

DEMONSTRATING THE BUSINESS VALUE OF SUSTAINABILITY: FIVE STRATEGIES FOR MEASURING ROI



**The National Water Research Center:
Driving Scientific Solutions for Egypt's
Water Challenges**



**Horizon Chemical: Advancing Specialty Solutions
for Wastewater Treatment Across MENA**

FILTRALITE®

**Filtralite® Pure: Tackling Nitrate Pollution for Safe and
Sustainable Drinking Water**



**Al Mousa Trading: Delivering Pumping Excellence for
Saudi Arabia's Growing Infrastructure**





AquaEnergy Expo
Magazine

Blue | Green | Sustainable | Smart

FILTRALITE®

Filtralite® at AquaEnergy Expo MEA 2025

Proudly showcased sustainable Filter Media solutions at the Middle East & Africa International Water & Energy Exhibition & Conference, Cairo – 24–26 September 2025.



FILTRALITE® PURE

Drinking water & Desalination.

FILTRALITE® PURE

Wastewater treatment.

FILTRALITE® PURE

Air quality & Odor control.

Why Filtralite®?

- Made from Expanded Clay – lightweight & highly porous.
- Superior filtration with reduced backwashing frequency.
- Saves water, energy & operational costs.
- Durable & long-lasting (for up to 30 years) with minimal maintenance.
- Backed by Saint-Gobain's global expertise in sustainable innovation.

Explore more about Filtralite® filter media via Aqua Energy Virtual Expo



Articles

Page 10: Demonstrating the Business Value of Sustainability: Five Strategies for Measuring ROI



Features

Page 14: The National Water Research Center: Driving Scientific Solutions for Egypt's Water Challenges



Companies

Page 19: Filtralite® Pure: Tackling Nitrate Pollution for Safe and Sustainable Drinking Water



Page 23: ECR Engineering Consultancy & Research



Page 28: Hyper Water: The Pioneer in Water Treatment in Egypt



Page 35: Your Trusted Partner in Professional Water Treatment Solutions



Sustainability

Page 41: X Plus Trading Company Linking needs, Building success



Page 43: Nassar Plastic: Shaping Infrastructure with Sustainable Piping Systems



Page 57: Al Mousa Trading: Delivering Pumping Excellence for Saudi Arabia's Growing Infrastructure



Water News Brief

Page 47: Water Monthly News Brief



Global Water Events

Page 50: Global Water Events



Page 62: Horizon Chemical: Advancing Specialty Solutions for Wastewater Treatment Across MENA



Page 68: Integrating Modern Wastewater Treatment and Odor Control



Page 75: Techno Install is a general Agencies & Contracting company specialized in water treatment projects and founded in 1984.



Page 82: I.S.I.S: Pioneering Digital Solutions for Industrial Innovation and Efficiency.



Webinars

Page 74: Webinars



Energy News Brief

Page 88: Energy Monthly News Brief





AquaEnergy Expo
M a g a z i n e
Blue | Green | Sustainable | Smart

AQUA ENERGY EXPO TEAM



Magazine Team



Mohamed Khalifa
Founder and CEO

Team leader
Heba Sayed

Design

- Hadeer Omar
- Omnia Gamal
- Nesma Saeed

Content Writers

Water Section

- Hadeer Omar

Energy Section

- Omnia Gamal

Virtual Expo Team

- Heba Taha

Webinars Team

- Hadeer Omar
- Haidy Walid
- Khlood Khaled

Social Media Team

- Shimaa Sayed

Knowledge Hub Team

- Esraa Hany

Marketing Team

- Heba Sayed :heba@aquaenergyexpo.com
- Khlood Khaled (China) : Khlood@aquaenergyexpo.com
- Esraa Hany : Esraa@aquaenergyexpo.com
- Haidy Walid :Haidy@aquaenergyexpo.com

Innovative Solutions to Achieve Sustainability in Water and Energy

From The Editor

In today's rapidly evolving landscape, sustainability stands as the cornerstone of effective risk management, value creation, and competitive advantage. As we navigate an unpredictable environment marked by climate challenges, organizations must recognize that prioritizing sustainability is no longer optional; it is essential for long-term viability and success.

This issue highlights the remarkable contributions of thirteen pioneering companies that are redefining water management through innovative and sustainable practices. These organizations exemplify how a commitment to sustainability can drive efficiency, foster innovation, and secure a competitive edge in the transition to a net-zero economy. Rather than viewing sustainability as a mere compliance obligation, these leaders are embedding it into their core strategies, setting industry benchmarks and attracting premium investments.

The National Water Research Center (NWRC), celebrating its 50th anniversary, illustrates the vital role of scientific research in shaping effective water policies. Its work underscores the importance of data-driven decision-making in addressing pressing water issues. Horizon Chemical is at the forefront of providing tailored water treatment solutions, showcasing how efficiency and sustainability can go hand in hand.

Kema House and Nassar Plastic highlight the significance of high-quality materials in creating reliable water infrastructure, while Techno Install and ECR Engineering Consultancy & Research are modernizing water systems through specialized engineering solutions. I.S.I.S (Integrated Solutions for Industrial Services) demonstrates the transformative power of technology in optimizing

water management processes, proving that innovation is key to overcoming today's challenges.

Moreover, companies like Hyper Water and Filtralite are making strides in ensuring safe drinking water and addressing environmental concerns, respectively. Al Mousa Trading Company and XPLus Trading contribute essential equipment and systems that enhance operational efficiency, while Sternova Solutions integrates advanced technologies for holistic water and wastewater management.

As climate change intensifies and urbanization accelerates, the collective efforts of these organizations are crucial for ensuring water security and resilience in the MENA region. Their initiatives not only tackle immediate water scarcity but also lay the groundwork for a sustainable future. We are proud to showcase their commitment to excellence and innovation, positioning them as leaders ready to confront the pressing challenges of today and tomorrow. Together, they are shaping the future of water management, fostering a legacy of sustainability for generations to come.



Mohamed Khalifa
Founder and CEO

EMAIL ADDRESS:

Info@aquaenergyexpo.com

LinkedIn: www.linkedin.com

COMPANY:

AQUA ENERGY EXPO LLC

ADDRESS:

(ST. PETERSBURG, FLORIDA USA 33702)

(L23000439864), EIN (61-2116509)



Aqua Energy Expo magazine includes more than 1000 unique articles and news about global Water and Energy fields

To download the Latest comma
Visit our Digital Magazine





AquaEnergy Expo

M a g a z i n e

Blue | Green | Sustainable | Smart

Now for Free & for a Limited Time

Show your products in the global virtual expo for water and energy products

Joining the virtual expo will help you to increase your customers network, grow your sales, publish your brand, find new distributors and agents and open new markets

*The virtual expo of water and energy products contains more than **15900** products and more than **1200** companies from more than **190** countries around the world*



To add your company for free contact us

WhatsApp (+966 505308851)

www.aquaenergyexpo.com



Demonstrating the Business Value of Sustainability: Five Strategies for Measuring ROI

In today's fast-changing business environment, companies face a crucial choice between maximizing profits and adopting sustainable practices. This dilemma calls for innovative solutions, particularly in understanding the often overlooked metric: the return on investment (ROI) of sustainability. Unlike traditional ROI, which focuses only on financial gains, this metric encompasses a wider range of benefits, including business, societal, and environmental impacts. By measuring these diverse effects, the ROI of sustainability offers a holistic framework for assessing the true value of sustainability initiatives.

Why Understanding the ROI of Sustainability is Crucial for Companies

The global shift toward sustainable and environmentally conscious practices is both necessary and inevitable.

The decade from 2010 to 2019 was the hottest on record, and the United Nations reports that weather-related events displace an estimated 23.1 million people annually. As the alarming specter of climate change continues to manifest in extreme weather, rising sea levels, biodiversity loss, and widespread displacement, companies are under increasing pressure from customers, stakeholders, and regulators to demonstrate their commitment to sustainability. In this context, understanding the ROI of sustainability is not just a strategic advantage, it is a necessity. By quantifying the impact of their sustainability initiatives, companies can make informed decisions that balance environmental responsibility with economic performance and key business objectives. This metric serves as a critical tool for evaluating the success of sustainability efforts, enabling organizations to refine their strategies, enhance operational efficiency, and improve overall performance.



The Broader Implications of the ROI of Sustainability

The ROI of sustainability goes beyond mere financial calculations. It provides a holistic view of how sustainable practices contribute to long-term business resilience, societal well-being, and environmental preservation. Companies that effectively measure and communicate their sustainability ROI can attract investors increasingly focused on environmental, social, and governance (ESG) criteria, thereby enhancing their market position and financial performance. Moreover, this metric empowers businesses to align their operations with global sustainability goals, such as the United Nations Sustainable Development Goals (SDGs), fostering a sense of purpose and responsibility. In doing so, companies not only secure their own future but also contribute to the broader goal of creating a more sustainable and equitable world.

Strategies for Leveraging Sustainability: Driving Competitive Advantage and Organizational Success

• Competitive Differentiation in a Carbon-Conscious Economy

1. The New Rules of Market Leadership

The definition of competitive advantage has fundamentally shifted. With over 4,000 companies—representing 33% of global market capitalization committed to science-based emissions targets, sustainability performance now directly influences:

- B2B procurement decisions (52% of firms prioritize ESG in supplier selection per SAP)

- Consumer purchasing behavior (sustainable products grow 28% faster than conventional ones)
- Investor capital allocation (88% of institutional investors screen for ESG performance)

2. The Supplier Sustainability Imperative

Supply chains are becoming a battleground for climate accountability. CDP data reveals that 67% of corporations will deselect suppliers failing to meet emissions targets by 2027. This creates both risks and opportunities:

- Risk: Suppliers lacking Scope 3 emissions tracking face exclusion from major contracts
- Opportunity: First-movers gain preferential access to \$12 trillion in sustainable procurement spending

3. Brand Equity and Premiumization

Sustainability credentials enable price premiums and customer loyalty:

- 79% of consumers alter buying habits based on sustainability (Capgemini)
- Brands with strong ESG narratives achieve 3.1x higher brand valuation multiples (Kantar)

• Operational Efficiency: The Hidden Profit Engine

1. Cost Arbitrage Through Resource Optimization

Sustainability-driven operational improvements deliver immediate bottom-line impact:

- Energy efficiency reduces facility costs by 20-30% (DOE)
- Circular waste systems cut material expenses by up to 50% (Ellen MacArthur Foundation)
- Smart logistics decrease transportation emissions while improving delivery times

2. The ROI of Decarbonization Technologies

Clean energy investments now outperform conventional alternatives:

Technology	Payback Period	Lifetime ROI
LED lighting	1.8 years	400%
Solar PV	4-7 years	200-300%
Heat recovery	2.5 years	350%

3. Resilience Against Resource Volatility

Companies with renewable energy contracts avoided \$4.2 billion in energy cost spikes during the 2022-2023 crisis (BloombergNEF). Sustainable operations act as a hedge against:

- Commodity price fluctuations
- Regulatory carbon pricing
- Supply chain disruptions



• Risk Mitigation and Future Proofing

1. The Financial Toll of Climate Inaction

- Climate disasters cost businesses \$1.5 trillion (2015-2021)
- 58% of companies experienced climate-related supply chain failures (McKinsey)
- Stranded assets in high-carbon sectors could reach \$1.4 trillion by 2030 (Carbon Tracker)

2. Regulatory and Legal Exposure

- EU CSRD mandates detailed sustainability reporting for 50,000+ companies
- US SEC Climate Rules require material risk disclosures
- Carbon border taxes (CBAM) impose up to 20% tariffs on emissions-intensive imports

3. Reputational Risk Quantification

Social media analysis reveals:

- ESG controversies cause 6-10% stock price declines (Harvard Law School)
- 41% of consumers will boycott brands after sustainability scandals (Edelman Trust Barometer)

• Capital Access and Financial Innovation

1. The Green Premium in Capital Markets

Sustainable companies benefit from:

- 0.5-1.5% lower interest rates on green bonds (Climate Bonds Initiative)
- 11.4x higher ESG-linked loan volumes since 2020 (Bloomberg)
- 130% faster IPO pricing for ESG-aligned firms (PwC)

2. Investor Expectations and Valuation Impact

- 90% of S&P 500 firms now tie executive compensation to ESG metrics
- ESG leaders trade at 10-15% valuation premiums (MSCI)

3. Innovative Financing Mechanisms

- Sustainability-linked bonds (SLBs) with coupon rates tied to KPIs
- Transition finance for hard-to-abate sectors
- Blue bonds for ocean conservation projects



• Human Capital and Organizational Vitality

1. The Talent War for Purpose-Driven Professionals

- 40% of millennials accept lower salaries for ESG-aligned employers (Deloitte)
- Sustainability roles grew 237% faster than overall job market (LinkedIn)

2. Productivity and Cultural Benefits

- ESG-focused firms report 14% higher employee engagement (Gallup)
- 62% reduction in turnover at companies with strong sustainability cultures



3. Leadership Development Through ESG

Sustainability challenges cultivate:

- Systems thinking capabilities
- Stakeholder management skills
- Innovation mindsets

Implementation Framework: Turning Theory into Action

Phase 1: Materiality Assessment

- Map sustainability issues to financial impacts using SASB standards
- Engage 360° stakeholders (investors, employees, communities)

Phase 2: Metric Development

- Adopt Science-Based Targets (SBTi) for emissions
- Implement TCFD-aligned climate risk modeling

Phase 3: Cross-Functional Integration

- Embed sustainability in procurement contracts
- Link 30% of executive bonuses to ESG KPIs

Phase 4: Transparent Communication

- GRI-compliant sustainability reporting
- Digital product passports for circularity tracking

Conclusion

The evidence is clear sustainability has become the essential framework for risk management in an unpredictable environment, value creation through enhanced efficiency and innovation, and competitive positioning in the transition to a net-zero economy. Organizations that prioritize sustainability as a core strategic focus, rather than merely a compliance requirement, will lead their industries, attract premium investments, and safeguard their long-term viability. The critical question is no longer whether to embrace sustainable practices, but rather how swiftly and thoroughly they can be integrated to seize first-mover advantages. Those who postpone action will face increasing costs both financial and existential in a marketplace increasingly constrained by climate challenges.



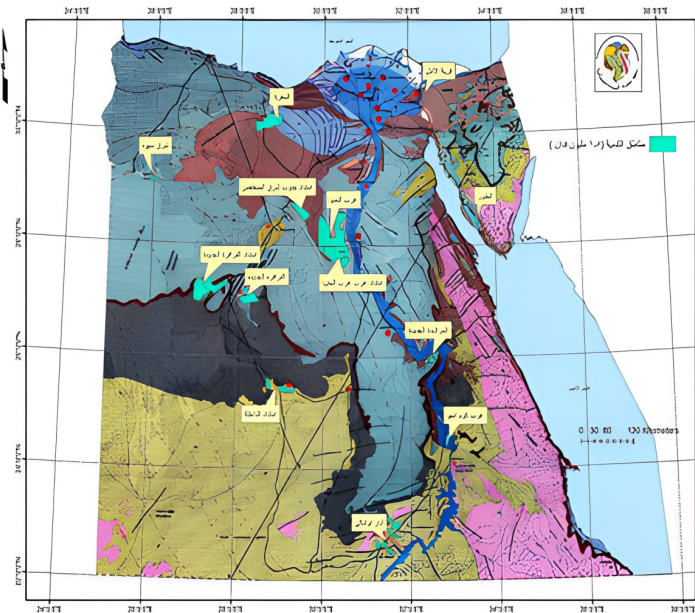
The National Water Research Center: Driving Scientific Solutions for Egypt's Water Challenges

The National Water Research Center (NWRC) is Egypt's premier institution for water-related research and development. It was officially established in 1975 under the Ministry of Water Resources and Irrigation (MWRI), and celebrates its 50th anniversary in 2025 under the theme "50 Years of Innovation in Water Science", marking five decades of impactful contributions to water science, policy, and innovation.

Although formally founded in 1975, NWRC's institutional roots trace back to 1947, beginning with early efforts such as the establishment of the Hydraulics Research Experimental Station. Over the decades, NWRC has grown into a comprehensive research body dedicated to addressing Egypt's complex water challenges through applied scientific research and technical development.

NWRC oversees a network of twelve specialized research institutes, each focusing on a specific domain of water engineering, applied sciences, or technology. These institutes contribute to a unified national research agenda supporting development projects and long-term strategies for water conservation and security.

Complementing its core institutes, NWRC has established several strategic and support units, including the Central Laboratory for Environmental Quality Monitoring (CLEQM), the Strategic Research Unit (SRU), the Capacity Building Unit (CBU), a GIS Unit, and the Water Studies and Research Complex in Toshka. Together, these units form an integrated system for scientific advancement and policy support in the water sector.



Its Vision: To be internationally recognized as a leading research institution in water sciences, driving innovation and developing sustainable, practical solutions to address global water resource management challenges.

Its Mission: is to dedicated to advancing knowledge and expertise through cutting-edge applied research, providing scientific support for high-level water policy and decision-making.

Its Mandate: is producing the scientific knowledge needed by policy makers, public and private sectors. Expertise and knowledge of the Egyptian water resources system, up-to-date research infrastructure and facilities, and time extended data archives are NWRC's assets and means to perform high quality applied research.

NWRC Core Activities:

NWRC's work spans a broad spectrum of activities in applied research, advisory services, and technical innovation. Below are NWRC's key functional areas:-

• Applied Research and Scientific Development

NWRC conducts multidisciplinary research projects addressing Egypt's pressing water challenges, such as limited freshwater availability, water-use efficiency, salinization, climate change impacts, and rising sea levels. It provides actionable research outcomes for both short-term and long-term planning.

