

# نُبذة تعريفية عن شركة الداو

[www.aldhow-kw.com](http://www.aldhow-kw.com)

AL-DHOW  
CORPORATE  
PROFILE

حلول بيئية فريدة ومتكاملة  
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**AL-DHOW**  
FOR ENVIRONMENTAL PROJECTS (K.S.C.C)



**الداو**  
للمشاريع البيئية (ش.م.ك.ع.)

**AL-DHOW**  
FOR ENVIRONMENTAL PROJECTS (K.S.C.C)



**الذواو**  
للمشاريع البيئية (ش.م.ك.ع.)

UNIQUE INTEGRATED ECO SOLUTIONS حلول بيئية فريدة ومتكاملة



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## EVERY SUCCESS STORY HAS A UNIQUE BEGINNING

At Al Dhow, our story began in 2006 when we set out to be a pioneer in groundbreaking scientific and engineering developments in environmental solutions. Today, we've emerged as a national engineering, consulting and construction management firm providing unique integrated services to the power, environmental, infrastructure and oil and gas markets.

As one of the regions leading environmental engineering and sustainability companies, we serve a wide range of clients in the government and industry and work closely with them to provide innovative, affordable solutions that reduce on-site capital and operating expenses, due to inefficient resource use, such as offering green and sustainable engineering projects, certifications, regulatory compliance and clean energy consulting. We deliver improved efficiencies while reducing cost and risk by optimizing the use of energy, water and other resources, while minimizing waste and harnessing available financial incentives for sustainable products.

In a growingly seamless world, we derive our strength and capability from a unique blending of cultures, work ethic, intellect and education. Today, we are a 24/7 enterprise, with a goal to remain the gold standard within the natural resource sector - where science, engineering and construction are only part of what we do.

As a fully integrated organization, our people are aligned with the critical needs of a fast-changing planet. Our global platform allows us to move the best technologies around the world to the point of need for our clients, no matter where they are.



ENVIRONMENT  
AND SUSTAINABILITY



# OUR UNIQUE SUSTAINABILITY PHILOSOPHY

“Right for the planet, right for the bottom line.”

