveloped regions of the country. The DRI plant was put into operation in the second quarter of 2011, with the steel plant, which produces slab, been put into operation in the first quarter of 2012.
SNIM
Guelb II Project Zouérate - Mauritania

Total project value: $932,000,000
Owner: SNIM

EPC:

The Guelb El Rhein site, located 25 km Northeast of Zouérate in the Tiris-Zemmour Wilaya (District) in Northern Mauritania, is one of the most important sites exploited by SNIM. It has an annual output of 10 million tons of crude iron ore. SNIM intends to double the site’s yearly production to 20 million tons of crude ore by 2012, corresponding to a concentrate production of approximately 8 million tons a year. The project also includes the exploitation of the new Tiguilelaten aquifer field, the construction of a new reverse osmosis water treatment plant and placement of the supply main linking them, the upgrading of the capacity of the thermal power plant, the expansion of the maintenance workshops, the construction of a new train loading point and a new waste rock dump.
Hurghada International Airport (IATA: HRG, ICAO: HEGN) is the international airport of Hurghada in Egypt. It is located inland, 5 km (3.1 mi) southwest of El Dahar, the downtown of Hurghada. It is the second busiest airport in Egypt after Cairo International Airport and important destination for leisure flights mainly from Europe. The airport is currently features two passenger terminals: Terminal 1 and Terminal 2. Construction of the new terminal complex at a cost of $335 million, which was mainly financed by the Arab Fund for Economic Development. Egypt’s aviation minister, Houssam Kamal, said that the airport would be able to host up to 13 million visitors annually. The project was inaugurated by President Abdel Fattah el-Sisi on December 17, 2014. The new terminal has a total area of 92,000 square meters on 3 levels. The departure hall has 72 check-in counters and 20 departure gates.
Kaveh Methanol plant is the largest production plant of its kind in the world with production capacity of 7000 MTPD grade AA Methanol under Casale license located in Bandar Dayyer, aside Persian Gulf. All the necessary utilities to support process units are also produced within the compound independent of outside resources. The world largest Air Separation Unit is constructed to provide process requirements for Oxygen, Nitrogen, as well as Argon for sale. Water Desalination, Polishing, and Cooling units, as well as Electrical Power requirements for safe and sound operation of the plant are provided. Steam is also produced at different pressures as required for plant operation. All the plant equipment is purchased from reputable, well known manufacturers in the oil and gas industry. The plant is due to commence operation by March 2016 with exporting capability from its private jetty.
Libyan Iron & Steel Company
LISCO Power Steel Plant - Libya

Total project value: $650,000,000
Owner: Government of Libya

EPC:

The Libyan Iron and steel is considered one of the largest industrial companies in Libya, located on an area of 1,200 hectares near the town of Misrata, just 210 kilometres to the east of the city of Tripoli.

Steel Plant No.1: the plant entered stage of commercial operation on 10/16/1989 with an annual designed production capacity of (670,000) tonnes of liquid steel to produce (630,000 tons) of billets and blooms, and during the year 2008 was the completion of the expansion of the plant to reach annual designed capacity of about (1,000,000 tons), and the plant uses three (3) electrical arc furnaces each with a capacity of (90 tons).

Steel Plant No. 2: the plant entered the stage of commercial operation in 1991 with an annual design production capacity of (650,000) tonnes of liquid steel to produce (611,000) tons per year of slabs, using (3) electric arc furnaces each with a capacity of (90 tons)
Total project value: $192,000,000
Owner: National Iranian Steel Company (NISCO)

EPC:

This project consists of design, manufacturing, factory testing of mainly 140 ton EAF, LF, billet casting machine, dedusting unit, water treatment plant, oxygen and service compressed air plant, main substation, material handling system, auxiliary buildings, cranes and finally a transformers and ancillary equipments, packing, supply of necessary insurance policies, transportation, off loading and storage, erection and commissioning works and necessary guarantees for MIYANEH steel PLANT (MIYANEH SMP).
The Urea/Ammonia Fertilizers Project aims to produce Ammonia and Urea fertilizer with a capacity of 1,200 t/day of Anhydrous Ammonia and 1,925 t/day of Granular Urea. A gas feedstock agreement for the project was concluded with Egyptian Natural Gas Holding Company (EGAS). The ammonia plant was to be based on Uhde’s proprietary ammonia process while the urea plant uses Netherlands-based Stamicarbon’s synthesis technology. The project aims to produce 1.38 million tons of urea annually, through two production lines with production capacity of 650,000 tons each.

