





<b>VISION, MISSION &amp; VALUES</b> .....	<b>02</b>
<b>BUSINESS UNIT - PROJECTS</b> .....	<b>03</b>
Oil, Gas & Power Projects .....	04
MEP Services .....	08
Electrical Projects & Instrumentation .....	12
Civil Construction .....	16
District Cooling .....	20
Water & Waste Water Projects .....	21
Renewable Energy .....	22
<b>BUSINESS UNIT - PRODUCTS</b> .....	<b>23</b>
Electrical Products .....	24
Mechanical Products .....	25
Power Generation .....	26
Elevators, Escalators & Trav-o-lators .....	28
Chemical & Industrial Products .....	30
<b>BUSINESS UNIT - SERVICES</b> .....	<b>31</b>
Facilities Management .....	32
Industrial Maintenance .....	35
Elevator / Escalator/ Trav-o-lator Maintenance .....	36
Generator & Auxiliary Maintenance .....	37
Diesel Power Generators Hire .....	37
<b>MANUFACTURING</b> .....	<b>38</b>
<b>INVESTMENTS</b> .....	<b>39</b>
<b>OUR COMMITMENT</b> .....	<b>40</b>

# BAHWAN ENGINEERING GROUP

OMAN • DUBAI • ABU DHABI

Founded in 1977, **Bahwan Engineering Group** is one of Oman's foremost business houses. The Group has emerged as one of the largest engineering construction, trading & services group in Oman.

For over four decades, the Engineering Group has been associated with nation-building projects, not only in Oman but in the UAE too. Its core values have enabled the Group to successfully execute numerous projects to exacting standards.

BEC, today, executes integrated multi-disciplinary construction projects under one umbrella, involving Civil, Mechanical, Electrical, Instrumentation, Elevators & Escalators, Diesel Power Generation etc. It is also involved in trading in Electrical, Mechanical, Chemical products and Facilities Management Services, within Oman and the UAE. With more than 13,000 employees, including about 1000 engineers, the group has established itself as the leader in integrated construction projects in sectors such as Oil, Gas & Power, HV Transmission & Distribution, Airports,

Hotels, Hospitals and Commercial-Residential Complexes.

Major engineering contracts for integrated projects, such as Muscat International Airport, Oman LNG, Sohar Seawater Intake and Return System, Sohar Power & Desalination Plant, Barka and Sohar Power Transmission System, Sohar Fertilizer Plant and Marmul Polymer Flooding amongst others, attest the Group's growing reputation as the country's premier preferred engineering contractor.

BEC is the first company in its category to achieve ISO 9001 certification for "Project Management and construction activity comprising Civil, Mechanical, Electrical & Instrumentation works associated with Oil, Gas, Power and Industrial Projects".

BEC has well documented "HSE Management System" in line with international standards and is certified for OHSAS 18001 & ISO 14001. The company has excellent HSE performance track record as one of the safest contractors in Oman.

## OUR BUSINESSES

PROJECTS	PRODUCTS	SERVICES	MANUFACTURING
Oil, Gas & Power	Electrical Products	Facilities Management	Chemical Manufacturing
MEP	Mechanical Products	Industrial Maintenance	<b>OTHER INTERESTS</b>
Electrical & Instrumentation	Power Generation	Elevators / Escalators / Trav-o-lators Maintenance	Investments
Civil Construction	Elevators, Escalators & Trav-o-lators	Generator & Auxiliary Maintenance	
District Cooling	Chemical & Industrial Products	Diesel Power Generators Hire	
Renewable Energy			
Water & Waste Water			

To be the region's first choice EPC organisation by exceeding the expectations of our clients, offering a bright career path to employees and ensuring sustainable growth for the community while preserving the environment

# VISION MISSION VALUES

Excellence in execution, sales and services with focus on customer satisfaction; care for employees, community & environment and sustainable growth

## Integrity

- Support for doing the right thing.
- Keep promises even if it takes extra effort.
- Won't turn our backs towards something wrong or unsafe.
- Take responsibility and be accountable for all our words and deeds.

## Excellence

- Keep raising the bar.
- Go the extra mile to deliver the best.
- Be self-motivated.
- Strive to innovate and create.

## Commitment

- Committed to ensure safety for everyone.
- Encourage employees to achieve their maximum potential.
- Work towards exceeding customer expectations.
- Appreciate the skills and abilities of others.
- Extra care for actions that affect the community we live in.

## Teamwork

- We are one.
- Listen to and learn from each other.
- Work with enthusiasm and appreciation.
- Combine our expertise and knowledge.

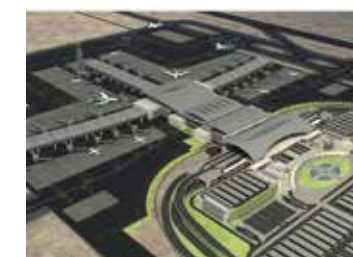


# BUSINESS UNIT PROJECTS

BEC's vast experience in the construction industry has been instrumental in the successful completion of prestigious projects in Oman & UAE. With more than 13,000 employees, including about 1000 engineers, the Group is an established leader in integrated construction projects across diverse sectors.



OIL, GAS & POWER



MEP



ELECTRICAL & INSTRUMENTATION



CIVIL CONSTRUCTION



DISTRICT COOLING



RENEWABLE ENERGY



WATER & WASTE WATER



# Oil, Gas & Power Projects

Oil, Gas & Power Projects Division executes integrated multi-disciplinary Engineering & Construction projects on CMEI basis under one umbrella, involving Civil, Mechanical, MEP, Electrical and Instrumentation works.

The division has been associated with nation-building projects such as, Oman LNG, Sohar Refinery, Sohar Fertiliser Plant, DHDS Project of Oman Refinery, Salalah Methanol Plant, Saih Rawl Depletion Compression Project, Marmul Polymer Flooding project etc. in Oil & gas sector. The division is in forefront in installing Power and Desalination plants in Oman and UAE, having executed many projects including Sohar-1 IWPP, Barkha-2 IWPP, Sohar-2 IPP and Oman's largest Power Plant, 2000MW Sur IPP. The division is also associated with CMEI / MEI Construction works of Main Process Units at the Sohar Refinery Improvement Project and EPC Contract at Marmul Cluster for Petroleum Development Oman.

Projects in UAE include MEI works for 600MW Power Plant at Al Aweer, Mechanical works for 450MW Power Plant at Jebel Ali, Mechanical works for Ruwais Refinery Expansion project and Mechanical construction works for Carbon Black & Delayed Coker project.