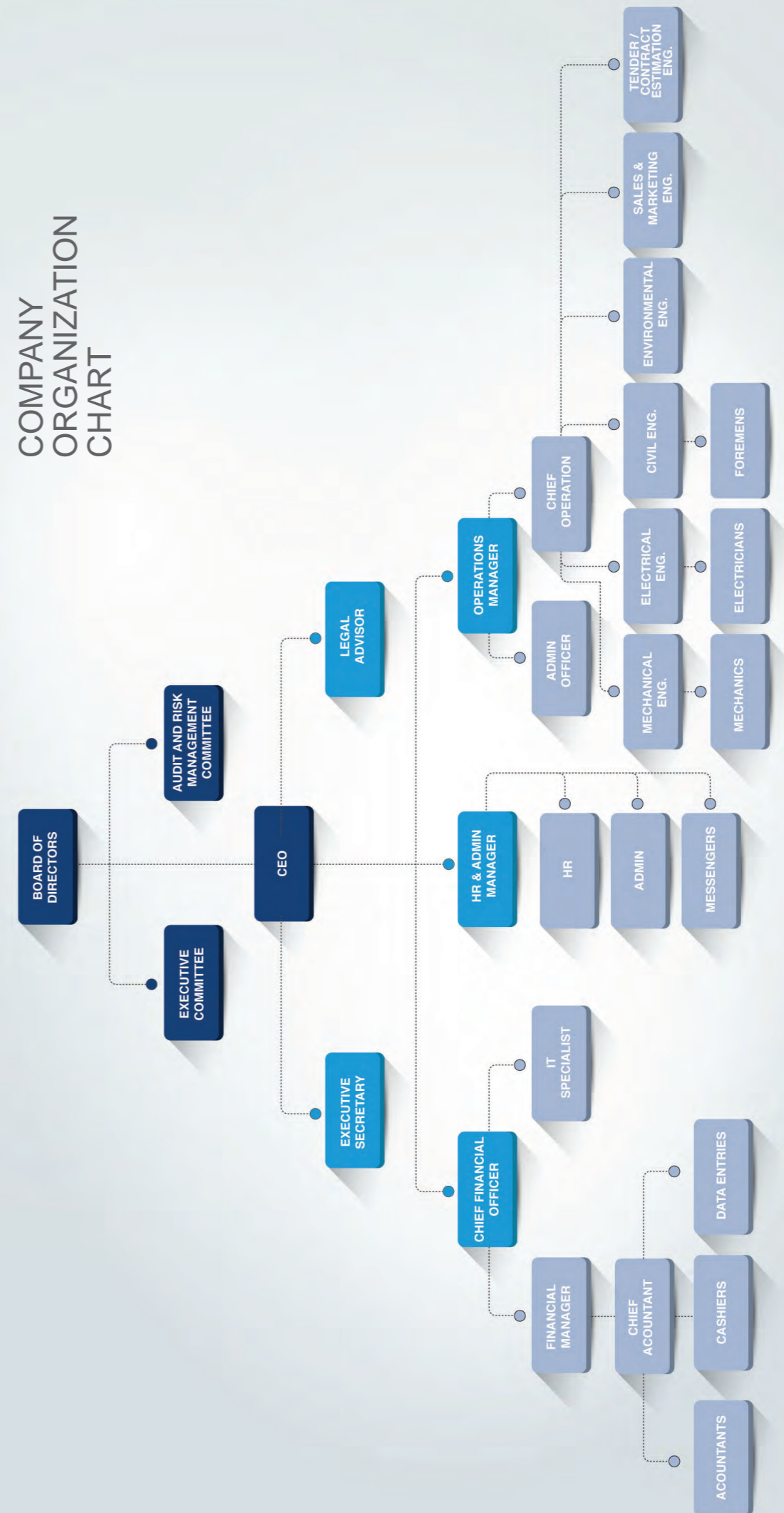
At Al Dhow, sustainability is a fundamental principle that drives our business. We are energized by these opportunities to make planet Earth a better place, and our commitment to this goal gives purpose to the work we do every day.

We provide innovative, affordable and sustainable solutions that reduce costs through more efficient use of resources and pave the way for future generations to meet their own needs. Our water, clean energy and sustainable solutions experts are at the forefront of environmental best practices with decades of experience in some of the world’s most complex and technologically advanced environmental projects addressing the environmental pressures of resource scarcity, population growth and climate change. Our wide range of innovative solutions include:

- Complying with stringent and demanding regulations, while maintaining profitability, reputation and brand
- Employing the latest industry research and technological advances
- Setting overall strategic directions and aligning supporting sustainable initiatives
- Measuring and reducing carbon and water footprints, improving efficiency, and reducing cost and risk
- Optimizing the use of energy, water and other valuable resources while minimizing waste
- Increasing competitive advantage through tactical development of environmentally, socially and economically sound processes, supported by innovative resource management.

Our integrated approach to solutions is focused on balancing economic growth, social responsibility and environmental stewardship through the entire project life cycle, all aimed at continually creating value for our clients. We collaborate with clients to design solutions with tangible and quantifiable results that often provide ongoing benefits, long after a project’s completion. Through our continuing commitment to develop top talent, deepening our understanding of our clients’ needs, and delivering sustainable solutions to the communities in which we live and work, we are tackling some of the most pressing energy, environmental, and infrastructure challenges the world faces.

## COMPANY ORGANIZATION CHART





## OUR MISSION

To design unique integrated eco solutions, applying creativity, experience, integrity and dedication to deliver superior measurable values to all stakeholders.

## OUR VISION

Enhancing the quality of life through eco solutions and solving challenges.

## OUR VALUES

### Safety

We create a working environment that promotes safe performance.

### Quality

We always strive for excellence in the services we provide and in the results we produce for our clients.

### Integrity

We are committed to the highest ethical standards.

### Creativity

We believe in looking at challenges and opportunities from new angles and in exercising our curiosity.