- **Specialized Research Institutes**

Each of NWRC's twelve research institutes

specializes in a distinct field of water science and engineering, contributing to a comprehensive, multidisciplinary approach to national water management. These are:

1. Water Management Research Institute (WMRI)
2. Drainage Research Institute (DRI)
3. Water Resources Research Institute (WRRI)
4. Nile Research Institute (NRI)
5. Hydraulics Research Institute (HRI)
6. Channel Maintenance Research Institute (CMRI)
7. Research Institute for Groundwater (RIGW)
8. Construction Research Institute (CRI)
9. Mechanical and Electrical Research Institute (MERI)
10. Survey Research Institute (SRI)
11. Coastal Research Institute (CoRI)
12. Environmental and Climate Change Research Institute (ECRI)

- **Specialized Research Units**

A. Strategic Research Unit (SRU): develops long-range plans such as Egypt's Desalination Strategy and national water masterplans. SRU also develops models and tools to help assess water allocation, climate change risks, and sustainability scenarios.

B. Central Laboratory for Environmental Quality Monitoring (CLEQM): is a multidisciplinary organization dedicated to finding solution to environmental problem. The certificate of laboratory proficiency by the Canadian Association for Environmental Analytical Laboratories awarded in 2004 & updated each year (registration No. 3409)

c. **Training and Capacity Building (CBU):** delivers training to engineers, researchers, students, and practitioners. It provides programs on integrated water resources management (IWRM), hydraulic modeling, irrigation management, geographic information systems (GIS), and soft skills such as communication and leadership.

D. Regional Training Centre (RTC): The RTC is established as a hub for capacity building in the water sector since its inception for more than 25 years. It covers a wide range of water management and hydraulic engineering topics, where over 1,200+ training sessions were conducted, more than 1,800 professionals were trained, and more than 200 specialized courses focusing on hydraulic modeling, flood management, water resources sustainability were carried out.



Diagram illustrating 10 rows of artificial grass in the natural models laboratory

• Human Resources (research staff)

NWRC comprises approximately 510 researchers dedicated to advancing Water Sciences and Resource Management.

• Research Facilities

NWRC uses specialized programs such as: Delft 3D, Mike, HEC-HMS, FLOW-3D; as well as technical programs such as: Arc Map, AutoCAD, MATLAB, and ERDAS IMAGINE

NWRC also comprises a number of key research facilities that help perform its research activities:-

- Hydraulic Physical Models in HRI
- Climatic Changes Lab. In ECRI
- Water Desalination Research Plant (SRU)
- Pump Performance labs at MERI

• NWRC Networks

NWRC also operates a vast network across Egypt, dedicated to monitoring water quantity, quality, and flow dynamics.

• NWRC Research Stations

NWRC also comprises about 25 research stations that cover all over Egypt; among which are: Wadi Natron, Zanklon, Manzala, Sahl El Teen, as well as Hydrological Observation Stations in Abu Qir, Mariot, Al-Mazallat, Burulus, Qanater, and Rashid stations.

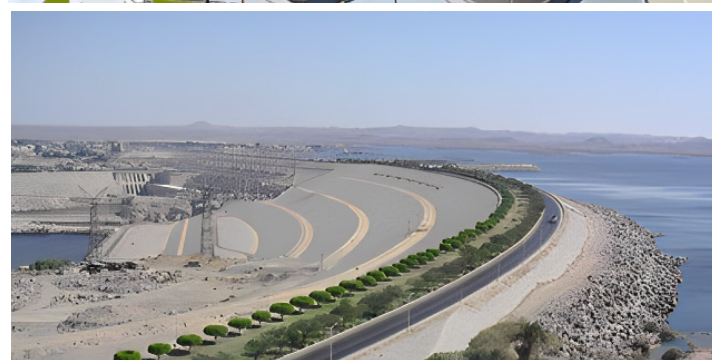
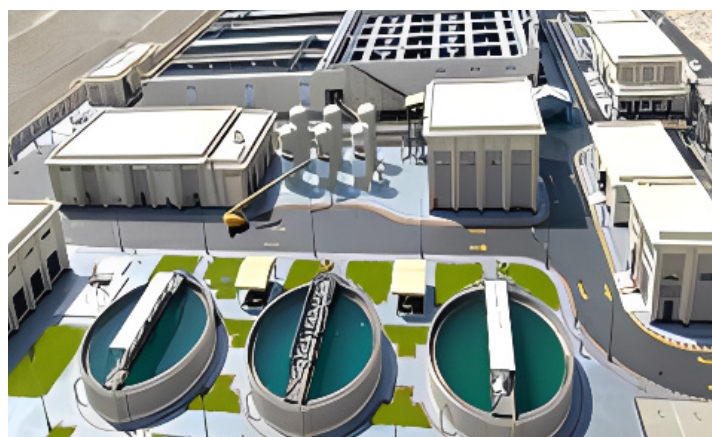
• Participation in National Mega Projects

NWRC has participated mainly in many national projects, the most important of which are:-

- Dairout Barrages
- Treatment Plant projects, such as: El-Salam Canal

Project, El-Mahsma Treatment Plant, New Delta Treatment Plant, and Bahr El-Baqar Treatment Plant.

- High Dam Safety Monitoring Project
- Protection of the Egyptian Coasts (Red Sea Coast).
- Flash Flood Atlas of Egypt: NWRC led the development of a comprehensive flood-risk mapping system for Egyptian governorates. The atlas provides a decision-making tool for local authorities to plan for disaster risk reduction.
- Red Sea and Sinai Coastal Management: NWRC supported the Shoreline Management Plan for the Red Sea region. The project assessed coral reefs, mangroves, and the implications of sea-level rise, proposing environmentally sound setback zones for development planning.
- Carbon Footprint in Irrigation Systems: Research conducted by NWRC's institutes examined how different irrigation practices contribute to carbon emissions. The studies proposed solutions to reduce energy consumption and greenhouse gases, especially in the West Delta.
- Atlas of Egypt's Water Resources: This GIS-based national water atlas presents the spatial distribution of surface and groundwater sources, hydraulic structures, and pollution hotspots. The tool supports national planning and enhances transparency in water governance.



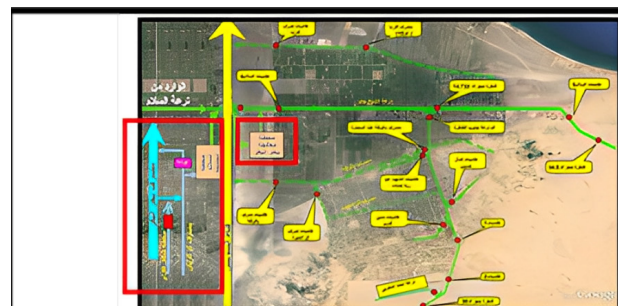
High Dam Safety Monitoring Project



Change of Expertise and Cooperation with Building Foundation for Development Association – Lake Manzala



Elements of the Waterway System in the Al-Mahsama Treatment Plant Project - East Suez Pumping Station



Waterway System for Treatment Plant Projects (Bahr El-Baqar – New Delta)



Hydraulic Physical Models in HRI

• Key International Projects

NWRC has implemented and contributed to over 200 major research and development projects. Below are some of the most notable initiatives:

- Joint Cooperation in Applied Research (JCAR) – joint partnership between Egypt and the Netherlands (NWRC – DELTARES – Shore Protection Authority)
- EU-ZIRA3A Integrated Rural Development Program funded by Italian Agency for Developmental Cooperation
- NWRC-PRIMA project “Converting marginal lands of the Mediterranean basin into productive and sustainable agroecosystems using low water demanding Neglected and Underutilized Species VENUS
- Water Productivity in Agricultural funded by FAO
- Sustainable Agricultural Drainage Project: In collaboration with North Carolina State University and Egypt’s Public Authority for Drainage Projects (EPADP), NWRC’s DRI evaluated drainage systems in the Nile Delta using advanced models like DRAINMOD. The research helped improve drainage efficiency and agricultural productivity.

• Cooperation Protocols with NWRC

Within the framework of enhancing international cooperation with partner countries, NWRC

has engaged signing in several protocols and agreements with research entities and authorities, Egyptian Universities, and international agencies such as: International Cooperation protocol with Tottori University of Japan, CIHEAM-Bari, and IHE-Delft. In addition to cooperation protocols between research institutes and some bodies and authorities of the MWRI



Joint meeting between NWRC High-Level Staff & Deltares Counterparts on the Joint Cooperation for Applied Research (JCAR) - Pillar 1



Singing Protocols

conclusion

we can conclude from the above that: The National Water Research Center stands at the forefront of Egypt's efforts to address water scarcity, enhance agricultural productivity, and adapt to climate change. With five decades of scientific contributions, NWRC has played a pivotal role in shaping water policies, advancing technology, and supporting sustainable development across the country. Its research institutes, strategic planning units, and training platforms continue to provide the government and private sector with critical insights, innovations, and capacity to meet the water challenges of the 21st century. Whether in cooperation with national ministries, international donors, or academic institutions, NWRC remains committed to its vision: enabling Egypt to sustainably manage its precious water resources for future generations.

Contact and Communication

For further inquiries, partnerships, or information, NWRC can be reached through the following contact details:-

- **Official Name:**

National Water Research Center (NWRC)
Ministry of Water Resources and Irrigation-
Arab Republic of Egypt.

- **Mailing Address:**

National Water Research Center
Fum Ismailia Canal, P.O. Box 74 Cairo 13411 –
Egypt.

- **Telephone:** +2 02 44059858
+2 02 44059846

- **Fax:** +2 02 44059850

- **Website:** www.nwrc.gov.eg

- **Email:** nwrc@nwrc.gov.eg



FILTRALITE®

Filtralite® Pure: Safe and Sustainable Nitrate Removal

Access to clean and safe drinking water is one of the most pressing global challenges. Across the world, communities are struggling with groundwater contamination particularly from nitrates caused by intensive agricultural activity. Traditional solutions such as reverse osmosis or ion exchange often come with high costs and complex operation, making them less practical for small and medium-sized water treatment facilities.

This is where Filtralite® Pure makes a difference. As an advanced filter media made from expanded clay aggregates, manufactured in Finland and used worldwide, it enables highly efficient biological denitrification, delivering safe drinking water while lowering both operational and investment costs. By combining performance, durability, and sustainability, Filtralite® Pure is redefining how utilities approach nitrate removal in drinking water treatment plants.

Why Biological Denitrification?

Biological denitrification has emerged as one of the most advanced, selective, and cost-effective solutions. This process removes nitrate through dissimilatory reduction, transforming it into harmless nitrogen gas.

It has already been applied successfully in wastewater treatment and contaminated groundwater, with biofilm-based technologies achieving the

highest nitrate removal rate per volume.

For drinking water treatment plants (DWTP), biological denitrification has proven to deliver outstanding results.

How the Process Works

Biological denitrification relies on the biological oxidation of organic substrates in water, using nitrate or nitrite as the electron acceptor instead of oxygen.

To achieve this, an organic carbon source (such as methanol, ethanol, acetic acid, or glucose) must be added to the water. In the absence or limitation of dissolved oxygen (DO), the nitrate reductase enzyme is activated, helping transfer hydrogen and electrons to nitrate as the terminal electron acceptor.

This step-by-step reduction ultimately converts nitrate into nitrogen gas.

In a DWTP, this entire process can be achieved inside an anaerobic biofilter filled with the right filter media.

“Here, Filtralite® Pure serves as the optimal carrier for the denitrifying biofilm, ensuring reliable, efficient, and long-lasting performance”

Filtralite performance: 60% nitrate removal & cost savings

Filtralite® Pure in Action: Nitrate Removal at the Formiche Alto Drinking Water Plant, Spain

A practical example of this technology can be found in the Drinking Water Treatment Plant of Formiche Alto in Teruel Province, Spain.

Built in 2017 by Ingeobras, the plant was designed to treat groundwater that otherwise meets Spanish regulations for drinking water quality (RD 140/2003), except for nitrate levels of around 60 mg/L (variable depending on the season).

Since the regulatory limit in Spain is 50 mg/L, the municipality needed a reliable, small-scale solution. A 5 m³/h DWTP was therefore built with four treatment stages:

1. Anaerobic Denitrification Biofilter with Filtralite® Pure for nitrate removal.
2. Physical Filtration to remove suspended solids.
3. Biological Aerated Filter to eliminate remaining organic matter.
4. Chlorine Disinfection to kill any bacteria or pathogens from the biological steps.



THE SMALL PLANT: View of the small plant with the sedimentation tank outside.

Performance Results

The Formiche Alto DWTP was designed to achieve a “60% nitrate removal rate, bringing the final concentration down to below 25 mg/L”. This ensures compliance with Spanish regulations while maintaining a safe margin for public health.

Backwash and Water Reuse

The backwash water produced accounts for 5–10% of the total filtered water. Its quality allows safe discharge into the sewage network or reuse in agriculture”.

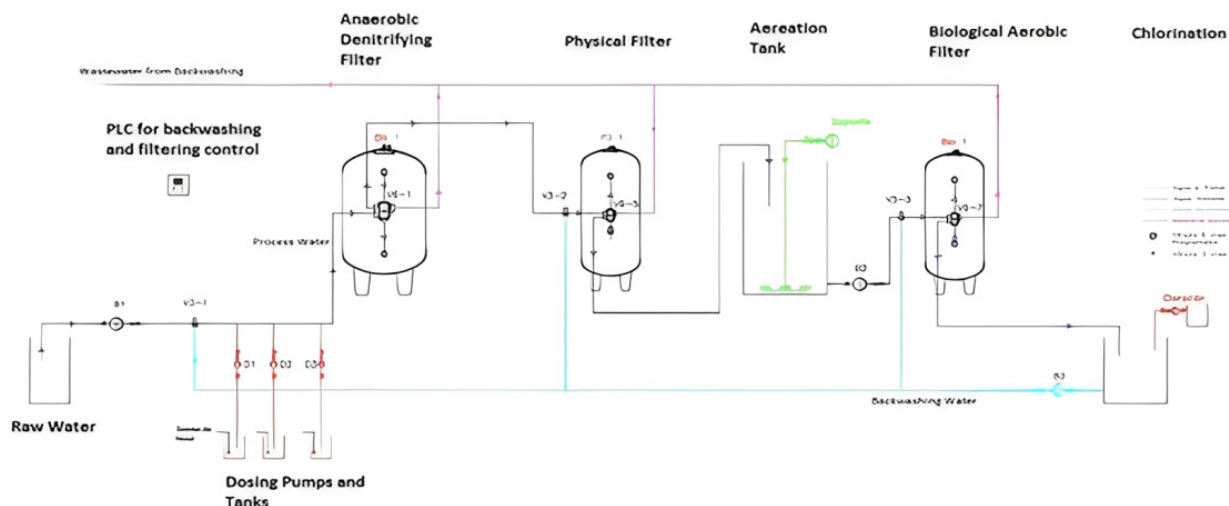
Since the DWTP is located far from the sewage system, the wastewater is instead collected in a sedimentation tank, where it is stored and managed accordingly.

Automation and Operating Costs

The plant operates automatically, reducing the need for continuous supervision and minimizing labor costs.



DWTP INDOOR: View of the DWTP indoor with the Bio-filers and the PLC.



“According to Ingeobras, for a DWTP treating 60 mg/L of nitrates at a daily flow of 1,000 m³, the total operating cost is around €0.16/m³”

Divided as follows:

- €0.08/m³ for reagents (mainly organic matter),
- €0.04/m³ for energy,
- €0.04/m³ for maintenance.

Filtralite® Pure: Long-Term Durability

“The heart of the system is Filtralite® Pure, which offers a lifespan of more than 20 years. This long durability minimizes the need for replacement, reducing both costs and environmental impact”.

Advantages of Filtralite® Pure

- High nitrate removal efficiency (70–95%).
- Low operating & investment costs.
- Long lifespan (20+ years).
- Lightweight, porous structure for strong biofilm growth.
- Reliable, simple operation with low energy use.
- Environmentally sustainable (backwash reuse, low impact).

Comparing with Alternative Technologies

When compared with conventional nitrate removal technologies,

“the CAPEX and OPEX of the Formiche Alto plant is significantly lower due to the simplicity of the biological design”.

Typical removal efficiencies are as follows:

- Biological Denitrification: 70–95%
- Ion Exchange: 80–90%
- Chemical Reduction: 33–90%
- Electro-dialysis: 30–50%
- Reverse Osmosis: 50–96%

“This makes biological denitrification with Filtralite® Pure one of the most reliable and efficient solutions for nitrate removal”.

Sustainability and Environmental Benefits

In addition to technical and economic advantages, the system also contributes to environmental sustainability. Its low energy use, minimal maintenance needs, and potential for reusing backwash water support both ecological responsibility and cost savings.

Conclusion

The Formiche Alto DWTP demonstrates the real-world benefits of using Filtralite® Pure in drinking water treatment. It delivers:

- Safe water quality well within regulations.
- Lower capital and operational costs.
- Long-lasting performance with minimal maintenance.
- Strong environmental sustainability.

This project stands as a model for small communities worldwide, showing how innovative filtration media can ensure safe, sustainable, and affordable drinking water for future generations.



AquaEnergy Expo
Magazine

Blue | Green | Sustainable | Smart

FILTRALITE®

Filtralite® at AquaEnergy Expo MEA 2025

Proudly showcased sustainable Filter Media solutions at the Middle East & Africa International Water & Energy Exhibition & Conference, Cairo – 24–26 September 2025.



FILTRALITE® PURE

Drinking water & Desalination.

FILTRALITE® PURE

Wastewater treatment.

FILTRALITE® PURE

Air quality & Odor control.

Why Filtralite®?

- Made from Expanded Clay – lightweight & highly porous.
- Superior filtration with reduced backwashing frequency.
- Saves water, energy & operational costs.
- Durable & long-lasting (for up to 30 years) with minimal maintenance.
- Backed by Saint-Gobain's global expertise in sustainable innovation.

Explore more about Filtralite® filter media via Aqua Energy Virtual Expo



ECR Engineering Consultancy & Research

WHO WE ARE...