The Quality Systems of CMEI Operations have been certified to ISO 9000 Quality Standard since 1995, being the first to achieve this certification in its category in Oman. The division has an excellent HSE track record involving 15 Million LTI free man-hours at LNG Projects, 13 Million LTI free man-hours at Saih Rawl Project of PDO, 12 Million LTI free man-hours at Ruwais Refinery Expansion project, 5 Million LTI free man-hours at Sohar Fertiliser etc.

CMEI Operations of BEC has been the most preferred and trusted partner of International EPC Contractors such as Bechtel, Chiyoda Foster Wheeler, Samsung, GSEC, Doosan, SKEC, Daewoo, Hyundai, TR Engineering, Mitsubishi etc., having executed multiple projects with each of these organisations.



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- 1 Mechanical, Electrical & Instrumentation construction works of process, off-sites and utilities for Qalhat LNG Project (Train III).
- 2 Mechanical, Electrical & Instrumentation construction works for DHDS Project, Oman Refinery.
- 3 Civil, Mechanical, Electrical & Instrumentation construction works for Marmul Polymer Flooding Project.
- 4 O LNG Train I & II: EPC of temporary facilities/ utilities, EPC of new industrial building and Civil & Mechanical construction works for off-sites and utilities.
- 5 Civil, Mechanical, Electrical & Instrumentation construction works for Saih Rawl Depletion Compression Project.
- 6 Mechanical, Electrical & Instrumentation Construction works for Sohar International Urea & Chemical Industries.





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## Oil, Gas & Power Projects

- 7 CME&I works for Sohar Refinery Improvement project.
- 8 Mechanical, Structural & Piping Installation works of 3X250 MW STG, Seawater Intake and associated auxiliaries for 2000 MW Sur Independent Power Plant.
- 9. Mechanical, Electrical & Instrumentation construction works for 585 MW Power & 33 MIGD Desalination, Sohar IWPP Phase-1.
- 10 Project Management, Supervision and Mechanical, Structural & Piping Installation works for Ruwais Refinery Project, Abu Dhabi.
- 11 Mechanical, Electrical & Instrumentation works for Jebel Ali D DEWA Project.
- 12 Mechanical, Structural & Piping Installation works for 680 MW Power & 26 MIGD Desalination, Barkha IWPP Phase-2.



## Mechanical, Electrical & Plumbing (MEP) Services

Mechanical, Electrical & Plumbing Projects (MEP) division has been associated with landmark projects in Oman & the UAE. This division has diverse experience in executing Mechanical & Electrical works for Airports, Hotels, Hospitals, Palaces, Ministry & Bank Headquarters, Commercial Complexes, Industrial Projects, Multi-storeyed Buildings, Residential Complexes and various Iconic projects. Due to the in house strength of engineering capabilities, co-ordination of services and vast experience with local knowledge, we deliver projects to the exceeding satisfaction of our clients.

A team of dedicated engineers is geared to carry out installation of:

- Central Air-Conditioning & Ventilation Systems
- Plumbing & Sanitation
- Firefighting & Fire Alarm
- Electrical and Specialized Systems
- Solar Powered Systems

For over four decades, MEP division has been associated with prestigious projects in various sectors.



### Muscat Intl. Airport

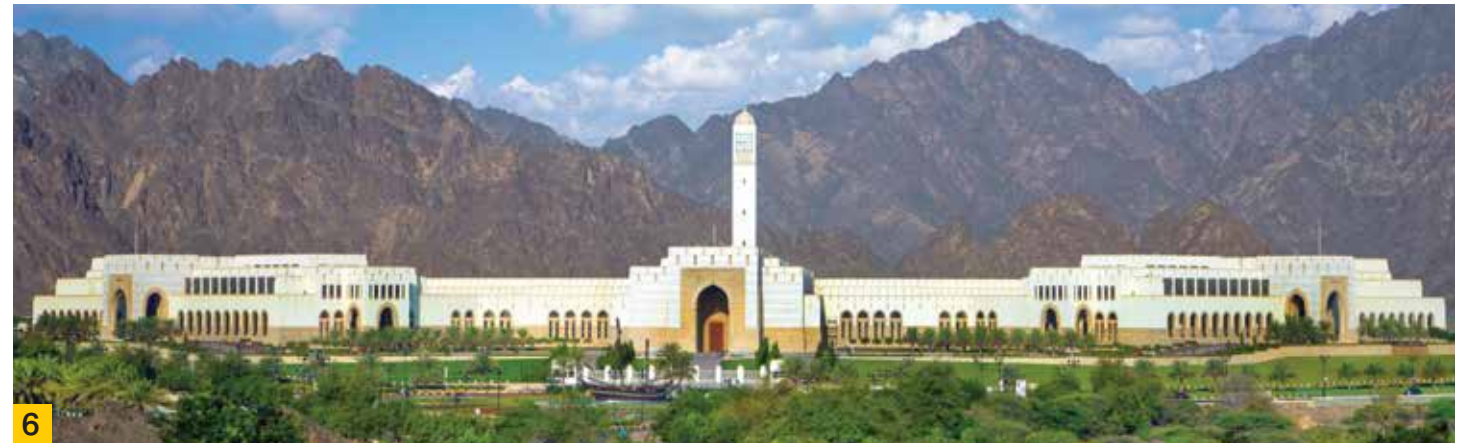
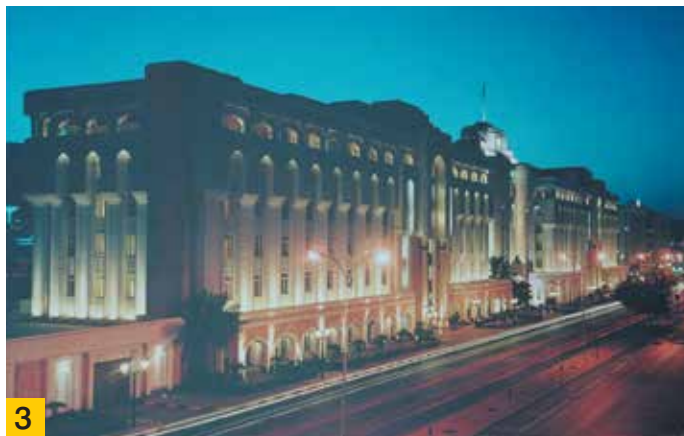
Complete MEP works for Passenger Terminal Building and Utilities for Airport infrastructure comprising of 51,000 TR of cooling plant, 40 MVA of standby power generation, 3 nos. 132/11 kV Substations, 70 nos. 11 kV/415 V Secondary Substations, 550 kms of cabling, 225 kms of chilled water piping and various specialist systems like Fire Alarm & Fire Fighting, Public Address System, IT Passive Network, BMS & SCADA etc.