The urea production will be allocated between meeting the needs of local market and export’s orders.
Iran’s Mobarakhe Steel built a new DRI module as part of plans to raise the production of hot rolled coil from its Saba Plant. Mobarakhe intended to double the capacity of the 700,000 tonnes/year Saba mill over the next years, and the new DRI module was part of this plan. Saba produces HRC by the thin slab casting route. The new DRI unit, based on Midrex technology, started production on March 2011 having a capacity of 1.5m t/y. The Saba Steel Complex, near Isfahan, which has been designed and constructed by Isfahan Steel Mill, adds a total of 700,000 tons of steel sheets to the country’s annual production.
Ascotec GmbH
Shadegan Steel Making Plant - Iran

Total project value: $330.000.000
Owner: NISCO

EPC:

The Shadegan Steel making plant mainly consists of direct reduction plant, electric arc furnace, ladle furnace, continuous casting plant, and auxiliary plant units for the production of 800,000 tons billets per year. On this respect the contract was signed for Shadegan steel making project between G.S.I.Co and NISCO on 2009. The steel making plant site is located near the city of Shadegan,
Owner: Sibur
Total project value: $9.500.000.000

EPC:

ZapSibNeftekhim, a subsidiary of Sibur, started construction of its integrated ZapSibNeftekhim Petrochemical Complex (ZapSib-2), located approximately three kilometres north of Sibur's polymer site at Tobolsk, following its final decision to proceed with the project in September 2014. Project planning began in 2012.

The complex integrates a steam cracker for production of ethylene, propylene and butane-butylene fraction (BBF) and includes polyethylene units and a polypropylene unit. It is the biggest integrated complex for the production of polymers in Russia when it came online following a construction period of five to five-and-a-half years.

ZapSib-2 costed RUB360bn (approximately $9.5bn). Sibur sanctioned a budget around RUB74bn (approximately $1.4bn) for the project in 2014. Ethylene units produce 1.5 million tonnes per annum of ethylene, 500,000tpa of propylene and 100,000tpa of BBF, using ethane, propane and n-butane as feedstock. These products cater to the plastics manufacturing industry. The polyethylene plant has a designed capacity of 1.5 million tonnes per annum. It comprises a linear low / high-density gas phase polyethylene (LLDPE) plant featuring two 400,000tpa trains and a high-density slurry phase polyethylene (HDPE) plant featuring two 350,000tpa trains. Ziegler monomodal, Ziegler bimodal, Chromium and metalloocene products are produced from the plant.
The “Centro Sperimentale del Latte” was born in 1948 by the idea of Dr Leo Vesely. This company is the first Italian company which aims to study the lactic bacteria and other food grade microorganisms. Today the CSL studies, produces and commercializes probiotics, lactobacillus, moulds and yeasts for the pharmaceutical and food business. In his plants the CSL uses the Crio and Madri machinery for its product making process.
Ultra-high temperature processing (UHT), or ultra-heat treatment, sterilizes food by heating it above 135 °C (275 °F) – the temperature required to kill spores in milk – for 1 to 2 seconds. UHT is most commonly used in milk production, but the process is also used for fruit juices, cream, soy milk, yogurt, wine, soups, honey, and stews. UHT milk was first developed in the 1960s and became generally available for consumption in the 1970s.

The heat used during the UHT process can cause Maillard browning and change the taste and smell of dairy products. An alternative process is HTST pasteurization (high temperature/short time), in which the milk is heated to 72 °C (162 °F) for at least 15 seconds.

UHT milk, if not opened, has a typical unrefrigerated shelf life of six to nine months. HTST pasteurized milk has a shelf life of about two weeks from processing, or about one week from being put on sale.