### Accountability

We take responsibility for all of our decisions and actions.

### Teamwork

We work together to achieve successfully our goals and objectives efficiently and effectively

### Passion

We deliver superior results because we care deeply about what we do.

## WHAT MAKES US UNIQUE

At Al Dhow, we owe our uniqueness to our inherent strengths that include:


- Differentiating technologies to create optimal solutions to customer with regard to CAPEX, OPEX, Footprint and CO emissions
- Setting strategies and plans to address environmental needs
- Resolving environmental issues & advancing quality of life
- Process design expertise and leading edge understanding and adoption of state-of-the-art and enhanced power, environmental and sustainability technologies
- Flexibility in the fulfillment of tailored and complex customer requirements
- Experienced in EPC contracting in regional geographical markets
- Ability to provide our clients with financing and BOO/BOT solutions
- Strong backbone in project engineering, construction and management
- Reliable life cycle service according to each customer's unique needs

## WE PROVIDE UNIQUE SERVICES IN ALL PHASES OF YOUR PROJECT

Our services cover the full project cycle from project strategy, identification, feasibility studies, preliminary and final design, evaluation, construction, to commissioning and operation.

Our professional staff, utilizing extensive design/build experience, provides turnkey environmental solutions that will meet all your design criteria, budget, and schedule and performance requirements.

We also offer expertise in associated fields such as geotechnical and hydrogeological investigations, socio-economic and environmental studies, institutional strengthening and advisory services for utilities, green design and sustainable construction, climate change mitigation and adaptation.



## ENVIRONMENTAL CONSULTANCIES

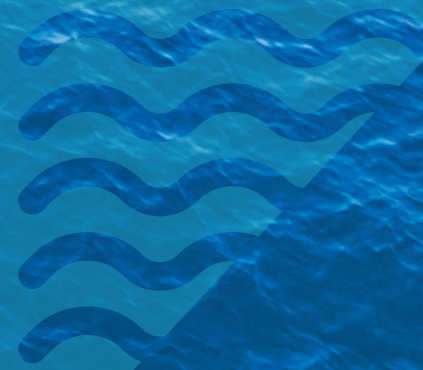
Al Dhow has the experience available to undertake the full spectrum of environmental studies. Our scientists, engineers and specialist are capable of delivering studies and results. We have adequate knowledge and professional experience of the local and international standards through our background experiences.



## CONSULTATION SERVICES

- Environmental Baseline Studies (EBS)
- Environmental Impact Assessment (EIA)
- Environmental Management Plan (EMP)
- Environmental Risk Assessment
- Environmental Monitoring and Compliance
- Site Assessment, Remediation and Rehabilitation
- Health, Safety and Environmental (HSE) services
- Waste Management (Non-Hazardous, Hazardous and Clinical)
- Coastal Zone Management (CZM)
- Marine Studies
- Dredging Management Plan (DMP)
- Environmental Modeling
- Studies on Alternatives
- Application of GIS and Remote Sensing
- Conservation of Energy
- Clean Development Mechanism (CDM)

WATER & WASTEWATER  
ENGINEERING



## MUNICIPAL WASTEWATER ENGINEERING & RECYCLING

From conceptualization to implementation and recycling applications, we provide services to develop, improve, and maintain municipal sewage water, gray water, black water and storm water systems, including planning, design, permitting, construction, installation, commissioning, operation and maintenance. Our staff has the training and experience to develop reliable, cost effective, and environmentally sound systems that will continue to meet increasingly stringent regulatory requirements.



We offer cost-effective solutions, which meet our clients' specific needs.