Engineering Consultancy & Research (ECR) is a leading firm specializing in engineering, design, and research, delivering innovative solutions to some of the world's most complex challenges in water treatment and energy recovery.



Its Founder Dr. Mohamed Swidan, Consultant of water (Desalination / Treatment) and Energy recovery systems and Ex-Head of Design sector & water treatment branch of Water Department / Engineering Authority of Egyptian Armed Forces (brigadier general), has been in the Water Treatment market since 1995 with Experience of more than 25 years in operation & maintenance of RO & MED desalination plants.

We have proudly signed a mutual agreement with the Arab Organization for Industrialization to collaborate on the design, manufacturing, and production of cutting-edge desalination plant equipment and components, with a shared goal of providing innovative, high-performance products for the region.





VISION & APPROACH

Our vision is aligned with global sustainability and development goals, with a core focus on:

- Innovative solutions in water desalination plants, and energy saving
- Clean Water and Sanitation
- Safe and Sustainable Operations
- Inclusion and Diversity
- Employee Health, Well-being, and Growth

We strive to leave a distinctive mark on every water plant we design, continuously introducing new technologies to the market. Internally, we are committed to building efficient structures for information flow, decision-making, and effective management—ensuring that innovation and excellence are embedded in everything we do.



has been assessed and found to conform to the requirements of ISO 9001:2015

ECR SERVICES: -

At Engineering Consultancy & Research (ECR), we offer a comprehensive range of design, supervision, project management, and consultancy services across various sectors in the water and infrastructure industries. Our expertise includes:

- RO Desalination Plants
- Wastewater Treatment Plants

- Industrial Water Treatment Systems
- Ultrafiltration (UF) Plants
- Iron & Manganese Removal Systems
- Booster Pumping Stations
- Infrastructure Development Projects
- Irrigation Networks
- Specialized Irrigation Systems for Gegoba & Getrova utilizing Tertiary Treated Water

We deliver tailored, high-performance solutions for each project, ensuring sustainability, efficiency, and innovation at every stage.

ECR Projects: -

1. Jojoba Irrigation Plant

Location: Hurghada, near the Red Sea shore (Suez Gulf)

Scope: Cultivation of 3,000 Acre





2. Ultra Filtration Plant – New Administrative Capital

Location: New Administrative Capital, Cairo, Egypt
Capacity: 50,000 m³/day (Extendable to 200,000 m³/day)



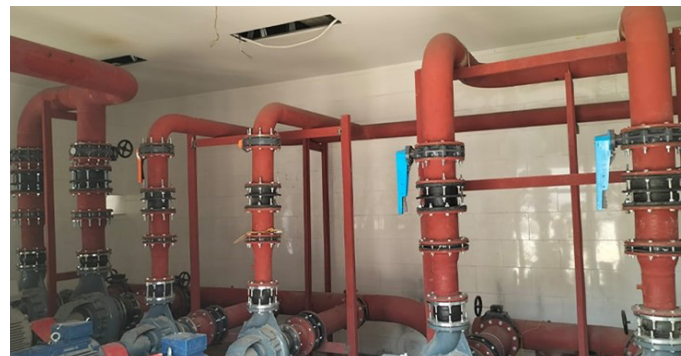
3. Sharm Elsheikh SWRO Plant

Location: Sharm Elsheikh Governorate, Egypt
Capacity: 30,000 m³/day (Extendable to 60,000 m³/day)



4. Iron & Manganese Removal Plant – Gharbia Governorate

Location: Gharbia Governorate, Egypt
Capacity: 7,800 m³/day





5. Toshka Irrigation Plant

Location: New Valley Governorate, Egypt

Scope: Cultivation of 17,000 Acres



6. Al-Ein El-Sokhna seawater Intake System

Location: Suez Governorate, Egypt

Capacity: SWRO 340,000 m³/day



7.El Tor Medium Voltage Electricity Network

Location: El-Tor, South Sinai Governorate, Egypt
Coverage Area: 25,000 Acres



Innovations and patents

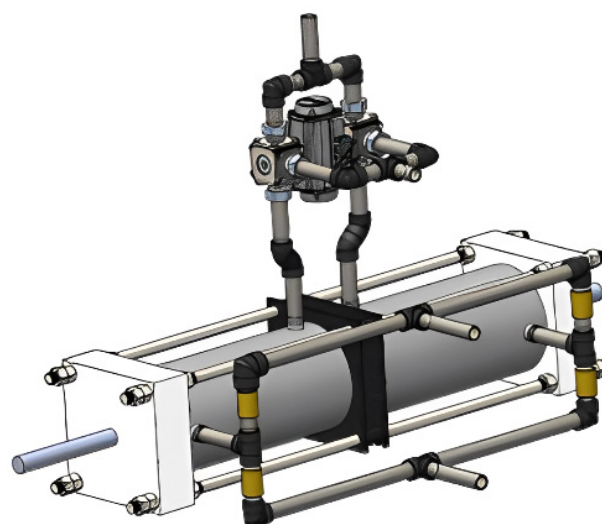
1. SWIDAN-PE

This Innovation aims to develop an innovative energy-saving unit for reverse osmosis (RO) desalination plants, focused on recovering waste energy and improving system efficiency. By enhancing energy recovery, reducing energy consumption, and lowering operational costs, the goal is to make desalination more sustainable, cost-effective, and environmentally friendly. This work will also contribute to reduce operational noise and CO₂ emissions, paving the way for a greener future in water desalination.



2.SWIDAN-DAC

DAC, a new ERD designed to eliminate the need for a booster pump decreasing both capital cost and system complexity especially for small to medium desalination systems.



Contact us

• Head Office:

135 Mostafa Elnahas st. ,Apart.No. 54, NASR CITY, CAIRO - EGYPT.

• **Tel:** +202 22871876

• **Fax:** +20226207717

• **Mob:** +20 1271399054
 +201001767238

• **LinkedIn:** <https://www.linkedin.com/company/ecr-engineering-consultancy/>

• **Website:** <https://ecr-eg.com/>

• **e-mail:** m.swidan@ecr-eg.com



Hyper Water: The Pioneer in Water Treatment in Egypt

We have been operating in the water treatment field since 2010 and officially registered our brand in 2023. The concept behind our brand is to combine the best local and international products into a single high-quality solution, offering it to the Egyptian market through 120 agents across the country. This ensures a well-structured distribution network, with unified pricing, consistent quality, and easy customer service through the nearest agent or distributor.

By the grace of God, we succeeded in this experience, and many brands have since followed our path. We are proud to have made significant changes and improvements in the water filter market in Egypt.



Our Activities

We specialize in multi-stage domestic water treatment units, as well as providing solutions for hotels, restaurants, cafés, companies, schools, and hospitals.

Over our journey, we have installed more than 10,000 household units and served countless families by delivering products that provide pure and healthy drinking water.



Contact Us

WhatsApp: +20 12239 90590

Website: www.hyperwatereg.com/

Facebook page: Hyper Water

Our Products

8-stage, 7-stage, and 5-stage filtration units

Ultrafiltration Units

400 GPD and 800 GPD RO plants

Whole-house Water Treatment Systems





Visit our Knowledge Hub



Read and Download More than **13000** Free and Open Access References in Water and Energy Science and Engineering

Are you looking for new customers?

Join Aqua Energy Virtual Expo and
increase your sales

Joining our Virtual Expo will help you
to increase your customers network, grow
your sales, publish your brand, find new
distributors, agents and open new markets

COUNTRIES 190+

COMPANIES 1200+

PRODUCTS 15900+

www.aquaenergyexpo.com

Buyers Guide for Water and Renewable Energy Companies

Aqua Energy Virtual Expo

To add your company for free contact us
WhatsApp (+966 505308851)



www.aquaenergyexpo.com



VEOLIA

FILTRALITE®

أمانتيت
AMIANTIT

الموسى
AL MOUSA
AL MOUSA TRADING CO. شركة الموسى للتجارة

BINDERGROUP
MEASUREMENT & CONTROL

xylem
Let's Solve Water

SIEMENS

Endress+Hauser **EH**

ABB

LG Chem

Schneider Electric

Danfoss

SULZER

KURITA

HUBER TECHNOLOGY
WASTE WATER Solutions

METITO

GRUNDFOS

DUPONT

ZAHRAWI

الوسائل
ALWASAIL

IWTE™

TORAY
Innovation by Chemistry

AQUATREAT

مجموعة شركات الصامية
Al-alameya Group

نقى
NAQI

HYDRODEX

شركة الآلة
alalah co.

WETICO ونككو
Water & Environmental Technologies

WEST
Water & Environmental Systems Technologies

مصاير المستقبل
FUTURE RES

GMC GREEN MODELING CONTRACTING

GCF
Greater Cairo Foundries Co.

SADRIC

FLUCON
Fluid Control Engineering Services

HACH

JACOBI CARBONS

Clack®

PENTAIR WATER SOLUTIONS

ANDRITZ

Atlas Copco

Alkhorayef

REDA

EBARA

WABAG

ELSEWEDY ELECTRIC

MECANA
A Metawater Company

AquaChemie

CFM
CONTRACT FACILITIES MANAGEMENT

Giza Systems

الفنار
alfanar

PURE LIFE

LIFE SHIELD
AQUA SHIELD

شركة عبداللطيف حسن بنو الجدال وأولاده
Aboulatif H. Abujadaye & Sons Co.
Right Solutions

Desalination Solutions Trade Co.
حلول التحلية التجارية

CWC
CWC WORKS COMPANY LTD.

العماد العربي
للرستشارات الهندسية

الشباب السعودية
SBC
SAUDI BASHAYER

Asteco
ASTECO THRESHOLD CORP. SINCE 1985

AWS
Advanced Water Systems Trading Co.
شركة آف إس آي للتجارة المتقدمة

ERCON GROUP
DISTRIBUTING POWER





Kema House Co
شركة كيماهاوس

Your Trusted Partner in Professional Water Treatment Solutions

At Kema House, we specialize in providing high-quality water treatment services, advanced chemical products, and essential technical support for a variety of industries. With a focus on safety, efficiency, and regulatory compliance, we are dedicated to helping our clients maintain reliable, safe water systems tailored to their unique operational needs.



OUR MISSION

Our mission is to deliver comprehensive water management solutions that enhance safety, optimize performance, and ensure compliance with international standards. We strive to build long-term partnerships based on trust, expertise, and our commitment to excellence.



OUR VISION

Our Vision is to be a leading provider of water treatment solutions, known for our dedication to quality, innovation, and client satisfaction. We aim to create a safer, more efficient water management environment across all industries we serve.

Searching for specialized water treatment solutions for safe and efficient operations?

KEMA HOUSE COMPANY delivers end-to-end water management solutions, ensuring your systems operate at peak performance while meeting the highest standards of safety and quality.



Asking yourself, Why choose KEMA HOUSE COMPANY?



1. Unmatched Expertise:

With years of industry experience, our team of certified engineers and water treatment specialists brings in-depth knowledge and practical expertise to every project. We stay updated on the latest technology and regulations, ensuring our clients receive best-in-class solutions tailored to their unique needs.



2. Safety & Compliance:

We adhere to the highest safety and regulatory standards, including WHO guidelines for water safety. Our rigorous testing, advanced chemical treatments, and monthly compliance reports help you maintain safe, reliable water systems and avoid health risks or costly shutdowns.



3. End-to-End Services:

From water treatment and chemical supply to advanced testing and consulting, Kema House offers a full range of services for complete water management. We provide everything you need to keep your systems efficient, compliant, and fully operational—all from a single trusted partner.



4. Customized Solutions:

Every facility has unique water treatment requirements. That's why we customize our services to fit your specific system setup, operational goals, and compliance needs. Our tailored approach ensures cost-effective solutions that enhance system performance and longevity.



5. Support & Training:

We go beyond service delivery by providing technical support, regular maintenance, and training programs. With Kema House, your team gains the knowledge and tools to maintain optimal water quality and system functionality, helping you reduce down time and improve operational efficiency.



6. Proven Track Record of Success:

Our successful partnerships with numerous clients speak to our reliability and excellence in water management. Backed by positive testimonials and industry certifications, Kema House is a trusted name that you can rely on for consistent, high-quality results.



OUR SERVICES

What services does KEMA HOUSE COMPANY provide and How do they present them?



Testing:

• Kema House engineers will visit each client to carry out chemical tests with the presence of the client to check on the performance and operating parameters of the following systems whenever available:

- Domestic Cold Water System
- Cooling Towers System
- Chilled Water System
- Closed Heating System
- Steam Boiler System
- Swimming Pools System
- Sewage & Waste Water System
- Drinking Water System



- A monthly Consulting Service Report (CSR) including our instructions and necessary actions recommended will be sent by fax or e-mail. The original will be handed to the client on the next visit.
- Kema House will supply chemical reagents and indicators at wholesale prices to enable the client to carry out the recommended tests on a daily basis.



- Kema House will also supply specially prepared Log Sheets, which will be used by the client to tabulate all the tests carried out by them on a daily basis.
- Kema House will carry out a bacteriological test on the potable water (tap water) at each client's to determine its suitability and conformity to the World Health Organization (WHO) standards each month. These tests will be analyzed in The Biotechnology center laboratory at Cairo university.



- Kema House will carry out Legionella Pneumophila testing upon request. A water sample will be taken from each client's to be inspected and tested to confirm that the water is free from bacteria and following an incubation period, the analysis results will be delivered to the client. These tests will be analyzed in The Biotechnology center laboratory at Cairo university.

• Following are the recommended locations for Legionella sampling:

- Domestic Cold or Hot Water Systems.
- Cooling Tower System.
- Condensation of Fan Coils.
- Swimming pool System.
- Mains Water.
- Jacuzzi.
- Water Falls & Fountains.

The above tests should be carried out twice per year (Spring and Autumn) to be performed against contract or upon request (including the number of samples and locations).



Training Seminars:

Kema House plans a training program to cover all fields. This program shall be scheduled twice a year for a duration of three days, and is specifically hosted for your engineers and technicians.

This seminar will cover the following topics:

- Basic principles and new trends in water treatment.
- Increase the awareness of water treatment issues and solutions.
- Hands on training on the use of the test kits, log sheets and tabulations designed to carry out the daily recommended tests.
- Log Sheet filling and usage induction.
- Technical Reports Issuance technique.





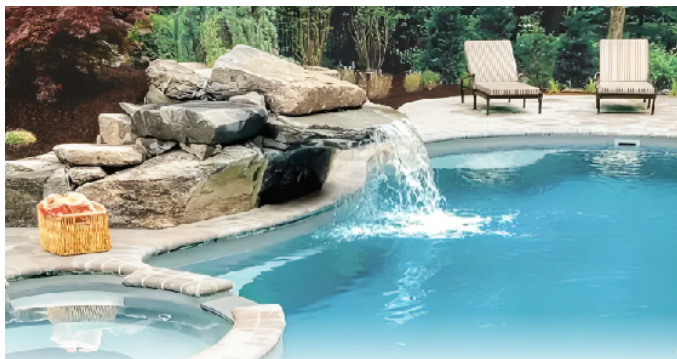
Products Supply:

Kema House supplies a wide range of premium water treatment chemicals to support safe, efficient, and compliant water systems. Our products are formulated to meet the highest standards, ensuring effective results for every application.

• Swimming Pools:

Chemicals supplied for swimming pools systems are as follows:

- Chlorine 65% (Granular Form)
- Chlorine 90% (Powder & Granular Forms)
- Chlorine 90% (Tablets)
- Chlorine 70% (Granular Form)
- pH Minus
- pH Plus
- Algaecide
- Flocculant
- Cyanuric Acid
- Caustic Soda Flakes



• Steam Boilers:

Chemicals supplied for steam boilers systems are as follows:

- Condensing Corrosion Treater
- Boiler Scale and Corrosion Inhibitor
- Anti-scalant

• Cooling Systems:

Chemicals supplied for cooling systems are as follows:

- Rust Cleaner for new Systems
- Corrosion Inhibitor
- Biocides
- Anti-scalant

• Potable Water:

Chemicals supplied for potable water are as follows:

- Corrosion Inhibitor
- Anti-Scalant

• Hot Water:

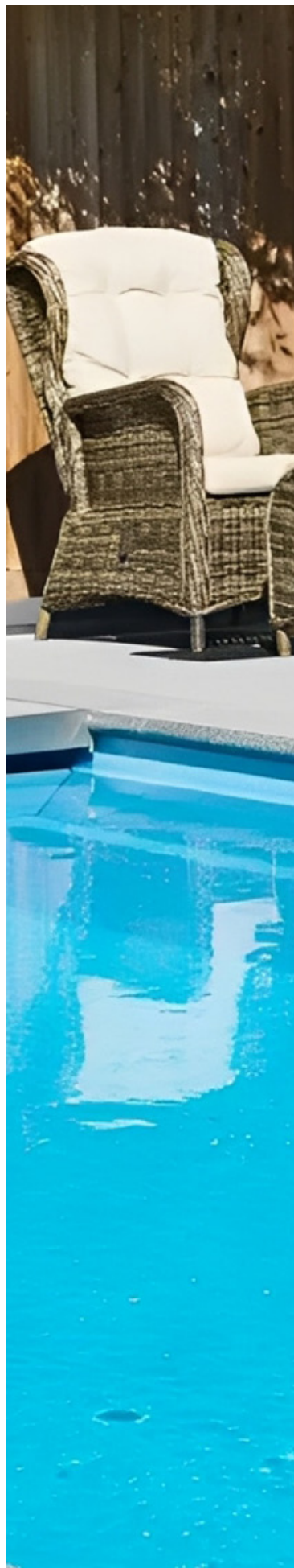
Chemicals supplied for hot water are as follows:

- Corrosion inhibitor
- Anti-Scalant



Equipments & System Supply:

Kema House supplies a wide range of premium equipment and specialized systems to support safe, efficient, and compliant water systems. Our products are formulated to meet the highest standards, ensuring effective results for every application.