### Salalah Airport

Air-conditioning & Mechanical ventilation works (ACMV) comprising 10000 TR Centralised Cooling plants and 8 kms external Chilled water networks and complete HVAC works for all the buildings.





## Mechanical, Electrical & Plumbing (MEP) Services

- 1 Royal Opera House, Muscat.
- 2 Muscat City Centre.
- 3 Central Bank of Oman HQ, Muscat.
- 4 Royal Guard of Oman Technical College.
- 5 Oman Convention & Exhibition Centre.
- 6 Majlis Oman, Muscat.
- 7 380 bed Hospital and Residential Complex at Sohar.
- 8 Mall of Oman, Muscat.
- 9 Movenpick Hotel & Furnished Apartments, Spa and 7 nos. Residential Towers for Oceana, The Palm, Dubai.



# Electrical Projects & Instrumentation

Electrical Projects Division is actively involved in Turnkey Project Execution of Power Stations, Substations and Transmission Lines in Transmission & Distribution Networks. The division is actively involved in EPC transmission and distribution projects for utilities and Oil & Gas sector as well as E&I works in process and power plants.

From its inception in 1977, the division has grown extensively in terms of nature of work and expertise and today has experience in executing projects from LV works to up to 400kV on an EPC basis. Electrical and Instrumentation activities in the Oil & Gas Sector and the Oman LNG Project (both upstream and downstream) as well as Power Stations in Oman and in UAE have widened the horizon.

A good understanding of the Clients'/ Consultants requirement, a committed team of personnel, availability of in-house dedicated plant, machinery and testing equipment are some of the key factors which have contributed to the growth.

Acceptance of challenges and setting new standards in terms of Project Completion has been a hallmark of the operations of the division. This has been demonstrated in the timely completion of EPC projects like 220 kV Barka Transmission System (first 220kV in Oman), 220kV Sohar Transmission system, 220kV Sur Substation etc. The Division has also successfully executed 17 Nos of 132/11kV Substations on EPC basis at Dubai directly with DEWA and through developers.

At Muscat International Airport Project, the division executed the complete EHV and MV network comprising of approx. 90 kms of 132kV cables, 3 substations of 132/11kV, more than 100 secondary stations of 11/0.415kV and approximately 250 Kms of 11kV cables. The division has completed the 220kV Sur substation, which is biggest in Oman till date with 22 bays of 220kV GIS and is also Oman's longest 400kV line (260 kms) from Sur to Izki. Division recently commissioned 220kV Mobellah and 400/220kV Ibri substations.

The division has also won prestigious contracts from M/s. Oman Electricity Transmission Co. (OETC) for 3 Nos 400/220kV Substations namely Sohar IPP, Sohar SFZ and Seh Al Makaram and Associated 220kV cable works, which is first of its kind in Sultanate of Oman.



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- 1 400kV GIS – 17 Bays with Bus Duct, 3x500MVA Transformers for New 400/220kV IPP Grid station at Ibri, Oman.
- 2 220kV Gas Insulated Switchgear at Mabella-1 Grid Station.
- 3 132/33kV Grid Station at Wadi Kabir.
- 4 220kV GIS at Sohar Power Station Sub-station.
- 5 Ibra 132/33kV Grid Station with 2x125 MVA Transformers.





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## Electrical Projects & Instrumentation

- 6 220kV Sub-station at Felaj for Barka Transmission System.
- 7 220kV Grid Station at Sur, the largest in Oman, for Oman Electricity Transmission Company.
- 8 132/33kV Grid Station - Madinat Nizwa.
- 9 132kV GIS at Al Quoz Substation for Dubai Electricity and Water Authority (DEWA).
- 10 132kV Gas Insulated Switchgear with LCC Panels at Mahadha 132kV Grid Station.
- 11 Mabellah 220kV Terminal Tower & Gantry Arrangement.



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# Civil Construction

For over four decades, Bahwan Contracting Company (BCC), has been associated with nation building projects in Oman by successfully executing EPC projects, BOO, BOOT and PFI, either solely or in Joint Venture with other leaders in the industry.

Our core values of integrity, excellence, commitment and teamwork have enabled us to successfully execute numerous projects to exacting international standards. Our dedicated and result oriented management and project planning control enable us to deliver projects on time. We follow a collaborative and pro-active approach in dealing with clients and endeavour to constantly outperform by delivering projects of the highest quality standards, completed on time and within the allocated budgets.

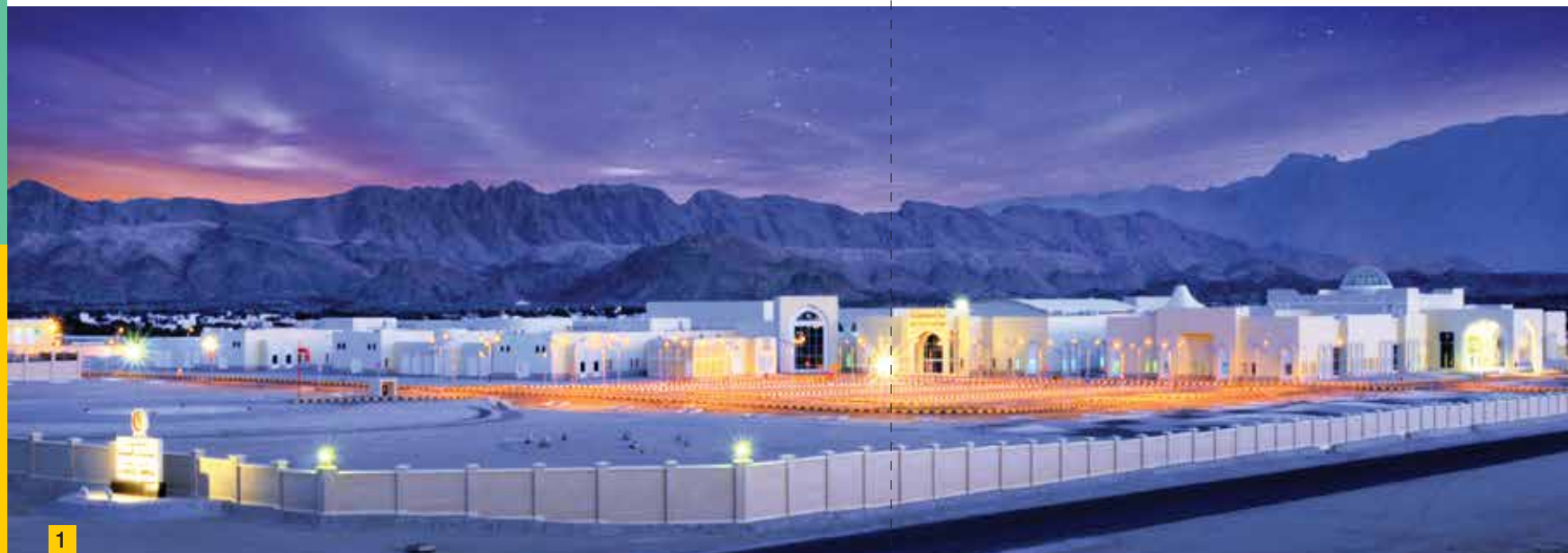
### The range of operations includes:

- Multi-storied Office Buildings & Bank Buildings.
- Infrastructure Buildings & Structures.
- Industrial Construction related to Gas, Power, Petrochemical, Water & Sewage Industry.
- Workshop, Warehouse & Accommodation Facilities.
- Multi-storied Building construction involving high finishes for Institutions and Mixed-use Developments.
- Hospitals
- Hotels
- High-end Luxury Villas for VVIP's
- Mosques
- Integrated Township Projects

BCC is fully mobilized to undertake multi-disciplinary projects of any type, magnitude, complexity and has dedicated teams of highly experienced engineers to execute projects in time and with unmatched quality. It is this proven ability to deliver projects which instills confidence in clients and consultants to entrust BCC with some of the most prestigious and demanding projects. BCC works closely with consultants by exchanging value engineering inputs resulting in optimized solutions.

Health, Safety and Environment protection (HSE) is an integral part of BCC's operations, with an excellent record to support the same. BCC is accredited with ISO -14001 & OHSAS 18001. Senior Management provides strong, visible HSE leadership & commitment to complete most projects with ZERO LTI.

BCC has established a Quality Management System which is accredited with ISO 9001:2008 Certification.



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- 1 Al Masarra Hospital for Ministry of Health at Amerat.
- 2 Oman Arab Bank HQ at Al Ghubrah.
- 3 OTE Car Showroom, Corporate Offices and Service Building at Wattayah.
- 4 Mosque at Sur.
- 5 New Digital T.V. Studios Complex at Madinat Al Ilam.
- 6 5 Star Convention Hotel in Muscat.





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## Civil Construction

- 7 Balance of Plant of Sur Independent Power Plant.
- 8 CME&I works for Sohar Refinery Improvement project.
- 9 Design & Build of Seawater Intake and Return System at Sohar (334,000 m<sup>3</sup>/hr. capacity) for Majis Industrial Services SAOC.
- 10 Al Hail Greens Residential Development Phase-1 consisting of 11 Villas, 15 Town Houses, 18 Apartment Blocks (G+5) Club House, External Works including recreational facilities & services infrastructure.
- 11 Liwa Plastics Industries Complex Project – EPC 2, Sohar – Civil Works & Process Buildings.
- 12 CME&I Works for 250,000 cu.m / day capacity Sohar Independent Water Project.
- 13 Construction of new 400/220kV Ibri Grid Station and associated 220kV OHL Works.



## District Cooling

Muscat District Cooling, part of BEC Group is the only Omani company providing chilled water as a utility service. As the demand for cooling and energy-efficient solution is growing, district cooling is becoming an essential part of urban development. District cooling system provides buildings with cooling which is energy-efficient, cost effective and environment friendly.



- 1 District cooling & MEP Services for Tilal Complex, Muscat.
- 2 District cooling for Al Mouj (The Wave) Muscat.

## Water & Waste Water Projects

The Water & Waste Water Projects division offers construction solutions & maintenance for Desalination Plants, Water Treatment Plants & Sewage Treatment Plants. The division also executes indoor and outdoor Reverse Osmosis Plants, Softeners, Demineralisers for specialised uses such as hospitals, hotels, industrial projects etc.



- 1 Desalination plant at Oman LNG plant - Sur.
- 2 Upgrade Darsait STP for Haya from 12,000 m<sup>3</sup>/day to 22,000 m<sup>3</sup>/day.
- 3 Indoor Reverse Osmosis plant for Rustaq Hospital.





# Renewable Energy

## AL MAZYUNAH SOLAR POWER PROJECT

We have developed, built, installed and commissioned the first commercial on-grid PV Solar Power Plant in the region. We are also responsible for operation and maintenance of the plant for its contracted 20 years and beyond.



Renewable energy plays a dominant role in our Group's strategic plans for the future. BEC Group has been the pioneer in solar energy initiatives in Oman. We have invested in and developed Oman's first and only PV Solar Plant feeding power to a public grid.

We, along with our select partners, can design, build, commission and maintain efficient solar energy infrastructure from the ground up, helping our clients meet growing needs for clean and sustainable power. We are also working on various other opportunities to exploit the nation's abundant Solar Irradiance, aimed at conservation of depleting fossil energy resources. BEC Group is also working closely with international contractors to develop the nation's Wind Energy potential.

Capitalising on our expertise and experience, we are able to undertake turn-key responsibilities for renewable energy projects for all applications – from captive small auxiliary power generation units to large-scale independent power plants connected to a national grid.



# BUSINESS UNIT PRODUCTS

The Products Business Unit of BEC provides a comprehensive basket of solutions to the diverse Electro-mechanical needs of the vibrant industry in Power, Oil & Gas and Building Services sectors.

Prestigious projects in the Sultanate of Oman related to Industrial, Power, T&D, Oil & Gas, Transport, Tourism, Health care, Hospitality, and Education etc. share one thing in common which is, Products & Solutions from BEC's Products Business Unit (BU).

The BU represents a number of leading manufacturers from around the world who enjoy eminent leadership status in the Sultanate – a status gained and sustained due to the trust bestowed by their ever growing clientele in the quality of engineering solutions and after-sales-services provided. Teams of Managers, Engineers and Executives are well equipped to provide technical support to the various customers in arriving at the optimum solution. Sales teams are backed by excellent Service Engineers, geared to render 24 hours service backup.

Inventory of spare parts is maintained in BEC's own 40,000 m<sup>2</sup> warehouse with a dedicated team catering to the needs of our clientele. It is the only Business Unit of its kind in Oman that also offers Customized Solutions to its clients with a commitment to address their business and technology demands while upholding industry standards & best practices. The Products Business Unit operates branches in Salalah & UAE.