### Our diverse services include:

- Complying with stringent and demanding regulations, while maintaining profitability, reputation and brand
- Source characterization
- Feasibility and treatability studies
- Conceptual and preliminary engineering
- Permitting and regulatory negotiation
- Design and construction management
- Construction, Installation and Commissioning
- Operation and maintenance
- Management plans and pollution prevention plans
- Permit compliance and treatment system closures

## Technology and Treatment Processes

### Preliminary Physical Treatment

- Coarse screening
- Fine screening
- Grit separator
- Oil and grease separator
- Primary sedimentation

### Secondary Treatment Processes

- Activated Sludge Process (ASP)
- Extended Aeration (EA)
- Moving Bed Bio-Reactor (MBBR)
- Sequential Batch Reactors (SBR)
- Membrane Bio Reactors (MBR)
- Rotating Biological Contactor (RBC)

### Tertiary Treatment Processes

- Pressure multimedia filters
- Activated carbon filters
- Micro disc filter
- Ultrafiltration " UF" system
- Chlorine disinfection
- UV disinfection
- Ozone disinfection



### Sludge Dewatering Processes

- Belt press
- Decanter centrifuge
- Plate and frame pressure filter press
- Sludge drying bed



# INDUSTRIAL WASTEWATER ENGINEERING & RECYCLING

Industrial waste water contains a diversity of impurities and therefore its treatment requires specific customized solutions. At Al Dhow, we provide a high-performance custom treatment solution for all variety of waste water types and industries, meeting your objective to achieve the emission limits for industrial effluent that is constantly being tightened up. For closed circuits and product recovery in various production processes, we provide environmentally efficient and sustainable treatment methods for effluent systems; besides, we also have expertise in water reuse systems and zero liquid discharge.

One of our strengths is that we bring to the field the most experienced technical sales and support team among water treatment companies in the region.



Our unique industrial waste water treatment processes is used by the following industries:

- Metals
- Oil and gas
- Automotive
- Food and beverage
- Mining
- Steel manufacturing
- Pulp and paper processing
- Slaughter housing
- Meat processing
- Glass
- Chemical
- Pharmaceutical
- Petrochemicals
- Textiles
- Plastics
- Aggregates and construction

Our long-term experience in the industrial waste water treatment sector is advantageously employed for the technical and economic optimization of every subsequent facility. The treatment process contains:

- Preliminary and screening
- Flow equalization
- Physical chemical treatment
- Biological (anaerobic and aerobic) treatment process
- Filtration and disinfection process
- Sludge treatment and dewatering



## Performance and Discharge Guarantee

Our industrial waste water treatment plant is designed for high performance and guaranteed treated water discharge quality according to the country's local regulations:

- Surface Sea water discharge standards
- Public sewer discharge standards
- Irrigation water standards
- Customer needs and recycling

## Technology and treatment processes

Screening Process

- Coarse screening
- Fine screening

## Physicochemical Process

- Induced gas flotation
- Micro bubble floatation
- Dissolved air floatation
- Coagulation flocculation precipitation
- Oil and grease separator
- Floating oil skimmers
- Lamella separator

## Anaerobic Biological Process

- Low rate anaerobic digester
- Up flow anaerobic sludge blanket
- Hybrid Digester
- Continuous stirred tank reactor

## Aerobic Biological Process

- Activated sludge process (ASP)
- Extended aeration (EA)
- Moving bed bio-reactor (MBBR)
- Integrated fixed film activated sludge (IFAS)
- Sequential batch reactors (SBR)
- Membrane bio reactors (MBR)

## Tertiary Treatment Process

- Pressure sand filters
- Activated carbon filters
- Iron removal filters
- Ion exchange process
- Metal removal
- Reverse osmosis
- Chlorine disinfection
- Ozone disinfection

## Sludge Dewatering Process

- Pressure filter press
- Belt press
- Decanter centrifuge
- Sludge dewatering container
- Sludge dewatering bags

The unique advantages of our industrial waste water treatment plants:

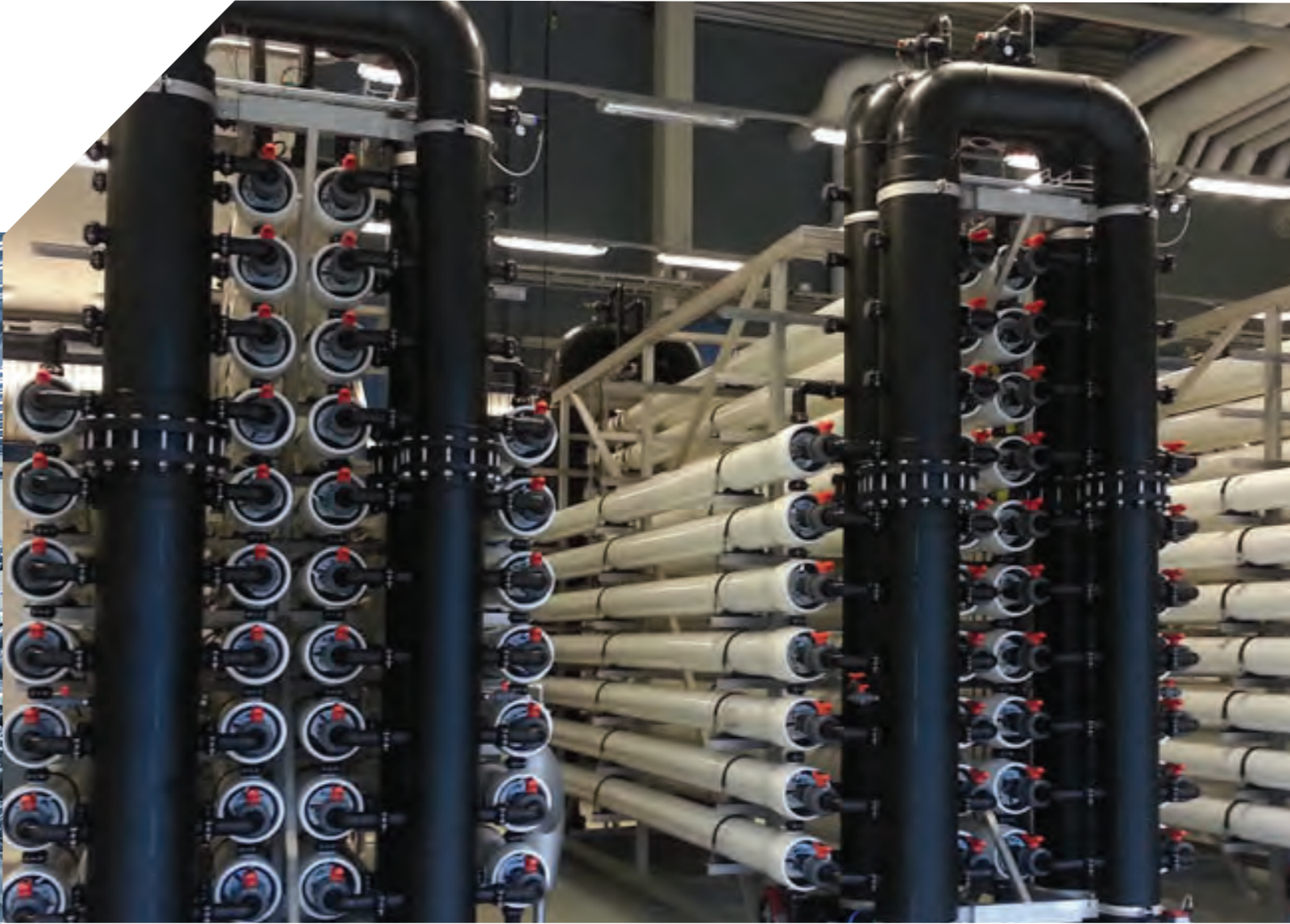
- High biological adaptation
- Effective and energy-saving process
- Small footprint
- Easy construction and installation even on intermediate ceilings
- High flexibility at fluctuating wastewater loads
- Fast installation
- Low maintenance
- Fully automated process control
- Compatible with all classic processes

# WATER DESALINATION ENGINEERING

During the past decade, membrane technologies have gained momentum in the water treatment segment and are justifiably regarded as the technology of the future. This is easy to understand as they guarantee efficient and environment-friendly purification with a minimal use of chemicals.

At Al Dhow, we are working to optimize the performance of our clients' desalination processes, both in terms of their environmental impact and energy use.