Equipments

Pool Standard Wall Brush (10")



Equipments

Telescopic Pool Maintenance Pole



Equipments

Pool Vacuum Hose (40' x 1.5")



Equipments

Pool Standard Flat Leaf Skimmer Net



Equipments

Pool Vacuum Head with Side Brushes



Equipments

Pool Vacuum Head Aluminum



Equipments

Air Vacuum Vinyl Liner Vacuum

- Softeners
- Filters
- Automatic Controller System
- Automatic Blowdown System
- Automatic Injection and Indicator System
- Automatic injection and Bleeding Control System
- Deionizer
- Dosing Pumps
- Ultra Violet
- Reverse Osmosis
- Test Kits
- **Swimming Pool Accessories:**

Pool Standard Wall Brush (10"), Pool Vacuum Hose (40' x 1.5"), Telescopic Pool Maintenance Pole, Pool Standard Flat Leaf Skimmer Net, Pool Vacuum Head with Side Brushes, Air Vacuum Vinyl Liner, Pool Vacuum Aluminum Head



Technical Support:

Kema House provides technical support services in different departments as follows:

- Water Analysis
- Chemical analysis to check for the performance and operating parameters of the systems
- **Bacteriological tests each month for:**
 - Check for the presence of coliforms
 - Determining the total bacterial count
 - Legionella Pnemophilla (LP) test to confirm that the water is free from the LP bacteria
- Electrical and Mechanical maintenance: We will check on the electrical and mechanical performance of the water treatment equipment (**i.e. softeners , pumps, filters, etc...)**
- Training Seminars





“ DODHIA CHEM-TEX PVT. LTD. AGENCY CONTRACT ”

KEMA HOUSE COMPANY is the EXCLUSIVE and OFFICIAL distributor of Calcium Hypochlorite produced by DODHIA CHEM-TEX PVT. LTD. in the Egyptian market, and is exclusively authorized by DODHIA CHEM-TEX PVT. LTD. to participate in governmental and non-governmental tenders for Calcium Hypochlorite on behalf of DODHIA CHEM-TEX PVT. LTD.

Dodhia Chem-Tex Pvt. Ltd. is one of the leading manufacturers and exporters of Calcium Hypochlorite 65% and 70% in India since 1985. “Hi-Clear” is their registered brand for high-quality Calcium Hypochlorite. Their Calcium Hypochlorite is made through the latest sodium process technology for higher purity and stability.



Certifications



ISO 9001:2015
Certification



ISO 14001:2015
Certification



ISO 45001:2018
Certification



Ocean Bound
Plastic Certification



Global Recycled
Standard Certification



Who is Behind This Legacy?

We are thrilled to mention **Dr. Amany Abd El-Majeed**, the **Founder/Owner and on-going CEO** who built Kema House Company from scratch - **since 1998**.

She comes to us with a very professional and specialized background in the water treatment field, and her passion for continuing leading the water treatment field and market is contagious.

Management Board:

- Eng. Mahmoud Shabban
- Dr. Rana Shabban
- Eng. Ahmed Magdy
- Eng. Mahmoud Samir
- Eng. Ahmed Samir
- Mr. Shabban Wahid
- Mr. Ali Shabban

Contact Information:

Phone No.: +2012 2546 0143
+2010 1499 9998
+2011 2119 1126

Fax No.: 2787 7269

Address: 83 Al Geesh St., Attabba Sq. –
Downtown, Cairo, Egypt

E-Mail: Kemahouse@outlook.com

Website: www.kemahouse.com



X Plus Trading Company Linking needs, Building success

In the world of manufacturing, success starts with choosing the right supplier. That's where XPlus Trading Company comes in a leader in commercial agencies and industrial supplies, placing quality and reliability at the heart of everything we do.

Since our establishment, we have been dedicated to providing pharmaceutical, food, and cosmetics factories with high-performance equipment and materials, including:

- Advanced electrical and mechanical equipment.
- Stainless steel pipes with corrosion resistance.
- All types of valves.
- High-durability pharma grade silicone hoses.
- Industrial and water filtration systems.



We are the authorized distributor for globally trusted brands such as

Supmea – Rebecca – Acetech – Eternal Water, ensuring innovative solutions and results that exceed expectations.

Supmea®

**R 利百加
rebecca**

ACETECH

恒水 Eternalwater®

At **XPLus**, we don't just deliver products — we build long-term partnerships based on trust, exceptional service, and competitive pricing. We believe our clients' success is our success, which is why we continuously develop solutions that meet market needs and embrace the latest technologies.



CONTACT US TODAY AND LET US BE YOUR TRUSTED PARTNER ON THE PATH TO INDUSTRIAL EXCELLENCE.

- 0110 159 8738
- 0112 775 5244
- 0110 159 8746
- info@xplus-eg.com
- sales@xplus-eg.com
- www.xplus-eg.com



Nassar Plastic:
Shaping Infrastructure
with Sustainable
Piping Systems

Nassar Plastic & Pipe Factories were established in 1982 by Chemist Mr. Elsayed Ahmed Ismail Nassar, a pioneer in the Egyptian plastic industry whose expertise dates back to 1956. With a vision to introduce world-class piping systems to the local market, Mr. Nassar laid the foundation of a company that has since grown into one of the most reputable names in the field of plastic pipe manufacturing.

The company began operations in Tenth of Ramadan City, before relocating to El Obour City, a major industrial zone that enabled greater production capacity and faster distribution networks. Over the years, Nassar Plastic has gained recognition for its dedication to quality, innovation, and customer satisfaction, making it a trusted supplier to both public and private sectors.

Today, the head office is located at 116 Othman Ibn Affan Street, Heliopolis, Cairo, while the factories operate in the First Industrial Zone, El Obour City. With advanced machinery, skilled engineers, and more than four decades of experience, Nassar Plastic continues to lead Egypt's plastic pipe industry.

The company's mission is to deliver sustainable and reliable piping solutions that comply with international standards, supporting infrastructure development, housing, industrial projects, and energy systems across Egypt and international markets.

Vision, Mission & Core

Nassar Plastic operates under a clear vision: to be a leading provider of innovative and sustainable plastic piping systems in Egypt, the Middle East, and Africa.

The company's mission is to provide high-quality, cost-effective, and environmentally friendly piping solutions that serve communities, industries, and governments.

Its core values include:

- **Quality First:** Ensuring all products meet international standards.
- **Innovation:** Continuous improvement in product design and performance.
- **Customer Commitment:** Building long-term partnerships based on trust.
- **Sustainability:** Promoting eco-friendly solutions and responsible manufacturing.
- **Excellence:** Striving for leadership in every project and every market.

Company Activities

- The scope of Nassar Plastic extends beyond



production. The company provides integrated solutions that cover design, manufacturing, and after-sales support.

- Manufacturing of UPVC Pipes for potable water, sewage, drainage, cable protection, and household connections.
- Production of PPR Pipes for hot and cold water in residential, commercial, and industrial buildings.
- Production of PPH Pipes for heavy-duty industrial projects such as chemical plants and power stations.
- Manufacturing of fittings and accessories to ensure seamless system integration.
- Research & Development for continuous innovation.
- Technical Consultation & Training to help clients choose the right products and install them effectively.



Major Projects and Strategic Partners

Over its long history, Nassar Plastic has contributed to some of the largest and most ambitious projects in Egypt and abroad. The company's reputation is built on strong partnerships with leading contractors, consulting firms, and government authorities.

Partners in Egypt:

- Arab Contractors (El Mokawloon El Arab)
- Hassan Allam Construction
- General Authority for Educational Buildings
- Administrative Capital for Urban Development (ACUD)
- Elsewedy Electric
- Ministry of Electricity & Renewable Energy – Egyptian Electricity Transmission Company
- Group of Egyptian Consultants
- National Organization for Potable Water & Sanitary Drainage (NOPWASD)
- Misr Consult
- Engineering House of Expertise
- Prof. Dr. Sameh Abdul Gawad – Consulting Office
- Advance Water Treatment Company
- Al Marasem Development
- ACE Consulting Engineers – Moharram Bakhoun
- El Hazek Construction
- Sabbour Consulting
- Memaar Al Morshedy
- Telecom Egypt
- Degla Real Estate Investment

International Projects:

In Iraq, Nassar Plastic contributed to:

- Mako Project
- Zain City
- Kurdistan City
- Kirkuk City
- Basra City

In Sudan, through official agents:

- Merowe Dam Project
- Water Supply Network in Red Sea State
- Water Network in Gedaref State

These projects highlight Nassar Plastic's ability to deliver at scale, adapt to diverse environments, and maintain international quality standards.

Research & Development and Quality Assurance

One of the company's strongest assets is its R&D and quality assurance department. Every stage of production is monitored to ensure compliance with Egyptian and international standards such as ISO certifications.

All raw materials are carefully selected and tested for durability, strength, and chemical resistance. Products undergo rigorous pressure testing, impact testing, and environmental resistance tests to ensure their suitability for real-life conditions.

Nassar Plastic also invests in modern laboratories and advanced testing equipment, allowing the company to continuously upgrade its technology and develop new solutions. This commitment to innovation ensures that the company's products remain competitive and reliable across multiple sectors.

Company Products

UPVC Pipes

- **Applications:** potable water, sewage, drainage, cable protection, household connections.
- **Features:** corrosion resistance, lightweight, easy installation, long life span.
- **Range:** 20 mm to 400 mm diameters manufactured to international standards.

PPR Pipes

- **Applications:** hot and cold water systems for homes, offices, and factories.
- **Features:** high pressure and temperature resistance, hygienic, eco-friendly, safe for drinking water.

PPH Pipes

- **Applications:** industrial uses including chemical industries and power plants.
- **Features:** high mechanical strength, chemical resistance, long durability in harsh environments.

Fittings and Accessories

Complementary fittings, joints, and spare parts manufactured in-house.

Customized accessories available for unique project requirements.

By offering this full range, Nassar Plastic is a one-stop provider for plastic piping solutions.

Sustainability & Environmental Responsibility

Nassar Plastic places a strong emphasis on sustainability and eco-friendly manufacturing. Its products are designed to reduce water leakage, minimize energy consumption, and ensure safe water transport. The company continuously works to adopt greener production processes, reduce plastic waste, and recycle materials wherever possible. By providing long-lasting pipes, Nassar helps reduce the environmental impact of frequent replacements and repairs. This commitment aligns with global trends towards sustainable construction and infrastructure development.

Future Expansion & Global Ambitions

Looking ahead, Nassar Plastic aims to expand its presence in Africa, the Middle East, and Europe. The company plans to introduce more advanced piping technologies, increase exports, and form partnerships with international contractors and consultants.

The future vision includes:

- Expanding export markets beyond Iraq and Sudan.
- Investing in digital transformation for smarter operations.
- Developing next-generation eco-friendly piping systems.
- Strengthening partnerships with governments for national infrastructure development.

With its solid foundation, skilled workforce, and innovative spirit, Nassar Plastic is well-positioned to achieve sustainable growth and continue its leadership in the industry.



Contact Information

Head Office

116 Othman Ibn Affan Street, Heliopolis, Cairo, Egypt

• **Tel & Fax:** (+202) 27740249 – 27740248

Factories

El Obour City – First Industrial Zone – Northern Extension, Block 12014, Plot 15

• **Tel:** (+202) 25785480 – 44891587

• **Fax:** (+202) 44891587

Mobile Numbers

• **Export Department:** +20 115 889 3774

• **Projects Management:** +20 101 938 887

• **Marketing:** +20 101 889 9934

Email Addresses

• **General Inquiries:** info@nassarplastic.com

• **Projects Department:** project@nassarplastic.com

• **Export Department:** salah.tawfik@nassarplastic.com

• **Marketing Department:** marketing@nassarplastic.com

• **Website** www.nassarplastic.com



AquaEnergy Expo

M a g a z i n e

Blue | Green | Sustainable | Smart



WATER NEWS BRIEF

October| 2025

www.aquaenergyexpo.com

DuPont Water Solutions Launches WAVE PRO for Ultrafiltration Modeling

DuPont Water Solutions has launched WAVE PRO, an advanced online modeling tool for ultrafiltration (UF) water treatment applications, including drinking water and seawater desalination. This tool aids water professionals in designing efficient UF systems with a powerful calculation engine, allowing users to adjust parameters and evaluate different scenarios for optimal configurations. WAVE PRO is user-friendly, compatible with existing WAVE users, and accessible from any device. Available for free on DuPont's WaterApp, it supports sustainability by reducing the need for pretreatment chemicals and enhancing operational efficiency in water purification across various sectors globally.



Xylem and Amazon Partner on Smart Water Upgrades to Save More Than 1.3 Billion Liters Annually in Mexico



Residents of Mexico City and Monterrey will experience improved water supply reliability due to significant infrastructure upgrades aimed at conserving over 1.3 billion liters of water annually. In collaboration with Xylem and Amazon, both cities will implement the Xylem Vues software platform to detect leaks and reduce water losses. This initiative is expected to save over 800 million liters in Mexico City and 560 million liters in Monterrey each year. By leveraging data and technology, the project aims to enhance urban water management and address water scarcity challenges, particularly benefiting vulnerable communities.

Thames Water: Five Million Wet Wipes Dug Out in Clean-up of London's 'Wet Wipe Island'

The Port of London Authority, in collaboration with Thames Water and Thames21, has successfully removed approximately 5 million wet wipes from a 250-meter island on the Thames near Hammersmith Bridge. The cleanup, which took three weeks, also collected 114 tonnes of various debris, including clothing and even dentures. This initiative highlights the environmental damage caused by flushing non-biodegradable items. The project aims to protect the river's health and wildlife, coinciding with government efforts to ban plastic-containing wet wipes. Stakeholders emphasize the need for behavioral changes to prevent future pollution.



SWPC is pleased to announce the receipt of three bids from the private sector for the development of the Riyadh–Qassim Independent Water Transmission Pipeline (IWTP) Project

The Saudi Water Partnership Company (SWPC) has received three bids for the Riyadh–Qassim Independent Water Transmission Pipeline (IWTP) Project. Bidders include a consortium comprising AlJomaih Energy, Alkhorayef Water, and others, as well as Lamar Holding and Vision International Investment Company. The IWTP aims to enhance water infrastructure, supplying 685,000 cubic meters of drinking water daily over 859 kilometers, with bi-directional flow. The project includes six storage tanks in Riyadh and 32 along the route, integrating solar power to reduce emissions. Commercial operations are expected to start in Q1 2030, with a 35-year concession period.



Acciona Reaches Commercial Operation for Three Major Sewage Treatment Plants in Saudi Arabia



Acciona, alongside partners Tawzea and Tamasuk, has achieved the Project Commercial Operation Date (PCOD) for three sewage treatment facilities in Saudi Arabia: Madi-nah-3, Buraydah-2, and Tabuk-2. This milestone confirms the completion of construction and the readiness of the plants for operation, now managed by the Operations & Maintenance consortium. Together, the facilities will treat 440,000 cubic meters of wastewater daily, significantly improving water reuse. The treated water will primarily support agricultural applications, with 95% allocated for this purpose, aligning with Saudi Arabia's Vision 2030 goals for enhanced

Smartvatten acquires LeakLook to deliver scalable, innovative water monitoring solutions across Europe

Smartvatten, a leader in digital water management, has acquired Finnish company LeakLook, enhancing its position in Europe's commercial real estate water monitoring market. This acquisition will integrate LeakLook's expertise in sub-metering and IoT-enabled monitoring into Smartvatten's offerings, expanding its team to 150 employees. Together, they monitor water flows in over 40,000 properties across 30 countries. The partnership aims to develop advanced IoT monitoring and AI analytics to identify leaks and inefficiencies, addressing water scarcity challenges. LeakLook's technology will be distributed through Smartvatten's network, benefiting various sectors, including real estate and utilities.



Global Water Events

Pump Industry Awards 2025

Date: 13 March 2025

Location: The Hilton at St. George's Park, Burton upon Trent, UK

The Pump Industry Awards is now recognised as one of the leading award ceremonies within the industrial arena. Founded by the BPMA in 2000, the awards programme celebrates the achievements of pump companies and individuals who strive to go the extra mile.

Website: www.pumpindustryawards.com



WaterReuse 2025 Symposium

Date: From 16 to 19 March 2025

Location: Tampa, FL, United States

The Annual WaterReuse Symposium offers the most extensive learning opportunities in water recycling, addressing topics such as policy, technology, operations, and communications for various applications, including irrigation, potable reuse, on-site systems, and industrial processes. In 2025, we celebrate the 40th anniversary of the WaterReuse Symposium, with this year's theme being Turning the Tide Toward Reuse.

Website: watereuse.org



7th International Conference and Exhibition Desalination Latin America

Date: From 19 to 20 March 2025

Location: Santiago, Chile

2 days congress, International investment conference and exhibition is the only business platform to develop effective strategies, share experience, present new investment projects and innovations, consolidate the efforts of governments and businesses to implement desalination projects and increase water reserves throughout Latin America.

Website: desalinationlatinamerica.com



Smart Water Systems Conference

Date: From 15 to 16 April 2025

Location: Hilton London Kensington, London

SmartWaterSystems is a two-day conference which aims to assist water utility companies, solution/service providers, government officials and finance/investment companies to collaborate, network and examine new technologies and latest developments to ensure more efficient leakage detection and management.

Website: www.smgconferences.com



FiltXPO 2025

Date: From 29 to 1 May 2025

Location: Tampa, FL, United States

FiltXPO™ 2025 at the Miami Beach Convention Center in Miami Beach, Florida, invites you to explore the future of filtration technologies and innovations. Discover the latest advancements from top-tier exhibitors and gain insights into the factors shaping the filtration market. Stay ahead of the competition by learning from industry leaders and positioning yourself as a key player in the field.