ELECTRICAL PRODUCTS



MECHANICAL PRODUCTS



POWER GENERATION



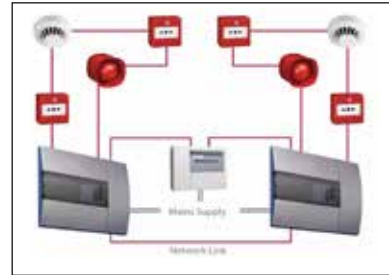
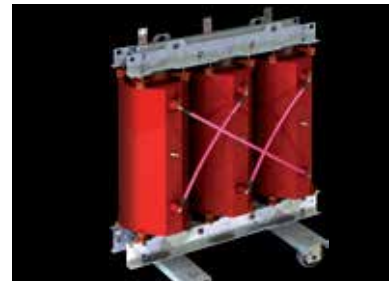
ELEVATORS & ESCALATORS & TRAV-O-LATORS



CHEMICAL & INDUSTRIAL PRODUCTS



## Electrical Products



The Electrical Products Division of BEC represents a number of leading manufacturers from around the world. The team consists of professionally qualified Engineers and Sales Executives who are fully conversant with all the aspects of the Electrical Products marketed by us. The division provides adequate technical support on the various products sold. The Sales Team is backed up by well equipped and professionally trained Service Engineers, who can assist in installation, commissioning and provide After-Sales Services.

The division deals in a wide range of requirements of Power, Oil & Gas and Building Services Projects. The Division is the largest of its kind in Oman and is able to successfully assist utilities, contractors and retailers on most of their requirements and has been associated with many of the leading projects executed in the Sultanate of Oman. Some of the Electrical Products marketed by the Division are:

- LV, MV & HV Switchgear (Indoor/Outdoor)
- RMUs ■ Autoreclosers ■ LV HV Bus Ducts
- Power & Distribution Transformers (Oil/Cast Resin Dry Type) ■ Air Conditioned Shelters/ Containerized Switch Rooms, Transformer Skids ■ Hazardous Area Products
- Earthing & Lightning Protection Equipment
- Building & FR Wires ■ LV, MV, HV Cables
- Instrumentation Cables ■ Cable Trays, Ladders, Trunking (MS/Al/S.Steel & GRP)
- Caution Tapes ■ Cable Tiles ■ Cable Clamps & Cleats ■ Joints & Terminations (Cold Shrink/Heat Shrink) ■ Mechanical Seals for Cable & Pipe entries into buildings
- Standard & Industrial UPS Systems
- Central battery Systems ■ Fire Alarm Systems ■ Street Lighting Poles & High Masts (Steel/GRP) ■ OHTL MV & HV Disconnectors ■ Wood Poles for Distribution & Transmission Lines ■ MV, HV & EHV Silicon Rubber Insulators ■ OHTL AAAC/ACSR/ Special Conductors ■ OHTL Fittings, Cross-arms, Hardware & accessories
- Substation Connectors etc.

The Division carries large stocks of several Electrical Products such as Wires; Cables; all Cable Management System products; Conductors; Insulators; Wood Poles, fittings, hardware & accessories; Overhead line Disconnectors; Distribution Transformers; RMUs; Feeder Pillars; Earthing and Lightning Protection equipment; Lighting Poles etc.

The Division also provides customized solutions, such as Air Conditioned Shelters/ Containerized Switch Rooms, UPS & Battery Stations, Transformer Skids etc. and has vast references to its credit.

## Mechanical Products



The Mechanical Products Division's portfolio encompasses trading in products covering the broad spectrum of Building Services Industry. From Air-conditioning to Heating, Ventilation, Filtration, Building Management Systems, Piping & Valves, to Air Distribution, the Division represents more than 40 Principals worldwide. A team of Engineers and Executives look after the sales of the Products. The sales team is adequately backed by an excellent service team of Engineers & Technicians (trained at the various principals' factories) to render 24 hours service backup for equipment sold by the Division. A vast inventory of spare parts is maintained both in the company's 40,000 m<sup>2</sup> warehouse and the Parts Showroom attached to the office.

A dedicated Spare Parts Sales Team caters to the spare parts needs of the equipment sold by the Division.

A broad categories of equipment are available in:

- Complete Range of Air-conditioning Equipment
- Pumps for water services and fire protection
- Ventilation Systems
- Building Management Systems and Automatic Controls
- Precision Cooling Units
- Cooling Towers & Plate Heat Exchangers
- Process Heating Systems
- Welding Equipment, Consumable and Accessories
- Heat Pipes and Dehumidification Equipment
- Energy Recovery Systems
- Metering Solutions
- Ozone Generators and Air Quality Enhancement Systems
- Water Coolers
- Noise & Vibration Control Systems
- Pipes, valves and fittings for water services, compressed air, oil & gas and other fluids
- Pre-insulated Piping Systems
- Insulation Material, Adhesives, Vapor Barriers and Accessories
- Ducting Material and Accessories
- Air Distribution Products
- Pre-insulated Ducting
- Compressors and Condensing Units for cold store applications
- HVAC Spare Parts and Accessories





# Power Generation

Universal Engineering Services LLC (UES), is the sole authorised agents for Cummins Power Generation, After Sales Services and Cummins Filtration (Fleet guard Filters). Cummins Power Generation is the leading manufacturer of reciprocating engine based power solutions and has a Global presence.

We commenced our operations in 1977 with supply, turnkey installation and operation & maintenance services of medium to high capacity Diesel Electric Generators, Diesel Engines & Gas Engines.

UES has a dominant and nationwide market presence with an installed population of more than 2500 Diesel Generators/ Diesel Engines of various capacities and applications. Our client list includes all Ministries in Oman, Telecom Companies, OAMC and almost all the oil & gas companies including PDO. Cummins Diesel Electric Generator range varies from 17 KVA to 3500 KVA. Multiple Generators can be installed for higher power requirement.

Our full-fledged Service Workshop & Parts Warehouse are located in Muscat. A strong service team of 80 professionals is available round the clock. We maintain high inventory of capital spares, fast moving spares & consumables to serve our valued customers.

**ISO Accreditation**  
The exclusive Quality Control Programme accredited with ISO 9001-2008 monitors all local activities like delivery, installation, testing & commissioning.



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Universal Engineering Services LLC is the sole authorized distributors for Cummins Filtration Inc. "Fleetguard Filters" in Oman since 1980.

Fleetguard supplies directly to more than 140 Original Equipment Manufacturers worldwide.