Our membrane-based desalination solutions are helping fast-growing cities and industries in water-scarce regions to meet their water needs and develop a stable, sustainable water supply for the future.



## Types of Water for Desalination

- Brackish water
- High brackish water • Seawater
- River water
- Treated waste water

## Proven Technologies

- Micro filtration (MF)
- Ultra filtration (UF)
- Nano filtration (NF)
- Reverse osmosis (RO)
- Electro ionization (EDI)
- Electro dialysis reversal (EDR)

## Applications

- Brackish water
- Sea water
- Drinking water
- Surface water
- Food & beverages
- Boiler feed water
- Landfill leachate water
- Oil & gas
- Process water
- Treated waste water
- Ultra pure water
- Dialysis water

## Unique Advantages

- Fast track project realization & limited on-site work
- Compact footprint, reducing and simplifying civil works
- Worldwide solution reference base
- Reliable technologies, components and materials
- Economical, based on lowest possible total cost of ownership
- Sustainable treatment based on state-of-the-art technologies
- Fit for future requirements: modular and transportable

RENEWABLE ENERGIES  
ENGINEERING



## RENEWABLE ENERGIES ENGINEERING

We provide full lifecycle support for renewable power generators, besides also offering comprehensive solutions from permitting to construction support, environmental operations and maintenance. Our in-depth industry knowledge and experience enables our clients to complete projects exceeding expectations, and maintain a safe, reliable service.

We work with developers, utilities and government agencies to provide efficient, cost-effective support on large and small commercial-scale solar, wind and waste to energy projects including Engineering, procurement and construction, Plant technology integration, Program management, Construction and installation services, Commissioning services, Operations and maintenance.

### AI Dhow Renewable Energies Services and Solutions

#### Project Development Services

- Site identification and selection
- Site assessment and optimization
- Feasibility studies
- Energy yield studies
- Land acquisition and lease
- Planning and permitting procedures
- Environmental permits
- Electricity grid
- Project management

**AI Dhow is trustworthy partner in renewable energies projects development. We specialize in providing best solutions with different demands of customers under insuring the quality.**

#### Project EPC Services

- Engineering, design and technology selection
- Procurement of equipment
- Project management
- Turnkey construction and installation projects
- Performance test
- Plant operation and commissioning

AI Dhow team has the knowledge to plan and execute projects with the highest level of certification. In-house engineers with civil, electrical and mechanical expertise are planning and designing an efficient and professional system. Therefore, we are confidence to give projects a high-customized efficiency promises.

#### Project O&M Services

- Real-time corrective maintenance
- Preventive maintenance
- Continuous plant optimization, maintenance and repairs
- Real-time, online performance monitoring
- Information management and reporting



Al Dhow has the capability to manage and operate all installed projects, including monitoring, maintenance and providing 24/7 protection with a strong focus on highest energy output. Our O&M team is remotely controls the system via services center with daily exchange to the local operations and maintenance team on site.

#### Project Financing Services

- Profit evaluation
- Set up of legal entities (SPV's)
- Pre-financing
- Structuring of debt and equity
- Tax and insurance planning
- Prepare, audit and negotiate contracts
- Project placement as a single project or portfolio to financial or strategic investors
- Insurance concept

Al Dhow can provide a variety of financing options and customized products according to different needs. Constructing projects requires a variety of investment and financing skill and use financial leverage to maximize the interests of the investors, financiers, owners and other units to achieve the project benefits.

## Applications

- Frequency regulation & grid services
- Micro grids, telecommunications & remote diesel
- Renewable integration & weak grids
- Multipurpose
- Commercial & residential

## Industries and Markets

- Utilities
- Energy generation
- Transmission and distribution
- Project integration
- Renewable developers
- Renewable integrators & installers
- Telecommunications
- Data centers
- Mining, oil & gas

## PHOTOVOLTAIC "PV" SOLAR SYSTEMS



## Our Unique Solutions

- Solar PV ground fixing/tracking mounted systems
- Solar PV rooftop mounted systems
- Solar PV building façade mounted systems
- Solar PV car parking mounted systems
- Hybrid energy solutions
- Street solar light
- Solar road