Website: www.filtxpo.com



Global Water Summit

Date: From 4 to 7 March, 2025

Location: West Palm Beach, Florida

In a world that has crossed the 1.5°C threshold, water security faces unprecedented pressure. The challenge requires an immediate and sharp increase in capital deployment into our sector. At GWS2025, we're bringing together the leaders who can make this happen.

Website: www.watermeetsmoney.com



Watertech China

Date: From 3 to 5 June 2025

Location: National Exhibition & Conference Center, Shanghai, China

WATERTECH CHINA, a global exhibition platform for water treatment, environmental protection, and energy-saving solutions, returns to the National Exhibition & Convention Center (NECC) in Shanghai, China, from June 3 to 5, 2025.



Website: www.watertechsh.com

IFAT Africa

Date: From 8 to 10 July 2025

Location: Gallagher Convention Centre, Johannesburg, South Africa

IFAT Africa is a three-day trade fair dedicated to presenting cutting-edge technologies and solutions for water, sewage, waste, and recycling tailored to the sub-Saharan African market. Serving as a vital gateway, it connects international companies with the African market and enables African enterprises to access global opportunities. The event brings together key industry players, senior buyers, and decision-makers, fostering collaboration and innovation across the region.



Website: ifat-africa.com

Indo Water Expo & Forum 2025

Date: From 13 to 15 August, 2025

Location: Jakarta International Expo, Kemayoran, Indonesia

Indonesia's water, wastewater and recycling technology event returns with international pavilions, technical product presentations and B2B business matchmaking.

Website: indowater.com



World Water Week

Date: From 24 to 28 August 2025

Location: Stockholm, Sweden

World Water Week is a five-day event on global water issues, organized by Stockholm International Water Institute since 1991. World Water Week is a non-profit event, co-created together with leading organizations. It offers an unusual mix of participants and perspectives, with sessions on a broad array of water-related topics, ranging from food security and health, to agriculture, technology, biodiversity, and the climate crisis.

Website: www.worldwaterweek.org



Aquatech Mexico 2025

Date: From 2 to 4 September 2025

Location: Mexico City, Mexico

Discover water innovation at Aquatech Mexico 2025, a premiere event connecting professionals, experts, and investors across the Americas. Over three intensive days, September 2-4, participants engage in business networking, knowledge exchange, and exploration of regional water technology opportunities. This dynamic platform facilitates valuable partnerships and insights into the Americas' water technology market.

Website: www.aquatechtrade.com



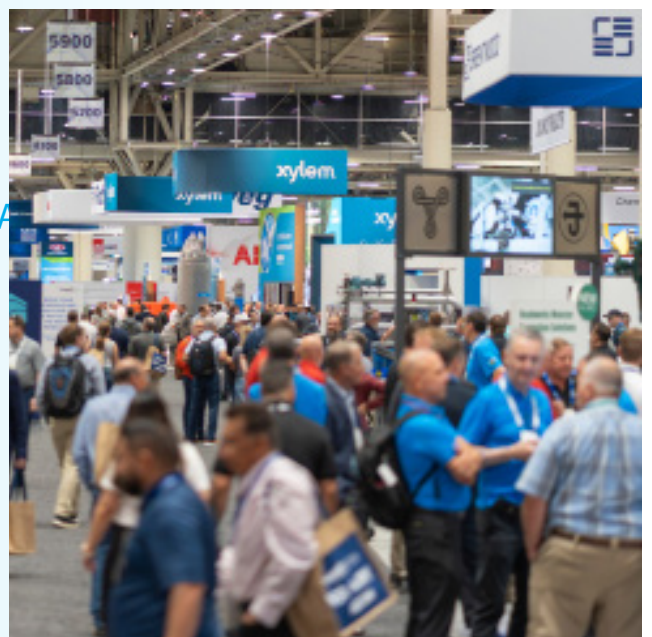
WEFTEC 2025

Date: From 27 September to 1 October, 2025

Location: McCormick Place, Chicago, Illinois, USA

WEFTEC 2025 is the premier water industry event in North America. Connect with over 20,000 water professionals from 100+ countries and 50+ industries, driving solutions and innovations for a sustainable water future.

Website: www.weftec.org



London Climate Technology Show

Date: From 1 to 2 October 2025

Location: ExCeL London, London, UK

The London Climate Technology Show is a two-day event focussing on the climate technology sector. Building on the achievements of previous editions, the event will provide a platform for showcasing disruptive solutions and fostering discussions on effective decarbonisation strategies. The London Climate Technology Show aims to be the largest climate technology exhibition and conference in the world for advancing the global net zero economy transition and shaping a sustainable future with groundbreaking and collaborative technologies.

Website: climatetechshow.com



AQUATECH China

Date: From 5 to 7 November 2025

Location: Shanghai New International Exhibition Center (SNIEC), Shanghai, China

Aquatech China is a three-day event that brings together the worlds of water technology and water management, aiming to present integrated solutions and holistic approaches to water challenges that Asia is facing. Aquatech China is the leading water technology trade show in China, covering all aspects of water: drinking water, industrial water, waste water treatment, sludge treatment, smart water solutions and water management.

Website: www.aquatechtrade.com



All Ireland Water & Wastewater Expo

Date: 4 December, 2025

Location: Leopardstown Pavilion, Leopardstown Racecourse, Foxrock, Dublin 18, D18 C9V6, Ireland

The All-Ireland Water & Wastewater Expo is a one-day conference uniting stakeholders to discuss key issues in the water sector. With €6 billion allocated through 2026, investments will enhance infrastructure and treatment facilities. Industries face rising demands for high-quality water, driving investments in efficiency and sustainability initiatives.

Website: www.waterengineering.ie





AquaEnergy Expo

Florida, USA

250K+
Followers

60K+

Mailing List



11k+

YouTube
Subscribers



13k+

Telegram
Subscribers



150k+

Facebook
Subscribers



35k+

WhatsApp
Subscribers



37k +

LinkedIn
Subscribers



190+

Countries



900+

Jobs Offers



16

Employees



5.1M+

Products
Views



1200 +

Companies



15900+

Virtual Expo
Products



13K+

References
Knowledge Hub



200+

Webinars
and Courses



1K+

Articles
and News



15k+

Trainee



www.aquaenergyexpo.com



AquaEnergy Expo

M a g a z i n e

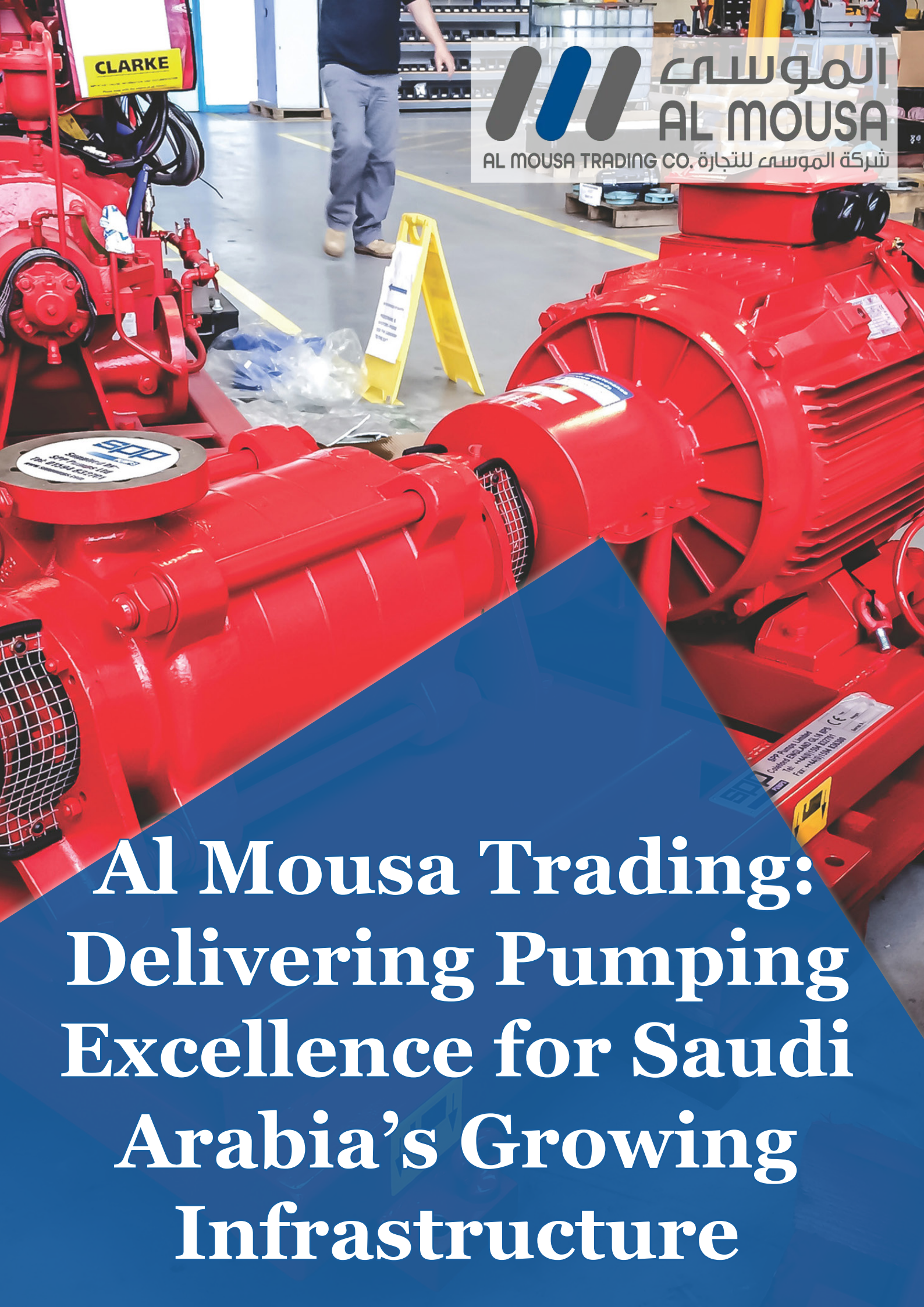
Blue | Green | Sustainable | Smart

Aqua Energy Expo Jobs platform

**Aqua Energy Expo Jobs platform connects
immense and diverse talents in the global
Water and Energy industry .**



www.aquaenergyexpo.com



الموسى
AL MOUSA

شركة الموسى للتجارة AL MOUSA TRADING CO.

Al Mousa Trading: Delivering Pumping Excellence for Saudi Arabia's Growing Infrastructure

From residential communities and hospitals to mega projects and industrial facilities, reliable pumpingsystemsareessentialtoensureefficiency, safety, and sustainability. In Saudi Arabia, where ambitious projects are reshaping cities and entire regions, Al Mousa Trading Co. has emerged as a trusted leader in delivering world-class pump solutions.

Founded in 2017 as part of the Al Mousa Group Ltd., the company builds on more than two decades of expertise in water, energy, and infrastructure. Today, Al Mousa is recognized for its strong technical capabilities, exclusive partnerships with leading global brands, and its ability to deliver tailored pump solutions for diverse applications.

A Wide Range of Pumping Solutions

Al Mousa Trading provides one of the most comprehensive pump portfolios in the Kingdom. Its systems are engineered to meet the highest standards of performance and compliance, addressing the full spectrum of client needs:

- **Booster Pumps:** Ideal for residential, commercial, and high-rise buildings where stable water pressure is critical.
- **Submersible Pumps:** Robust solutions for groundwater extraction, sewage handling, and stormwater management.
- **Firefighting Pumps (UL/FM certified):** Diesel and electric systems ensuring safety in compliance with global fire codes.
- **HVAC and Chilled Water Pumps:** Optimized for energy efficiency in cooling and heating systems.
- **Sewage and Drainage Pumps:** Designed to handle demanding environments and ensure uninterrupted utility operations.



This versatility allows Al-Mousa to support projects ranging from municipal waterworks and hospitals to industrial plants, airports, and urban developments.

Engineering with Pump Performance Curves

Choosing the right pump goes far beyond product availability; it requires deep technical expertise. Al-Mousa's engineers rely on pump performance curves (Q–H curves), which map the relationship between flow rate (Q) and head (H). These curves are essential tools in designing efficient systems, helping to identify the best operating point that maximizes performance while minimizing energy consumption.



By carefully analyzing pump curves in the context of system requirements—such as fluid type, material compatibility, energy efficiency targets, and control options like VFDs (Variable Frequency Drives)—Al Mousa ensures that every pump supplied is not just functional, but optimized for long-term reliability and sustainability.

Key Considerations in Pump Selection

Al Mousa guides its clients through a structured process of pump selection, based on critical factors such as:

- **Application Requirements** – Flow rate, head, and pressure needs differ between domestic supply, fire-fighting, and industrial processes.
- **Material Compatibility** – Stainless steel, cast iron, or bronze pumps are selected depending on water quality and usage conditions.

Comprehensive After-Sales Support

- **Installation & Commissioning Assistance** – ensuring systems start up smoothly and efficiently.
- **Spare Parts Availability** – reliable supply of original components for uninterrupted operation.
- **Preventive Maintenance Plans** – proactive care to extend equipment lifespan and reduce downtime.
- **Engineering Solutions** – expert advice tailored to specific project needs.
- **Emergency Response** – quick, professional support whenever it is needed most.

A Partner in Iconic Projects

Al Mousa's track record speaks for itself.

The company has supplied and installed pumps for some of Saudi Arabia's most high-profile developments, including:

- **King Abdullah International Gardens** – by providing reliable chilling water pumps for this landmark green space.
- **Dr. Sulaiman Al Habib Hospitals** – by supplying chilled water pumps ensuring critical healthcare infrastructure operates smoothly.
- **King Salman Park (Royal Art Complex and Visitor Pavilion)** – booster and chilled water pumps supporting one of the world's largest urban parks.
- **The Red Sea Project and Diriyah Gate** – advanced domestic and fire pump systems for mega projects shaping the Kingdom's cultural and tourism future.

Beyond Pumps: Complete Solutions Under One Roof

While pumps remain at the core of Al Mousa's expertise, the company's capabilities extend far beyond. Clients benefit from after-sales services including installation, commissioning, preventive maintenance, and emergency support, backed by a strong local inventory of spare parts.

In addition, Al Mousa Trading offers thermal & heating systems (boilers, solar panels, heat pumps), piping solutions (PPR, HDPE, PEX, and acoustic systems), and pool & water features (swimming pools, water features, spas, and saunas). The company also offers filtration solutions including Filtralite® Pure for desalination and drinking water treatment and Filtralite® clean for wastewater treatment. This broad portfolio positions the company as a one-stop partner for water, energy, and wellness infrastructure across Saudi Arabia.

“ These achievements highlight Al Mousa's ability to adapt to diverse project requirements while maintaining uncompromising quality. ”





Conclusion

As Saudi Arabia advances toward its Vision 2030 goals, the demand for reliable, efficient, and sustainable water systems will continue to grow. With its unmatched expertise in pumps, strong partnerships with leading global brands, and commitment to engineering excellence, Al Mousa Trading Co. is perfectly positioned to support the Kingdom's most ambitious projects.

By focusing on pumps while offering a full suite of complementary solutions, Al Mousa continues to reinforce its role as a trusted partner for shaping the future of water infrastructure in Saudi Arabia.



AquaEnergy Expo
Magazine
Blue | Green | Sustainable | Smart

الموسى
AL MOUSA
شركة الموسى للتجارة AL MOUSA TRADING CO.

Explore more about
Al-Mousa Trading Co. water
solutions via Aqua Energy
Virtual Expo



YOUR TRUSTED PARTNER IN WATER & ENERGY SOLUTIONS

- **Booster Pumps** – Reliable pressure for residential & high-rise buildings
- **Submersible Pumps** – Groundwater, sewage & stormwater handling
- **Firefighting Pumps (UL/FM)** – Safety you can trust
- **HVAC & Chilled Water Pumps** – Energy-efficient cooling & heating
- **Sewage & Drainage Pumps** – Robust performance for tough conditions

BEYOND PUMPS:

- **Thermal & Heating Systems** (boilers, solar panels, heat pumps)
- **Piping Solutions** (PPR, HDPE, PEX, acoustic)
- **Pools & Water Features** (swimming pools, spas, saunas)
- **Filtration Solutions** – Filtralite® Pure & Clean

BACKED BY GLOBAL EXPERTISE, TRUSTED IN ICONIC SAUDI PROJECTS.

AL MOUSA TRADING CO. – DELIVERING EXCELLENCE FOR SAUDI ARABIA'S INFRASTRUCTURE



**Horizon Chemical: Advancing
Specialty Solutions for
Wastewater Treatment
Across MENA**



Founded with a vision to redefine industrial chemical supply and technical services in Egypt and the wider MENA region, Horizon Chemical has evolved into a trusted partner for high-performance, eco-conscious specialty solutions. With deep sector expertise, an agile trading model, and a growing regional footprint, the company is making a significant impact—particularly in the wastewater treatment sector, where sustainability and efficiency are paramount.

A Strong Foundation in Technical Expertise

From its inception, Horizon Chemical has combined the agility of a local trading company with the depth of a technical consultancy. Serving both commodity and specialty chemical markets, the company's expertise spans water and wastewater treatment, paper & tissue processing, sugar manufacturing, agriculture, construction additives, and more.

Horizon's approach is built on three pillars:

- **Technical Support:** On-site application trials, compliance auditing, and dosage optimization.
- **Customization:** Bespoke chemical formulations tailored to each client's operational needs.
- **Sustainability:** Sourcing and promoting eco-friendly alternatives, from biodegradable polymers to low-toxicity coagulants.

This technical-commercial blend allows Horizon to compete effectively against major players—offer-

ing the same compliance and innovation capabilities but with faster local responsiveness and to outperform local bulk suppliers through value-added services.