Cummins Filtration is a world-leading Manufacturer and supplier of filtration systems and products for heavy-duty applications under its core brand "Fleetguard". Fleetguard has over 10,000 products covering the widest range of Air, Coolant, lube oil, fuel and hydraulic filters in the heavy duty industry, configured as Spin on and Cartridge ranging micron levels from 2 micron to 20 micron having filtering efficiency of 98.7% depending on applications.

Leading manufacturers like Cummins, Caterpillar, Volkswagen, Ford, Dong Feng, Foton, DAF, John Deere, Iveco, Komatsu, Liebherr, Kamaz, Belaz, Scania and others work with Cummins Filtration to develop the protection and advanced solutions required for their New Generation Engines.

Fleetguard engineers monitor manufacturing of all its products to meet or exceed OEM Specifications to ensure the engines get their maximum life.

Fleetguard has 5 Technical centers located in Cookeville, Tennessee; Stoughton, Wisconsin; Quimper, France; Pune, India; Wuhan, China, and 13 manufacturing plants around the world to cater to its markets.

All products benefit from Fleet guard's OEM associations and QS 9000/ ISO 9001/ TS16949 standards.



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- 1 Total 107 MVA Standby Power at Muscat International Airport and Salalah Airport.
- 2 Mobile Power Pack. 1 MW supplied to RAECO. Multiple units were supplied. Each can parallel with utility or any other generator and run on Load Govern mode.
- 3 Digital master Control for complex Multiple utility and generator control.
- 4 6 nos. 2500 kVA, 11 kV generator with automatic load management and with bump less restoration at RGO complex.
- 5 Backup generator with Fire detection and suppression system, thermostatic controlled cooling system and complex utility changeover control with bump less restoration at PDO Mina Al Fahal.



# Elevators, Escalators & Trav-o-lators

Bhawan Engineering Company's Elevators, Escalators & Trav-o-lators Division is the market leader of Oman for over decades in providing sustainable turnkey solutions to the multi-directional (Vertical and Horizontal) transportation requirements. The market leadership is being held by proven track records of timely completion, quality & safety on numerous prestigious and iconic projects of the country, with a dedicated team of management, trained engineers, supervisors and technicians to service the customers swiftly and efficiently to their ultimate satisfaction.

The Division's Vertical & Horizontal transportation range covers Elevators, Escalators, Trav-o-lators, Dumbwaiters, Scissor lifts & Platforms. The division also provide turnkey industrial solution for lifting equipment like overhead cranes and specialized equipment like passenger boarding bridges, cargo handling system and auto-car parking systems.

With the technical expertise from the traffic study, design, installation, commissioning & 24x7 maintenance, the division is richly experienced in catering to a broad category of customers and projects like residential, commercial, infrastructure, industrial, offices, hospitals, hotels, shopping complexes and mixed use developments.

OTIS, the 164 years old brand and the world's largest manufacturer cum service provider of VHT equipment provides innovative products like Gen2 (Flat belt technology) & Regen, which gives unique advantages of lubrication free, green, power saving, LEED friendly features to the clients. Further, the division's unique 24x7 Zoning maintenance ensures less downtime of equipment, giving comfort to the end users.

The exclusive Quality Control Programme accredited with ISO 9001:2015 monitors all activities like concept engineering, delivery, installation, testing & commissioning along with the company's OHSAS 18001:2007 ensuring the health & safety and the ISO 14001:2004 ensuring environment management of their activities.



- 1 Mall of Oman - 38 Elevators, 30 Escalators & 20 Trav-o-lators.
- 2 Oman Across Ages Museum - 13 Elevators.
- 3 Royal Opera House - 13 Elevators & 2 Escalators.
- 4 Omantel HQ - 13 Elevators.
- 5 Salalah Airport - 36 Elevators, 14 Escalators & 8 Boarding Bridges.
- 6 Muscat Grand Mall - 28 Elevators, 10 Escalators & 8 Trav-o-lators.
- 7 Al Mouj (The Wave) Development - Elevators & Trav-o-lators at hotels, apartments & commercial complex.
- 8 National bank of Oman HQ - 11 Elevators & 2 Escalators.



# Chemical & Industrial Products

Chemicals & Industrial Products division specialises in undertaking and delivering diversified contracts with technical, after sales services for various specialty chemicals. We undertake industrial turnaround and cleaning contracts for Oil & Gas & Petrochemical industries comprising of catalyst loading/unloading under normal to inert conditions, industrial high pressure cleaning using state of the art technology.

### Applications:

- Desalination Plants – Antiscalant & Defoamers for (R.O, MVC & MSF).
- Comfort Cooling & Industrial Process Cooling – Prevention of scaling, corrosion and bio fouling.
- Refinery process side additives-Prevention of carry overs in desalters, overhead corrosion, fouling and lubricity improvers.
- Drilling Mud Production Chemicals and associated services.
- Enhanced Oil Recovery Projects.
- Liquid Solid Separation (Waste water plants)

### Industrial Products Applications:

- Oil & Gas Industries : Pumps , Valves and associated fittings
- Desalination Plants – Waste water / Grey water recycling plants.
- Gas Compression for Flare Gas Recovery
- Oil spill control equipment's
- Specialized High Pressure Pumps for sea water intake systems.
- Chemical Dosing Skids and associated pumps and accessories.



Specialty Chemicals



Fire Heaters



Refinery process additives



Beam Pumps for oil production

# BUSINESS UNIT SERVICES

We are committed to help our clients maximise the life cycle & value generation from their assets through our facilities management, periodic maintenance, troubleshooting, upgrades, refurbishments and aftercare services.

Our commitment to self-deliver services allows us greater control over the quality of service delivery, flexibility and ability to maximize efficiency by reducing overall operating cost and at the same time displaying high practice of safety standards.



FACILITIES MANAGEMENT



INDUSTRIAL MAINTENANCE



GENERATOR & AUXILIARY MAINTENANCE



ELEVATOR / ESCALATOR / TRAV-O-LATOR MAINTENANCE



DIESEL POWER GENERATORS HIRE



# Facilities Management

Facilities Management & Maintenance Division (FMMD) is a strategic arm providing integrated solutions in the following areas for over three decades:

- Airports
- Hospitals
- Office & Commercial Complexes
- Sports Complexes
- Educational Institutions
- Residential Complexes
- Industrial Facilities

## Key Management Tools

- Committed to Total Quality Management and highest HSE standards.
- CMP - Our Contract Management Plan embraces the latest management system to ensure all contract requirements.
- CRM - Effective Contract Review Meetings
- Innovative and effective asset management solutions.
- CMMS - Computerised Maintenance Management System.
- Committed to ICV - Incountry Value.