## Markets

- Commercial Sector
- Residential Sector
- Utility Sector



## WIND MILL SYSTEM

### Our Unique Services for Wind Turbine Power Plant

- Criteria for selection of wind farm site
- Criteria for wind farm size selection
- Basis of designing for a Wind Farm
- Life cycle equipment
- Method and procedures of wind farm installation
- Operation of a wind farm
- Operation cost of a wind farm
- Maintenance cost of a wind farm
- Limitation of wind farms

### Our Wind Turbine Power Solutions are ideal for:

- Agriculture farms
- Telecoms towers
- Offshore sites
- Land and state owners
- Industrial business
- Ports
- Logistics
- Utilities



# BIOGAS POWER SYSTEM

Our biogas plant with sustainable anaerobic solutions turns the waste (liquid and solids) to values. Anaerobic treatment systems are based on a biological process operated and controlled under anaerobic conditions that effectively treats COD, BOD and VSS into very little new biomass and biogas (and energy product).

- Breweries, distilleries and wineries
- Soft drink and beverage producers
- Convenience and food processing
- Potato and crisps processing
- Dairy processing
- Edible oil processing
- Fish, meat and poultry processing
- Agricultural waste
- Manure

## Our Biogas Plant consists of the following steps:

- 1- Raw material storage
- 2- Digester feeding systems
- 3- Digester and optional post digester
- 4- Digestate
- 5- Combined Power and Heat (CHP) unit
- 6- Electricity power supply
- 7- Upgrading of biogas to natural gas



## Our Unique Advantages and Characteristics

- Energy in a biogas plant is carbon neutral
- Biogas and energy can be produced 24/7
- Closed systems, low environmental smells
- Low dependence on energy from the public net and import from other countries
- Energy generation is not directly depending on wind, water and sun conditions
- Biogas can be stored
- Fertilizer value of manure is improved by the biogas process

## Customer Unique Benefits

- Turn a (waste) water treatment plant into a power generator
- Convert wastewater and/or organic wastes into energy
- Low OPEX costs
- High removal rates of BOD and VSS greatly reducing surcharge costs
- Highly adaptable to local requirements and conditions
- Reduced overall sludge production cost because of additional separation technologies

## WIND MILL SYSTEM WASTE-TO-ENERGY SYSTEMS

We believe that cities with advanced waste management systems are the sustainable cities of the future.

Waste-to-Energy plants are ideally suited to be used in installations for the thermal treatment of all kinds of municipal and industrial solid waste as well as for the combustion of biofuel. It is a modular concept for various waste compositions and calorific values.



At Al Dhow, we offer services for waste-to-energy and waste management projects throughout the value chain from collection and pre-treatment to clean and efficient energy generation. We have state-of-the-art combustion systems, with all kinds of pre-treatment and combustion technologies including grate, fluidized bed, circulating fluidized bed, rotary kiln, gasification/methanisation, pyrolysis and related air pollution control schemes.

### Our 360 know-how in waste-to-energy and waste management includes:

- Waste logistics (collection, transportation, storage, handling)
- Waste pre-treatment (mechanical treatment, biological treatment, including composting and methanisation)
- Thermal processing (combustion system, boiler design, energy recovery, flue gas cleaning)
- Waste post-treatment (residue treatment, landfilling, landfill rehabilitation)

### Our Waste-to-Energy conversion process consists of the following key steps:

- Sterilize the incoming waste
- Automatically remove the recyclable materials
- Dry the remaining material to produce the feedstock
- Feedstock in a non-burn process to produce a high calorific value
- Clean the syngas and send to engines
- Generate clean electricity using gas engines
- Clean the exhaust from the engine

## Types of Feedstock

Our Waste-to-Energy plants can process any type of waste that has a calorific value including:

- Municipal solid waste (MSW)
- Commercial & industrial waste
- Hospital waste
- Wood waste
- Abattoir waste
- Toxic waste (excluding nuclear)
- Agricultural and animal waste
- Sewage sludge and cake
- Oil sludge and contaminated oil
- Tires



## POWER STORAGE SYSTEMS

We believe energy storage is now a prime determinant of how quickly society can shift from its dependency on fossil fuels to more effective use of renewable resources.