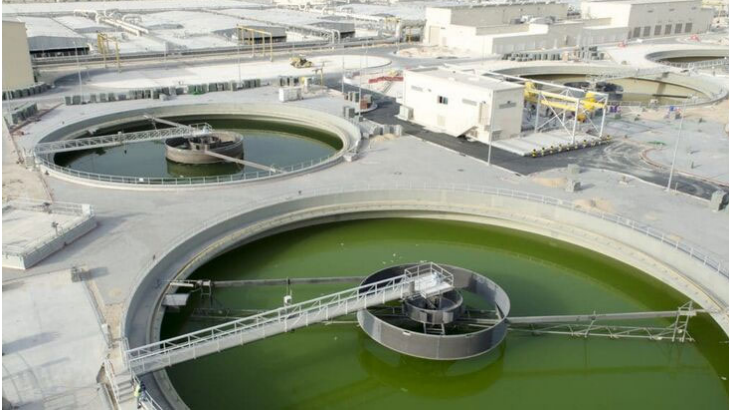
Specialization in Wastewater Treatment

Horizon Specialty Chemicals, the dedicated department for high-performance water solutions, delivers polymers, coagulants, and anti-scalants engineered for municipal and industrial treatment plants.

Horizon offers a complete range of water-soluble polymers **cationic, anionic, and non-ionic** engineered to optimize flocculation and sludge dewatering across industries.

- **Cationic Polymers:** Tailored for organic-rich sludge, these polymers excel in municipal wastewater treatment and the paper industry, enhancing cake dryness, reducing disposal costs, and improving process efficiency.
- **Anionic Polymers:** Optimized for high suspended solids, they deliver superior clarification in mining and marble processing, accelerating settling rates and easing filtration demands.
- **Non-Ionic Polymers:** Specialized for low-charge environments, they enable precise fine-particle separation and sludge thickening in niche industrial applications.

These polymers are tested under local operating conditions, ensuring that dosing rates and



performance are tailored to the unique challenges faced by each client.

Coagulants – Setting the Stage for Clean Water

Horizon supplies both inorganic and organic coagulants, each formulated for rapid destabilization of colloidal particles and removal of color, turbidity, and metals.

- **Aluminium-Based Coagulants:** Highly effective in municipal water treatment and food-grade applications.
- **Iron-Based Coagulants:** Preferred in industrial wastewater scenarios, especially for phosphate removal and color reduction.
- **Eco-Friendly Alternatives:** Plant-derived and low-toxicity solutions that meet strict environmental discharge standards.

Bundled Water Treatment Solutions

Recognizing that chemical supply alone is not enough, Horizon delivers complete treatment packages:

- **Water-Treatment Kits:** Pre-selected combinations of polymers, coagulants, antiscalants, and pH control agents, tailored to each plant's specifications.
- **Technical Service Add-Ons:** Dosing pump calibration, jar testing protocols, and operator training sessions included as part of the package.
- **Compliance Support:** Documentation and laboratory analysis for regulatory submissions, ensuring trouble-free audits.

Market Context & Industry Challenges

The Egyptian and regional water treatment industry is undergoing rapid transformation, driven by infrastructure investments, stricter environmental regulations, and the push for sustainable resource management.

Key Market Drivers:

- **Water Scarcity:** Egypt's annual water deficit exceeds 7 billion m³, prompting investments in both municipal and industrial wastewater reuse.
- **Regulatory Pressure:** New discharge limits and environmental compliance laws demand advanced treatment technologies and chemical solutions that meet global standards.
- **Industrial Growth:** Expansion in sectors such as food processing, petrochemicals, and construction is increasing demand for efficient, sustainable wastewater solutions.

Industry Challenges & Horizon's Response:

1. **Inconsistent Product Quality from Local Suppliers** – Horizon counters this by sourcing from vetted international and local producers, ensuring batch-to-batch consistency.
2. **Limited Technical Support in the Market** – Horizon differentiates itself through on-site consultancy, pilot trials, and post-installation monitoring.
3. **Need for Cost Efficiency Without Compromising Compliance** – By optimizing dosing rates and bundling services, Horizon helps clients achieve both economic and regulatory goals.
4. **Sustainability Expectations** – Horizon's investment in biodegradable polymers and recyclable packaging aligns with global ESG commitments.

By positioning itself as both a supplier and a knowledge partner, Horizon is shaping industry best practices and helping clients stay ahead of regulatory and operational challenges.



Landmark Projects & Industry Impact

Horizon Chemical has built a solid track record with both municipal utilities and private industry leaders:

- **Municipal Sector:** Supply and technical support for large-scale wastewater treatment plants across Egypt and Gulf countries, achieving measurable improvements in effluent quality.
- **Industrial Sector:** Partnerships in food processing, petrochemicals, and manufacturing, focusing on wastewater optimization and compliance.
- **Performance Outcomes:** Clients have reported significant reductions in chemical consumption, improved regulatory compliance, and operational savings.

Driving Progress Through Innovation & Sustainability

Sustainability is embedded in Horizon's growth strategy. The company invests in:

- **Biodegradable & Low-Toxicity Additives** – Minimizing environmental footprint while maintaining performance.
- **Circular Economy Practices** – Introducing recyclable packaging and promoting waste minimization in client operations.
- **Green Product Development** – Working with eco-certified suppliers to launch next-generation water treatment solutions.

These initiatives align with both Egyptian environmental regulations and international ESG commitments, positioning Horizon as a forward-looking industry leader.



Horizon Academy – Building Industry Talent

As part of its Corporate Social Responsibility (CSR) program, Horizon established Horizon Academy, a free training platform dedicated to upskilling engineers, plant operators, and young professionals.

- **Courses & Webinars:** Covering topics like chemical handling, wastewater process optimization, and compliance management.
- **Industry Partnerships:** Collaborations with universities and technical institutes to bridge the labor skills gap.
- **Impact:** Thousands of trainees have benefitted from the program, with many securing roles in key industrial sectors.

This initiative not only supports workforce development but also strengthens client relationships through shared knowledge and best practices.





Regional Presence & Strategic Growth

Horizon Chemical's regional footprint reflects both proven capability and ambitious vision. From its headquarters in Egypt—supported by its UAE-based arm, Horichem—the company has established strong commercial and technical networks that extend across the Middle East and Africa.

Our strategic growth plan focuses on building sustainable, high-value market positions by:

- **Deepening Presence in Core Markets:** Strengthening partnerships with utilities, industrial leaders, and government bodies in existing operational regions to reinforce Horizon's role as a long-term technical partner.
- **Expanding into High-Potential Economies:** Proactively identifying markets where industrial development, infrastructure investment, and environmental regulations create a demand for advanced specialty chemicals particularly in water and wastewater treatment.
- **Leveraging Local Partnerships:** Forming alliances with distributors, service providers, and industry bodies to ensure market entry is underpinned by local insight, regulatory alignment, and immediate technical support capabilities.
- **Integrating Digital & Technical Outreach:** Combining in-market sales engagement with digital platforms, technical webinars, and CRM-driven follow-ups to accelerate awareness, trust, and lead conversion.

By aligning expansion decisions with data-driven market intelligence, local compliance frameworks, and customer needs analysis, Horizon Chemical is not simply entering new territories—it is positioning itself as a regional leader in sustainable industrial chemical solutions, ready to deliver measurable value from day one.

Conclusion

Horizon Chemical's journey is a testament to how a locally rooted company can compete on a regional and global scale through a combination of technical excellence, sustainability, and agility. In wastewater treatment, the company is not just a supplier—it is a technical partner helping industries and municipalities achieve cleaner water, better compliance, and long-term operational efficiency.

Contact Horizon Chemical



<https://www.facebook.com/Horizon.Chemical.Group/>



<https://horizon-chemical.com/>



info@horizon-chemical.com



<https://www.linkedin.com/company/horizon-chemical-group/>



Egypt [+203 5436517]
UAE [+971 56 6067949]

Are you looking for new customers?

Join Aqua Energy Virtual Expo and
increase your sales

Joining our Virtual Expo will help you
to increase your customers network, grow
your sales, publish your brand, find new
distributors, agents and open new markets

COUNTRIES 190+

COMPANIES 1200+

PRODUCTS 15900+

www.aquaenergyexpo.com

The background of the slide is a composite image. At the top, a realistic image of the Earth from space is shown within a white, arched frame. Below this, a large industrial facility, likely a power plant or refinery, is depicted. Several tall smokestacks are visible, each emitting a thick plume of white smoke that rises into the sky. The facility itself is a complex of various structures, including pipes, tanks, and scaffolding. The overall scene suggests a connection between environmental stewardship (represented by the globe) and industrial operations (represented by the factory).

Integrating Modern Wastewater Treatment and Odor Control

Wastewater treatment facility operators and stakeholders face an urgent and complex set of challenges. Whether managing an aging municipal plant or designing a new industrial facility, the demand for reliable, cost-effective, and environmentally compliant solutions has never been higher. The traditional one-size-fits-all approach is no longer viable. The core of the issue lies in the vulnerability of biological treatment, the foundation of most wastewater processes, and its limitations when faced with the complexities of modern effluents, particularly the environmental and health hazards posed by odor and volatile organic compound (VOC) emissions. These emissions not only lead to community complaints and negative public perception but also present significant risks to worker health and regulatory compliance. Therefore, overcoming these challenges requires a comprehensive, integrated approach that addresses both liquid-phase pollutants and airborne contaminants.



Biological Treatment: The Heart of the Matter

Biological treatment is the workhorse of wastewater management. It's the primary technology used in municipal facilities and is integrated into many industrial processes.

Common Disturbances and Their Impacts

Several problems can plague activated sludge systems. Bulking, a filamentous overgrowth, results in poor settling and turbid effluent. Foaming, often from certain bacteria or surfactants, creates thick foam on the tank surface.

Rising sludge is caused by nitrogen gas bubbles from denitrification in the clarifier, leading to solids

floating to the surface. When sludge is too "young" or has a high food-to-microorganism ratio, it can form pin floc, which doesn't settle well and results in cloudy effluent. More severe issues like whitening, or biomass die-off, occur after a toxic shock, while autolysis happens when sludge is too old.

Finally, hydraulic overload can cause a washout, where the valuable microbial population is lost, leading to rapid effluent deterioration.



Core Solutions for a Robust System

- **Process Parameter Adjustment:** A key strategy is to carefully adjust process parameters. By controlling the food-to-microorganism (F/M) ratio and maintaining optimal dissolved oxygen (DO) levels, operators can ensure the microbial community has the right conditions to thrive and handle organic loads effectively.

- **Bio-Augmentation:** Introducing specialized microbial cultures through bio-augmentation is a powerful tool. It helps the system recover quickly from upsets and can introduce new capabilities to break down pollutants that the native microbes can't handle. This practice strengthens the overall microbial ecosystem and its resilience.

- **High-Efficiency Pre- and Post-Treatment:** The entire system benefits from integrated, high-efficiency equipment. Pre-treatment systems remove problematic solids like grit and grease, protecting the biological core. Post-treatment processes for final polishing and disinfection guarantee that even with minor upsets, the final effluent meets compliance standards.

By combining precise process control, the strategic use of bio-augmentation, and advanced equipment, operators can move from simply reacting to

problems to proactively ensuring the long-term stability and performance of their facility.

In industrial and agricultural wastewater, the presence of non-biodegradable or inhibitory compounds often means that biological treatment alone is insufficient. This creates an urgent need for solutions that can enhance and support biological processes, ensuring stability and performance.

A Comprehensive, Integrated Suite of Technologies

We bridge these gaps with a comprehensive, integrated suite of technologies that tackle every stage of the treatment process, from biological recovery to advanced oxidation and high-performance air filtration. Our solutions are designed to be field-proven, modular, and easy to operate.



1. Biological Optimization: Stabilizing and Expanding Existing Systems

A-Ready-to-Work Units:

- 1-Sternova Compact Unit (SCU)
- 2-Sternova Bio Plus (SBP)

These modular biological systems can be deployed rapidly to restore or supplement biological capacity. Instead of expanding tanks or building new basins, our clients can scale their biological treatment via these compact, rapidly deployable units. This is particularly valuable for facilities with space constraints or limited capital.

B-Bio-augmentation Programs:

We provide resilient, tailored microbial cultures that can be introduced to the wastewater stream to ensure a fast recovery from biomass shocks and maintain long-term biological stability.

2. When Biology Hits Limits: Advanced Chemical and Odor Treatment

Not all wastewater problems can be solved with biology. Many industrial streams contain hard-to-degrade compounds and volatile solvents that require chemical intervention. This is also where odor control becomes a primary focus.

When biological treatment reaches its limits, particularly with hard-to-degrade industrial waste, it's essential to integrate complementary technologies. Our solutions incorporate advanced chemical oxidation processes like Fenton oxidation or ozone-based systems. These technologies break down stubborn pollutants that the biological system cannot, enabling a comprehensive treatment solution.

Sternova's Comprehensive Technical Overview

Sternova specializes in advanced environmental solutions designed to address the most pressing issues in water and wastewater treatment, odor and air quality management, and solid waste handling. The company applies a scientific, problem-solving approach tailored to each client's operational needs and regulatory requirements.

Sternova's approach is rooted in a three-pillar framework: water, air, and solid waste. This integrated strategy is designed to provide comprehensive, science-based solutions that address the full spectrum of environmental challenges for municipalities, industrial facilities, and real estate developments.



A-Water and Wastewater Solutions

Sternova offers a suite of innovative water and wastewater technologies, each tailored to specific needs:

1-Sternova Compact Unit (SCU): This fully automated, compact system is ideal for sites with limited space, like hotels or hospitals. Its low sludge production and minimal need for human intervention translate to significant cost savings and land conservation.

2-Sternova Bio Plus (SBP): As an enhanced biological reactor, the SBP uses a high Specific Surface Area media with special aeration system to boost the capacity of existing treatment stations. This allows facilities to handle higher organic loads, reduce hydraulic retention time, and lower energy consumption without extensive civil work.

3-High-Rate Clarification (Microsand Sedimentation): By using Microsand as a ballast, this process significantly reduces the treatment area and time required compared to traditional settling tanks, while effectively handling challenging water sources like those with low temperature, high salinity, or algae.

4-High-Density Inclined Plate DAF: This dual-action unit combines flotation and inclined plate sedimentation, allowing it to remove both lighter and heavier contaminants. Its compact footprint makes it a superior alternative to conventional DAF.

5-Magnetic Coagulation: This deep water purification method uses magnetic particles to form dense flocs with pollutants, enabling rapid settling and removal of suspended matter, algae, and bacteria. The magnetic powder is recycled, making it an efficient and sustainable process.

6-Advanced Oxidation Process (AOP) Systems: Our AOP systems use a combination of technologies (ozone, hydrogen peroxide, UV) to break down persistent organic pollutants (POPs) at the molecular level, effectively treating industrial wastewaters with high Chemical Oxygen Demand (COD) and other difficult-to-treat constituents. These systems can also be instrumental in destroying VOCs in the liquid phase before they volatilize.

7-Electrodialysis (EDI) Systems: This chemical-free technology uses electricity and specialized membranes for ion separation. EDI is vital for large-scale desalination and recovering valuable resources like heavy metals from wastewater, turning waste into a resource.

8-On-site Disinfection: Public health and safety are non-negotiable. Our on-site generators produce disinfectants like chlorine or ozone needed. This eliminates the safety risks and costs of transporting and storing hazardous chemicals, while ensuring reliable microbial control.

B-Air Purification and Deodorization

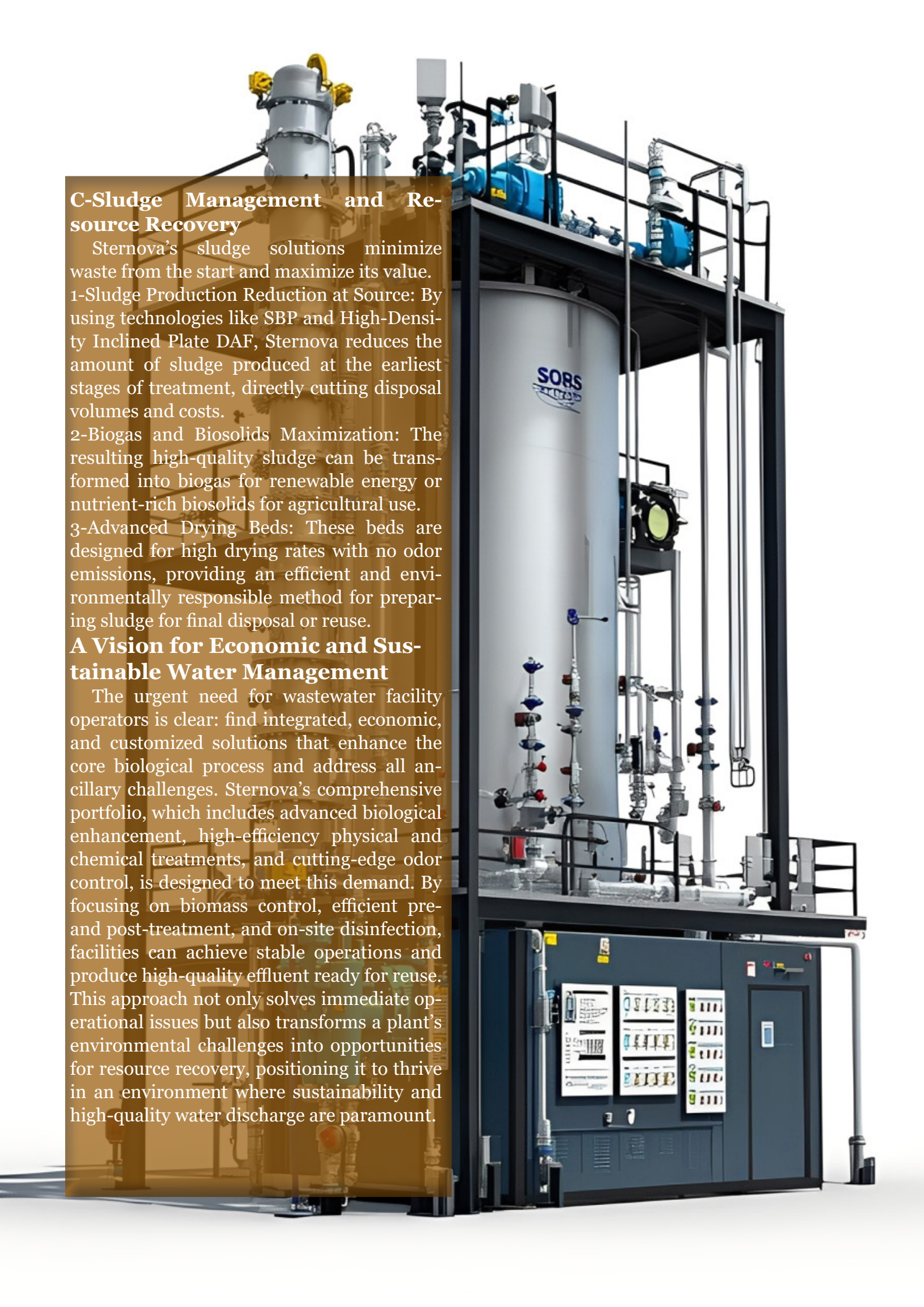
Sternova's air quality solutions target the source of odors and VOCs to ensure lasting elimination.