## Facilities Management approach:

- 24 x 7 call out support
- Planned preventive maintenance
- Reactive & corrective maintenance
- Predictive maintenance
- Asset management.

## Hard FM Services:

- HVAC
- Electrical Installations – MV & LV
- BMS
- Plumbing Installations
- Fire Fighting & Alarm Systems
- UPS Systems
- General Infrastructure
- Building Fabric
- Boilers
- Laundry & Kitchen Equipment
- Water & Waste Water Treatment Plants
- Sewage Treatment Plants
- Gas Turbine & Balance of Plant for Power stations
- Solar Plants & Associated Sub-stations
- Civil Infrastructure
- Elevators & Escalators.

## Soft FM Services:

- Help Desk
- Cleaning & Housekeeping
- Landscaping Services
- Sewage Disposal
- Concierge
- Catering
- Furniture Movement.

## Refurbishment / Specialist Services:

- Annual Turnaround Works for Industries, Power Plants
- Replacement / Refurbishment of HVAC Equipment
- Replacement of Piping & Ductwork
- Energy Saving
- Replacement of Electrical Switchgear, Transformer, Diesel Generator etc.
- Duct Cleaning & Remediation.



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- 1 Facility Maintenance of Oman Convention & Exhibition Centre.
- 2 Facility Maintenance of Royal Opera House Muscat, Oman.
- 3 Facilities Maintenance of Sultan Qaboos Grand Mosque, Oman.
- 4 Facilities Maintenance of Salalah Airport.
- 5 Operation & Maintenance of District Cooling Plant of Total 7,500 TR capacity at Muscat Grand Mall, Tilal Complex, Bausher, Oman.
- 6 Facilities Maintenance of Knowledge Oasis Muscat.





## Facilities Management

- 7 Facilities Maintenance of 136 Villa Complex with Recreation Centre, Mosque, Shopping Arcade & School at Sur, Oman.
- 8 Facilities Maintenance of Al Hail Township, Oman.
- 9 Facilities Maintenance of Bank Muscat Headquarters at Airport Heights, Oman.



- 1 General Maintenance services at Oman-India Fertiliser Company at Sur, Oman.
- 2 Facilities Maintenance of Balance of Plant for Salah Power Plant and technical support during LTSA.
- 3 General maintenance services at Jindal Shadeed Iron & Steel Plant, Sohar.



## Industrial Maintenance

BEC Facilities Management & Maintenance Division is specialized in delivering core hard services in Industrial Maintenance. These include maintenance of Fertilizer Plants, Refineries, Petro-chemical Plants, Power Plants, Process Industries, Industrial Boilers, Incinerators and Water & Waste Water Treatment Plants.

We also specialize in turn around works for the above mentioned Plants for both static & rotating equipment.

We ensure compliance with organization regulations and help our client to achieve set objectives cost effectively with minimal disruption to our clients business.

### Our plant maintenance capabilities include:

- Project Management
- Preventive and Predictive Maintenance
- Inventory Control
- Subcontractor Management
- Instrumentation and Controls
- Electrical Services
- Rigging
- Scaffolding, Industrial Painting & Insulation
- Piping & Fabrications
- Turnaround Works





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## Industrial Maintenance

- 4 General maintenance services at Qalhat LNG Plant, Oman.
- 5 Operation & Maintenance of 1200 X 2 nos. Reverse Osmosis Plant at Wudam Naval Base, Oman.



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## Generator & Auxiliary Maintenance

The Generator & Auxiliary Maintenance Division carries out scheduled maintenance and calibration of Generator auxiliaries whether "Essential" - like water pump, fuel pump, lube oil pump etc. or "Non-Essential" auxiliaries like anti condensation heaters, jacket water heaters etc.

### Services include:

- Health Check Programs
- Annual Maintenance Contracts
- Component Servicing
- Injector and Fuel Pump Calibration Work
- Breakdown Service
- Minor and Major Overhauls
- Rewinding & overhauling of motors & alternators

## Elevator / Escalator / Trav-o-lator Maintenance

The Division Maintains Elevators, Escalators, Trav-o-lators, Overhead Cranes & Dumb-waiters, totaling more than 3,700 units in various prestigious places such as Airports, Banks, Commercial & residential buildings, Embassy, Industrial buildings, Hotels, Hospitals, Office complexes, Shopping malls, and Villas, with focused customer satisfaction.

Principal Trained Engineers & Technicians are available without interruption to handle customer needs instantly. The division maintains a large inventory of critical spares in the warehouse to ensure optimum availability to the customers.

### Highlights of their service regime are:

- ISO 9001 : 2015 certified operations
- Manufacturer recommended computerized scientific preventive programmed maintenance
- Branch operations in major cities to handle wide geographical spread of equipments
- 24X7 Call out / Emergency services
- Offering Repair / Modernization to optimize equipment's life



## Diesel Power Generators Hire

The Universal Engineering Services hire division offers Diesel Power Generators, for short term and long term requirements, for construction, oil & gas industry, stand-by segment and other utility needs.

### Highlights

- Range from 20 kVA-1000 kVA
- All Gensets from world renowned brand - Cummins
- Acoustically housed Gensets suitable for 55° C ambient temperature operation.
- Availability of Bulk Diesel tanks, and accessories like Distribution boards, Power cables.
- Qualified Service technicians for Genset backup.
- 24 X 7 Callout Service
- Separate Service teams based in Sohar, Muscat, Salalah



## Chemical Manufacturing

BEC Group has ventured into manufacturing with the launch of Suhail Chemical Industries LLC (SCI) in the year 2000. SCI is the first fully-dedicated sulphuric acid plant in the Sultanate of Oman.

SCI boasts of a state-of-the-art manufacturing facility in the Sohar Industrial Area that can produce 40/TPD of pure sulphuric acid. Applying Double Conversion Double Absorption [DCDA] technology, the plant produces best quality Technical Grade and Battery Grade sulphuric acid, in a glass plant with negligible iron content, that are exported to GCC countries and Africa apart from catering to the local market requirements.

SCI also trade in industrial chemicals such as granular sulphur, hydrochloric acid, laboratory chemicals and lab-ware items. SCI has implemented stringent quality control measures, including monitoring of the effluents, to ensure that the entire operation is environment-friendly.

SCI has been awarded the coveted ISO 9001-2008 certification in the year 2012. The ISO certification was awarded by Velosi Quality Management International LLC (Applus) after inspecting and testing SCI's robust quality management system and operations from design to delivery on various parameters and specifications.