We deliver battery energy storage solutions that improve energy reliability and efficiency. Our energy storage systems manage the variability of renewable energy, smooth power and shift energy in a safe, reliable and simple way.

Our solutions comprise of new class of advanced lead-acid battery technology.

CONSTRUCTION  
WASTE MANAGEMENT  
& RECYCLING



## CONSTRUCTION, DEMOLITION WASTE & RECYCLING

Al Dhow have vast experience in construction waste management and recycling by using the latest international techniques under the supervision of professional team specialized in the field of recycling the construction waste to maintain the best development. The outcome of the recycling is considered as a local product approved from all relative government authorities.



Al Dhow have approved a developed aims and strategy, and integrated solutions for the projects of the construction waste control. This effort will preserve the environment and take advantage of the recyclable materials to enhance the industrial projects, as well as opening new prospects of economic. This strategy includes many factors, which can be applied for finding the integrated solutions for removing the waste in cooperating with governmental sector.



## Technology and Solution

- Segregation of construction demolition waste
- Crushing
- Manual picking station
- Blower system for non-concrete material
- Screening
- Storage

## Our Unique Services

- Managing and executing projects for treating the Construction Demolition Waste and using it as the primary material in other industries
- Provide managing and transport of the construction waste
- Producing and marketing of the environmental products with different sizes of recycled aggregates (5 mm - 50 mm)

## Environment Advantages:

Al Dhow is design and supply unique plants for construction demolition waste recycling, which contain vacuum system for the dusts. This vacuum system does not allow any leakage of dusts during the crusher process, which keep the environment clean.

## Application and Business Market

- Construction of roads, foundation layers
- Construction of desert roads for easy drive of vehicles
- A layer of insulation prevents the penetration of water as the upper surface layer of the soil
- Construction a spread layer for pipes
- Concrete mixes at allowable percentage
- Surveyor for wall and mosaic tile industry
- Backfilling and wrapping of pipes
- Asphalt mixing
- Recycling the metal in specialize factories
- Asphalt structure roads, and the ready asphalt mixing rate at allowable percentage

## Mining and Blasting Operations and Management

Al Dhow for Environmental projects is one of the largest companies in the lime stone crushing field operation and management. Our Crusher is located in the east coast of UAE; we provide a wide range of services and products of high quality limestone aggregate which is amounting 3.5 million tons per year. We ensure high quality products and swift services delivered to your doorstep.

We are using our own civil drilling and blasting company (Industrial Rock Engineering IRE) to make necessary operation (drilling and blasting) to produce raw material from the quarry to our crushing plants.

- **Our products are considered the high-grade minerals available in the market**
- **Our products are tested and certified by UAE laboratories**
- **We produced different sizes of limestone aggregates**

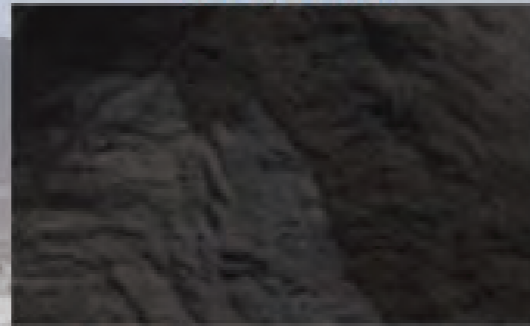
## Quality Assurance

We maintain a constant approach on the quality of the materials produced henceforth to satisfy the mandatory consultancy requirements of the all major contractors or buyers.

10-20 mm fully crushed



0-5 washed



20-40 mm



0-5mm fully crushed



20-40 stock



5-10mm fully crushed



Our products are random sampled by independent material testing laboratories on a regular basis and this, in addition to the client suggestion, is put into the quality improvement approach. In-house quality control is also applied during the production process by our experienced hands to achieve the maximum levels of constant quality products.





CLIENTS





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Holdings



Kharafi Global



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