1-Sternova Odor Removal Systems (SORS): This compact unit uses a countercurrent fogging system with an active media of microorganisms to deliver rapid biochemical degradation of odors and VOCs. It's a fast, potent solution for challenging air quality issues.

2-Ozone Reaction Towers: These towers use ozone's potent oxidative properties to break down persistent organic pollutants and noxious odors in industrial air streams, helping companies achieve regulatory compliance.

3-Soil Biofiltration Deodorization: An eco-friendly and aesthetically pleasing solution, this system uses a biological soil filter that can be landscaped, acting as a "living, breathing air purifier" that naturally removes odor-causing compounds.





C-Sludge Management and Resource Recovery

Sternova's sludge solutions minimize waste from the start and maximize its value.

1-Sludge Production Reduction at Source: By using technologies like SBP and High-Density Inclined Plate DAF, Sternova reduces the amount of sludge produced at the earliest stages of treatment, directly cutting disposal volumes and costs.

2-Biogas and Biosolids Maximization: The resulting high-quality sludge can be transformed into biogas for renewable energy or nutrient-rich biosolids for agricultural use.

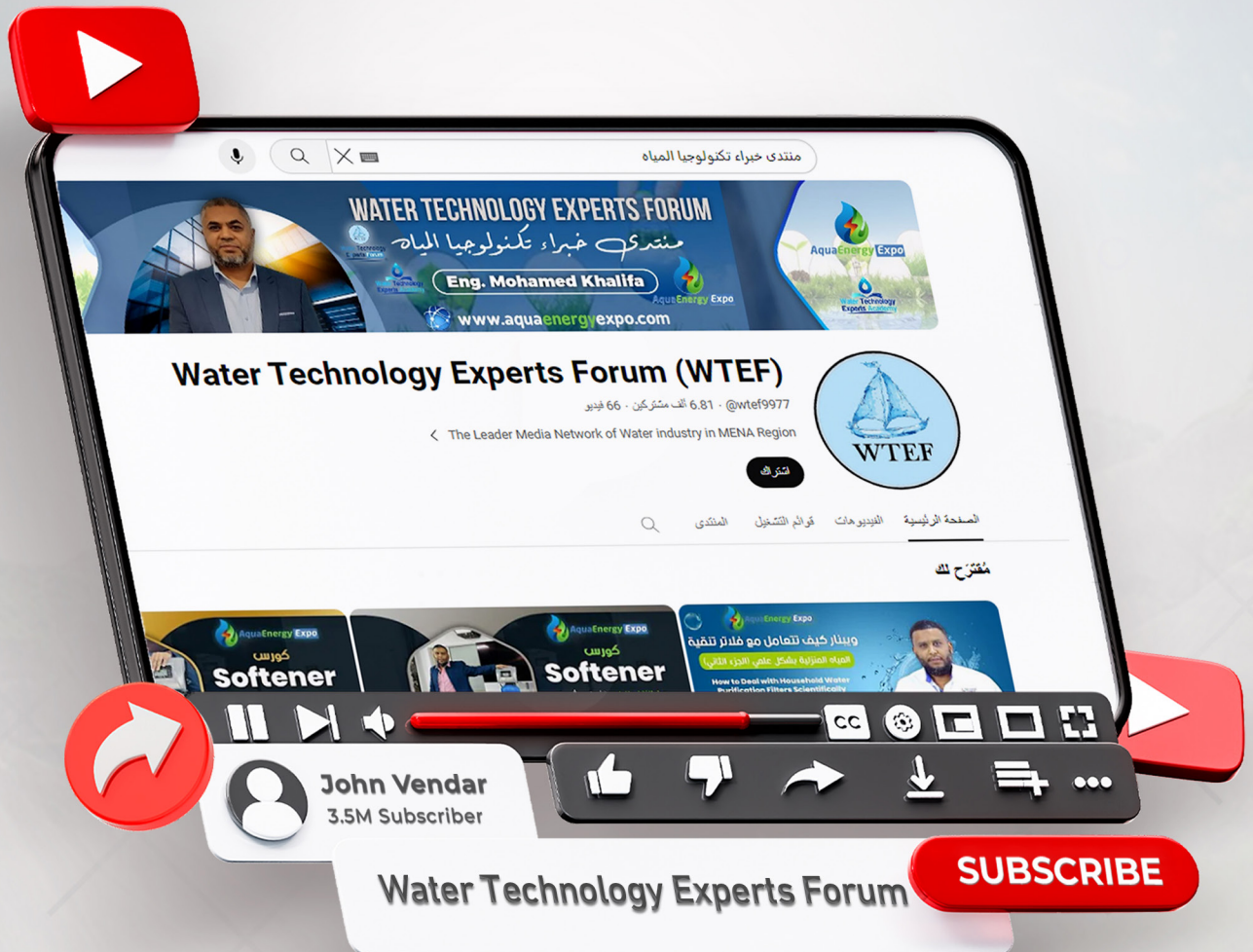
3-Advanced Drying Beds: These beds are designed for high drying rates with no odor emissions, providing an efficient and environmentally responsible method for preparing sludge for final disposal or reuse.

A Vision for Economic and Sustainable Water Management

The urgent need for wastewater facility operators is clear: find integrated, economic, and customized solutions that enhance the core biological process and address all ancillary challenges. Sternova's comprehensive portfolio, which includes advanced biological enhancement, high-efficiency physical and chemical treatments, and cutting-edge odor control, is designed to meet this demand. By focusing on biomass control, efficient pre- and post-treatment, and on-site disinfection, facilities can achieve stable operations and produce high-quality effluent ready for reuse. This approach not only solves immediate operational issues but also transforms a plant's environmental challenges into opportunities for resource recovery, positioning it to thrive in an environment where sustainability and high-quality water discharge are paramount.

Watch more than 200

Online free webinars in the field of
"Water and Energy Engineering and Science"
on our YouTube channel



WEBINARS

Meet our Experts at Aqua Energy Expo Weekly Webinars

Join us on Telegram group for online webinars



Dr. Mohamed Fikry



Friday, October 10th



Date: 8:00-10:00Pm
(Saudi Arabia Time)



Dr. Mohammad A. Hasan



Saturday, October 11th



From 8:30 to 10:30 PM
(Saudi Arabia Time)



Dr. Abu-Alhassan Abd-Elshafi



Saturday, October 18th



From 8:00 to 10:00 PM
(Saudi Arabia Time)



Dr. Salah Ghorab



Friday, October 24th



Date: 8:00-10:00Pm
(Saudi Arabia Time)



Dr. Ahmed Gamal Ali



Saturday, October 25th



08:00 to 10:00 PM
(Saudi Arabia Time)



Eng. Ahmed Khairy



Friday, October 31th



08:00 to 10:00 PM
(Saudi Arabia Time)



Techno Install is a general Agencies & Contracting company specialized in water treatment projects and founded in 1984.

Techno Install systems & equipment have been supplied & installed in all Egyptian governorates & TI have excellent reference with most of companies dealing in water treatment projects as TI maintains its good reputation & leadership in the market.

Techno Install Activities

- Cylinders and injection systems for chlorine gas
- Industrial cranes
- Fiber glass tanks
- General contracting for construction, finishing and electromechanical works
- Water, wastewater and desalination plants

The most important projects





Seyouf Water Treatment Station



Mansheya Water Treatment Station



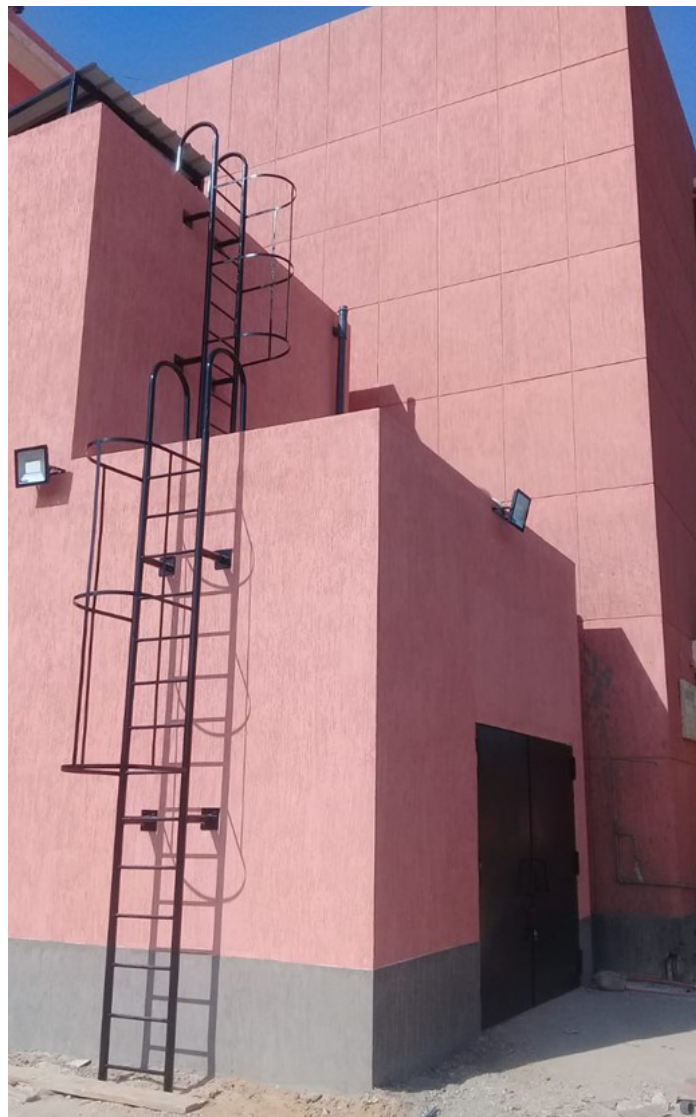
Sharki Water Treatment Station



Baten Water treatment Station – KSA



Dar Al Salam Water Treatment Station



El Amireya Water Treatment Station



El Fostat Water Treatment Station



Hawamdeya Water Treatment Station



Supply & Installation of 12 metering pumps 3200 l/hr. to 4500 l/hr. for Giza WTC.



Supply & Installation of 4 complete chlorine gas injection systems 200 kg/hr. in Embaba WTS for Giza WTC.



East Antara Water Treatment Station



Mansheya Water treatment station



Ismailia Water Treatment Station



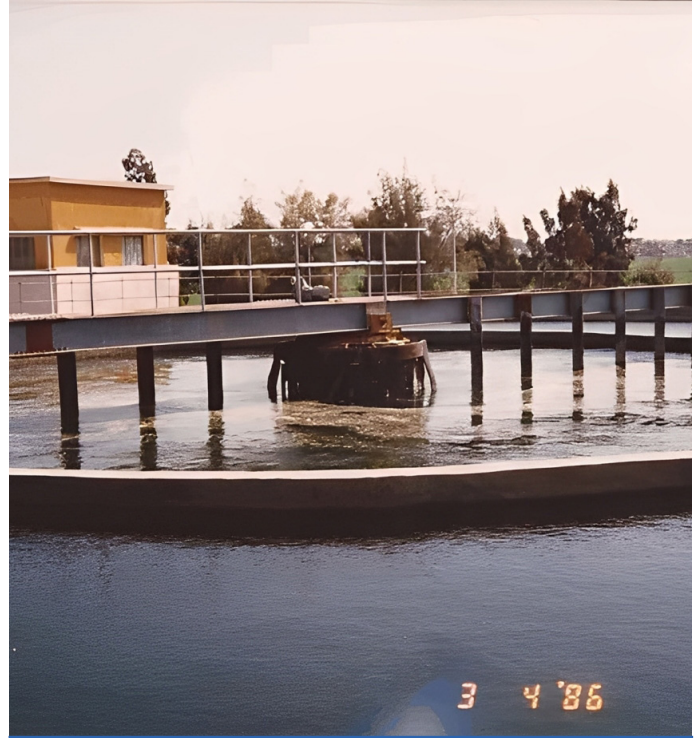
East Antara Water Treatment Station Geziret El Dahab Water Treatment Station



Badrashen Water Treatment Station



KOHAFA WATER TREATMENT PLANT



NEW DAMIETTA WASTE WATER TREATMENT PLANT



EL SALAM CANAL PUMPING STATIONS 1, 2 & 3 - TRANSFORMER STATIONS 1, 2



NUBAREYA & KAFR EL DAWAR WATER TREATMENT PLANTS



PETROLIUM TANKS FOR AGIBA COMPANY

Techno Install Products

- Evaporators
- Chlorine Cabinets with Flowmeter
- Vacuum Regulators
- Ejectors
- Gas Leak Detectors
- Mechanical and Electrical Pressure Reduce Valves
- Analyzer and Controller
- Automatic Switch Over
- Vacuum and Pressure Gauges
- Filters
- Expansion Cylinders

Techno Install Contact

- sales@technoinstall.com.eg
- info@technoinstall.com.eg
- 01289112263
- 01287421491
- 01286118115
- www.technoinstall.com.eg
- www.facebook.com/technoinstall
- <https://www.linkedin.com/company/techno-install1984>



I.S.I.S: Pioneering Digital Solutions for Industrial Innovation and Efficiency

I.S.I.S provides a comprehensive range of digital solutions and services that empower clients to achieve efficiency, scalability, and innovation.

Our key activities include:

- **Computerized Operation and Maintenance management system (COMMS)**

Comprehensive digital platforms for preventive, predictive, and corrective maintenance. Our solutions cover vehicle maintenance, central workshops, plants, networks, and construction projects, ensuring reliability and

cost efficiency. Work orders include full details of assets, workforce assignments, spare parts, permits, and documents, while integrated HSE (health, safety, and environment) procedures guarantee safe execution. These systems enable manufacturers and utilities to minimize downtime, extend asset life, and reduce operating costs.

- **Asset Management Systems:** Evaluate and monitor your assets with real-time condition assessment, risk analysis, and criticality ranking which empowers

smarter asset decisions and extends asset lifecycles.

• Enterprise Resource Planning (ERP)

Our ERP system covers core business functions with flexibility for client-specific needs, including:

- o **Accounting:** manage financial transactions and reporting.
- o **Costing:** control project and operational costs with accuracy.
- o **Human Resources (HR):** handle workforce, payroll, and compliance.
- o **Inventory Management:** track stock, movements, and balances in real time.

• Mobile App Development

Cross-platform and native mobile applications delivering seamless user experiences.

• Customer Relationship Management (CRM)

Development and customization of CRM systems to improve customer engagement and business performance.

• Website Maintenance & Support

Ongoing support, updates, and security services to ensure continuous availability and performance.

• Artificial Intelligence (AI)

Custom AI-powered solutions, from predictive analytics to intelligent automation, designed to align with specific client requirements.

• SCADA Integration

Integration of SCADA systems with IoT and enterprise software for real-time monitoring, control, and enhanced operational efficiency.