## Suhail Chemical Industries



## Investments



## Other Interests

BEC Group through its investment arm takes special interest in the development of the country's infrastructure projects. The Group has been at the forefront of the privatization process of the Power and Water sector in Oman through equity participation in independent power and water projects.

BEC Group along with world-class consortium partners has promoted and developed state-of-the-art Power projects including solar power pilot project and has participated in the first private desalination plant in the coastal city of Sur, among others.

### Major investments in this sector are:

- ACWA Barka SAOG (Barka 1 IWPP) – 456 MW power plant and 30 MIGD desalination plant (since sold)
- Al Suwadi Power Co. SAOG (Barka 3 IPP) - 750 MW power plant (since transferred)
- Al Batinah Power Co. SAOG (Sohar 2 IPP) - 750 MW power plant. (since transferred)
- Phoenix Power Co. SAOG (Sur IPP) - 2,000 MW power plant.
- Phoenix Operation & Maintenance Co. LLC (Sur IPP) – Operation and maintenance of 2,000 MW power plant.
- Bahwan Veolia Water LLC (Sur IWP) - Operation and maintenance of 29 MIGD desalination water plant.
- Bahwan Astonfield Solar Power LLC - 303 kW power plant.



# OUR COMMITMENT



## HEALTH, SAFETY & ENVIRONMENT

We at BEC, envision a safety culture to achieve an injury free workplace, to facilitate and empower employees to make continuous improvement aiming to establish us as the industry leader in Healthy, Safety and Environment. This will create value to our employees, clients and society at large and enhance overall business process.

The company has a well-established HSE policy, emphasizing "HSE is everyone's responsibility and part of the corporate philosophy. The Senior Management provides strong, visible HSE leadership & commitment and ensures that this commitment is translated into the necessary recourses to develop, operate and maintain the company's HSE MS, HSE Plan and procedures to attain HSE policy objectives.

BEC Group's HSE management system is accredited with OHSAS 18001 & ISO 14001 certificates and is based on the Total Quality management (TQM) principle emphasizing on continuous improvement and integrating HSE aspects in every business endeavour with a proactive approach.

The corporate HSE department employs more than 175 qualified, trained & experienced expatriate and national (Omani) HSE staff, responsible to ensure compliance monitoring and review all aspects of HSE covering entire organizational activities.

In addition, BEC Group has established a dedicated Road Safety division at corporate level to monitor & review company wide driving activities. With this proactive approach, we have successfully completed most of the projects with ZERO LTI and strive to achieve incident and injury free workplace exacting to international standards.

### Some of BEC Group's ZERO LTI achievements:

- 15 Million LTI free man-hours at LNG Projects
- 13 Million LTI free man-hours at Saih Rawl Project of PDO
- 10 Million LTI free man-hours at Muscat International Airport Project MC-3
- 10 Million LTI free man-hours at Petroleum Development Oman (PDO)
- 12 Million LTI free man-hours at Sohar Refinery Improvement Project (SRIP)
- 7 Million LTI free man-hours at Carbon black delayed Coker (CBDC) project at Abu Dhabi
- 5 Million LTI free man-hours at Al Masarra Hospital project, Amerat.



## QUALITY

**ISO 9000 CERTIFICATION** - BEC is the first company in its category to achieve ISO 9000 certification for Project management, Engineering, Construction, Facilities Management, Product Sales & Services associated with Oil & Gas, Power, Industrial, Chemicals, Buildings and Infra projects. BEC has well documented 'Quality Management system' in line with ISO 9001.

**ASME CERTIFICATIONS** - BEC is authorized, by American Society of Mechanical Engineers (ASME), to use Code Stamp 'A' - for Assembly of Power Boiler at Field sites and Code Stamp 'PP' for Fabrication and Assembly of Pressure Piping at Field sites. BEC is also authorized by The national Board of Boiler & Pressure Vessel Inspectors (NBBI) to use Code Stamp 'R' - for Metallic Repairs And / or Alterations at Field sites. The company has excellent Quality performance track record as one of the best Quality contractors in Oman.

### We do this by executing a formal quality program designed to ensure we:

- Provide customers with high quality installations and services which meet requirements and are fit for their purpose.
- Enhance the skills of employees through reviews and providing suitable training, the objective of which is to prepare employees to perform their work more effectively.
- Promote the culture of continual quality improvements and the philosophy of getting things "right first time".
- Rigorously control the supply, installation and completion programme of all projects.
- Promote the quality management systems and ensure implementation is achieved by internal auditing, management review, corrective and preventive action and implementation of KPIs.

## SUSTAINABILITY

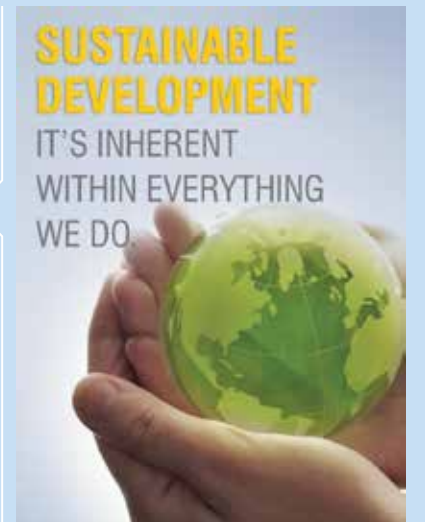
At BEC Group, sustainable development is inherent within everything we do. We apply good practices on each of our projects, in co-operation with our clients & brand partners, and sustainable development is integral to our work. We apply the principles of sustainable development throughout the supply chain and across all the phases of the project life cycle.

### Solar & Wind Energy

BEC Group has been involved in helping clients with environmentally sustainable projects and products for many years. We have been the pioneer in solar energy initiatives in Oman. We have invested in and developed Oman's first and only PV Solar Plant feeding power to a public grid. We are working on various other opportunities to exploit the nation's abundant Solar Irradiance, aimed at conservation of depleting fossil energy resources. BEC Group is also working closely with international contractors to develop country's Wind Energy potential.

### Green Partnerships

Our Brand partners like Carrier, OTIS, Cummins etc. are some of the world leaders in Green initiative and support our vision of a greener world through their products such as Carrier Evergreen Chillers, Armstrong Design Envelope Pumps, Cummins Low Emission Engines and OTIS Gen2 Regen Elevators.







## BAHWAN ENGINEERING GROUP



Bahwan Engineering  
Company LLC



Bahwan Contracting  
Company LLC



Universal Engineering  
Services LLC

MULTITECH



Muscat District Cooling  
Company LLC



Suhail Chemical  
Industries LLC



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Bahwan  
Holding



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