Key Projects

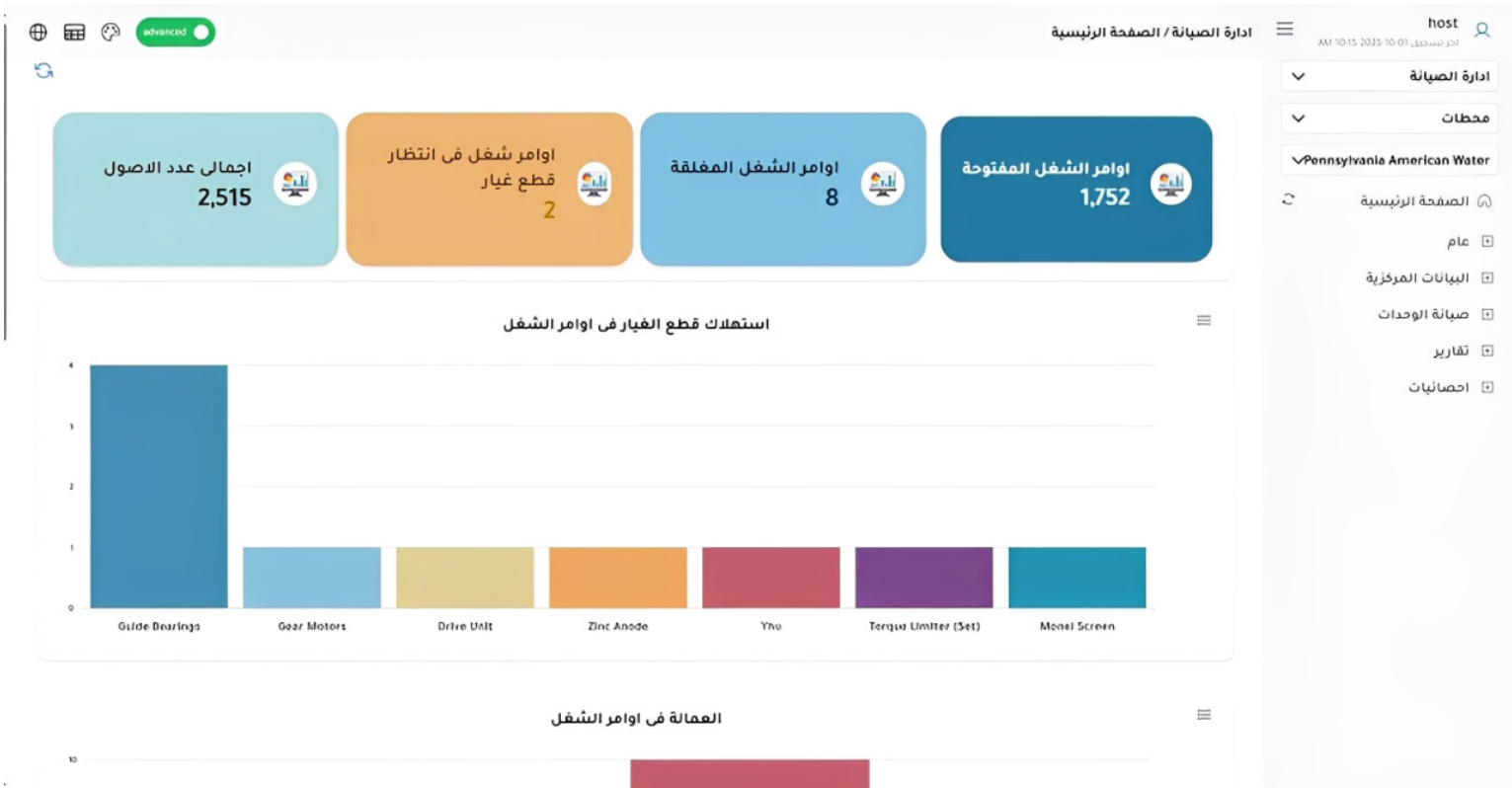
Over the years, I.S.I.S has successfully delivered numerous high-impact projects. Some of the key highlights include:

- **Advanced maintenance management systems** for multiple water and wastewater companies, enhancing operational efficiency and reducing downtime.



- **Asset Management System :** Development of a comprehensive asset management platform for the Mechanical & Electrical Department – Ministry of Water Resources and Irrigation.





• Project Proformance Management System (PPMS)

Deployment of PPMS for the Holding Company for Water and Wastewater, supporting project tracking, reporting, and resource allocation.

• **Fleet Management:** Design and implementation of digital solutions for fleet management, improving utilization and cost control.

• **Customer Relationship Management (CRM):** for Damietta Water and Wastewater Company to strengthen customer engagement and service quality.

• **Billing System:** for Damietta Water and Wastewater Company, streamlining invoicing and payment processes.

Products

The company offers a wide range of digital products and platforms designed for industrial and utility clients:

• **Computerized Operation and Maintenance management system (COMMS)**

Comprehensive solutions covering Preventive, Predictive, and Corrective Maintenance. designed to schedule and monitor maintenance activities, reduce unexpected failures, and optimize asset performance. Widely implemented in water and wastewater utilities, and also designed to address the complex needs of manufacturers by ensuring maximum uptime, optimized asset utilization, and safe, efficient operations.

The platform supports the proactive maintenance of machines, production lines, and critical plant equipment, helping to minimize downtime and extend the lifespan of assets.

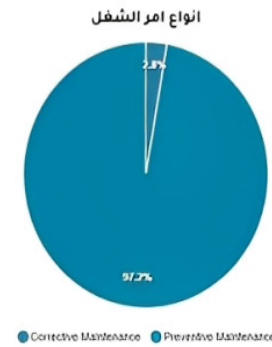
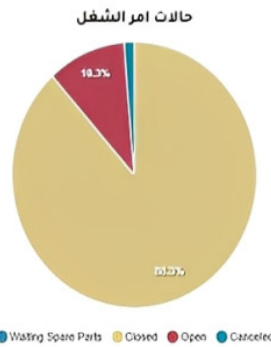
It also covers the full lifecycle of company fleets, logistics vehicles, and material handling equipment, while central maintenance and workshop activities are streamlined through digital repair orders, real-time spare parts

tracking, and efficient labor scheduling.

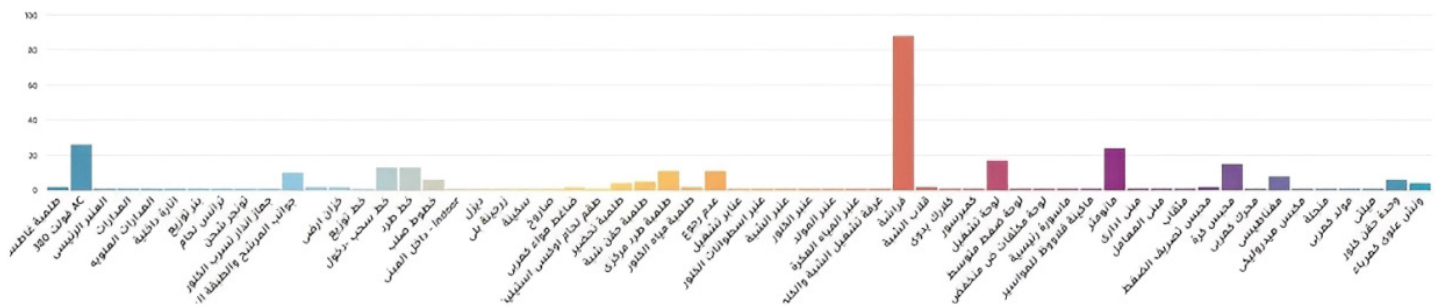
In addition to production assets, the system manages the maintenance of auxiliary facilities, utility networks, and industrial infrastructure within manufacturing plants. All maintenance activities are coordinated through detailed digital work orders that capture asset specifications, assign the right workforce, allocate spare parts and consumables, and include required permits, approvals, and compliance documents. These features ensure that every maintenance task is fully traceable, auditable, and aligned with operational goals.

Health, safety, and regulatory compliance are embedded into every stage of the process through integrated HSE procedures and safety checklists, protecting employees and ensuring adherence to industry standards. Furthermore, preventive maintenance tasks such as inspections, calibration, and lubrication are automatically scheduled, while predictive maintenance capabilities leverage IoT data and performance analytics to identify potential failures before they disrupt production.

By connecting all of these functions into a single platform, our Maintenance Management Systems enable manufacturers to increase productivity, reduce operational



تصنيف الاصول



costs, enhance workplace safety, and maintain a competitive edge.

- **Enterprise Resource Planning (ERP)**

o ERP for Warehouses and Inventory Management

In today's fast-paced business world, effective inventory management is no longer a back-office task—it is the backbone of operational excellence. Yet many organizations still face the same recurring challenges: inaccurate stock levels, delayed decision-making due to lack of real-time data, and the constant struggle to integrate inventory processes with other business systems.

Our ERP Inventory Management System turns these struggles into strengths. With cutting-edge capabilities, it allows businesses to manage all types of warehouses with complete transparency, track items with precision, and even create composite products from items stored in separate locations. Real-time visibility ensures leaders can make informed decisions instantly, supported by powerful analytics that reveal consumption patterns and stock turnover rates.

ادارة الصيانة / اوامر الشغل									
تفاصيل امر الشغل					بيانات اوامر الشغل				
☐ مركزى ☐ الملفية ☐ المفلقة ☐ انتظار اعمال ورش ☒ انتظار قطع غيار					تقارير امر الشغل	2025	كهروميكانيكي		
رقم الشغل	#	وصف امر الشغل	نوع امر الشغل	اولوية	اسم الجدولة	حالة امر الشغل	امر الشغل الرئيسي		
006051	21	Monthly PM For Vertical Pumps	صيانة وقائية	روتين	Monthly PM For Vertical Pumps	مفتوح			☐
006050	22	Monthly PM For Vertical Pumps	صيانة وقائية	روتين	Monthly PM For Vertical Pumps	مفتوح			☐
006049	23	Monthly PM For Vertical Pumps	صيانة وقائية	روتين	Monthly PM For Vertical Pumps	مفتوح			☐
006048	24	Monthly PM For Vertical Pumps	صيانة وقائية	روتين	Monthly PM For Vertical Pumps	مفتوح			☐
006040	25	failure for INLET	صيانة اصلاحية	عاجل	Monthly PM For Vertical Pumps	مفتوح			☐
006033	26	Semi Annual PM For Asset	صيانة وقائية		Semi Annual PM For Asset	مفتوح			☐
006032	27	Semi Annual PM For Asset	صيانة وقائية		Semi Annual PM For Asset	مفتوح			☐
006031	28	Semi Annual PM For Asset	صيانة وقائية		Semi Annual PM For Asset	مفتوح			☐
006027	29	schedule for asset	صيانة وقائية	عاجل	schedule for asset	مفتوح			☐
006025	30	عطّل في المعدة	صيانة اصلاحية	عاجل	schedule for asset	مفتوح			☐

Seamlessly integrated with ERP modules such as accounting, costing, and procurement, the system connects suppliers, customers, and internal teams in one unified ecosystem. With barcode support, role-based access, and multi-level approvals, it guarantees accuracy, compliance, and accountability at every step.

o HR Management System

A comprehensive platform for managing human resources, including recruitment, employee records, attendance, payroll, and performance evaluation. The system streamlines HR operations and ensures compliance while enhancing workforce productivity

o Accounting

Our Accounting module provides a fully integrated financial management solution from start to finish, ensuring accuracy and transparency across all processes. It includes:

General Ledger Management, where all entries from sales, purchases, payroll, and inventory are automatically recorded and posted, generating trial balances and the main financial statements including the Balance Sheet, Income Statement, Cash Flow Statement, and Statement of Changes in Equity. In parallel, Accounts Payable and Accounts Receivable functions track obligations to suppliers and receivables from customers, ensuring smooth cash flow and financial control.

The system also supports Budgeting and Costing, allowing organizations to prepare accurate forecasts, allocate costs effectively, and comply with accounting and tax regulations. All Accounting Operations are streamlined through automated journal entries linked with payroll, inventory, and advances, while a comprehensive Chart of Accounts ensures structure, accuracy, and ease of

monitoring. Finally, the module provides powerful reporting and seamless integration with other systems, delivering actionable insights that support strategic decision-making and business growth.

Seamless integration with other ERP modules such as Human Resources, Inventory, and Computerized Maintenance Management System (CMMS)

• Asset management System

Our Asset Management module goes beyond tracking by enabling detailed technical evaluation and condition assessment of assets, integrating risk analysis and prioritization based on the criticality and importance of each asset. This ensures organizations can make data-driven decisions on maintenance strategies, capital investments, and replacement planning, while optimizing performance, reducing operational risks, and extending asset lifecycles through seamless integration with ERP, HR, Inventory, and CMMS systems.

• Mobile Applications

Design and develop custom mobile applications that seamlessly connect field teams with central systems, ensuring real-time communication and efficiency. Through these apps, technicians and engineers can receive and update maintenance tasks, capture asset conditions with photos and notes, log spare parts usage, and record labor hours directly from the field. Project managers can monitor work order progress, approvals, and safety compliance instantly, while executives gain access to dashboards, KPIs, and reports anytime, anywhere. With secure synchronization.

• Fleet Management

Integrated systems to manage vehicles, monitor utilization, optimize routes, and reduce operational costs.

• Project Management System (PMS)

Tools to plan, monitor, and control projects across multiple departments, ensuring better resource allocation and progress tracking..

• IoT and SCADA Integration

At I.S.I.S, we design and develop the software backbone that connects IoT technologies with SCADA platforms and enterprise systems. Our role is to ensure that data collected from sensors, machines, and field devices flows seamlessly into intelligent software environments where it can be monitored, analyzed, and acted upon.

Through custom software solutions, we transform raw data into actionable insights. Whether it's monitoring the health of industrial equipment, managing energy consumption, or detecting anomalies in real-time, our platforms bridge the gap between operational technology (OT) and information technology (IT).

Contact Information

• Head Office:

Nafie St next to Al Mazloun Mosque-Damietta, Egypt

• **Phone:** 01003986184-01555720405-0572288844

• **Email:** contact@mail.insolution.net - info@mail.insolution.net

• **Website:** <https://www.insolution.net>

• **LinkedIn:** <https://www.linkedin.com/company/i-s-i-s/>

Buyers Guide for Water and Renewable Energy Companies

Aqua Energy Virtual Expo

December 2024



To add your company for free contact us WhatsApp (+966 50 530 8851)

www.aquaenergyexpo.com





AquaEnergy Expo

Magazine

Blue | Green | Sustainable | Smart



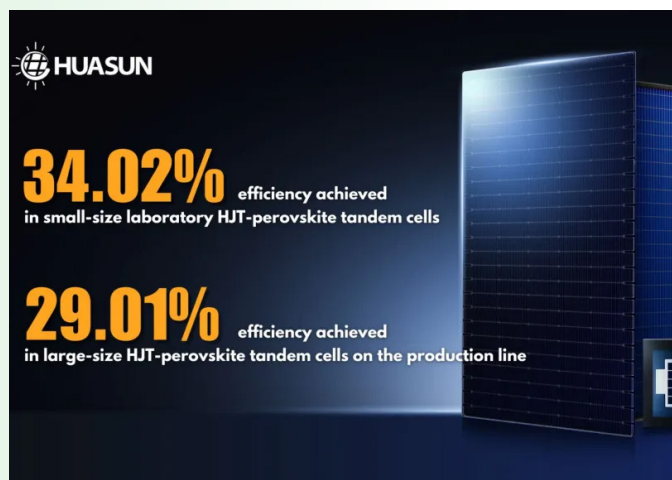
ENERGY NEWS BRIEF

October| 2025

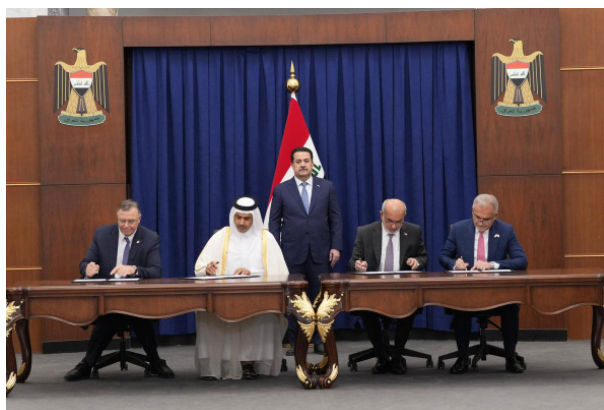
www.aquaenergyexpo.com

Huasun Achieves Record 34.02% Efficiency in HJT-Perovskite Tandem Solar Cells

Huasun Energy has achieved significant milestones in crystalline silicon heterojunction (HJT) and perovskite tandem solar cells. In the lab, they developed a dual passivation strategy, resulting in a remarkable efficiency of 34.02% for small HJT-perovskite tandem cells. Industrially, their production line reached 29.01% efficiency for large tandem cells, nearly 4% higher than conventional silicon cells. These advances, driven by proprietary technologies and new materials, enhance scalability and reliability. Huasun's breakthroughs validate the potential of tandem cells to lower solar power costs below one cent per watt, supporting the global energy transition and boosting confidence in high-efficiency solar solutions.



Iraq: TotalEnergies Launches the Construction of the Final Two Major Projects of the GGIP



TotalEnergies has launched the second phase of development at Iraq's Ratawi oilfield, including the construction of a seawater treatment plant, as part of a \$27 billion multi-energy project. This initiative aims to enhance Iraq's oil, gas, and power production, reduce dependency on Iranian imports, and attract foreign investment. The project, led by Total (45%), Iraq's Basra Oil Company (30%), and Qatar Energy (25%), seeks to boost oil production to 120,000 barrels per day by early next year, nearly doubling it by 2028. Additional developments include a gas processing plant and a solar park, enhancing energy independence.

Waaree Energies enters into Transformer Business with Strategic Majority Acquisition of Kotsons Private Limited

Waaree Energies Limited, India's largest solar module manufacturer, has acquired a 64% stake in Kotsons Private Limited for approximately ₹192 crores, making it a subsidiary. This investment will enhance Kotsons' manufacturing capacity for transformers, which currently stands at 4,000 MVA, and allow for the production of higher capacity transformers up to 220 kV. The acquisition positions Waaree to capitalize on the growing transformer market, expected to reach USD 5–6 billion by 2030, driven by sectors like green hydrogen and EV infrastructure. This move strengthens Waaree's vertical integration and expands its portfolio of energy solutions, enhancing reliability and sustainability for customers.



Enfinity Global Secures €316 Million Financing for 276 MW of Solar Projects in Italy

Enfinity Global Inc. has achieved financial closure on €316 million to develop eight utility-scale solar power plants in Italy, totaling 276 MW across Emilia Romagna, Basilicata, and Lazio, with operations expected by the end of 2026. The financing, arranged as a club deal with ING, Rabobank, and BNP Paribas, includes €214 million in non-recourse senior debt and €101 million for various facilities. Once operational, the plants will generate approximately 403 GWh of clean energy annually, offsetting around 109,000 tons of CO₂ emissions, equivalent to the electricity needs of 150,000 households.



Acorn Bioenergy Launches First Biomethane Facility as a Key Part of Qualitas Energy's Expanding UK Renewables Platform



Qualitas Energy has launched its first renewable biomethane facility, Three Maids, in Winchester, UK, developed by Acorn Bioenergy. This anaerobic digestion plant will process 83,600 tonnes of agricultural waste annually, generating over 120 GWh of biomethane, enough to heat more than 9,000 homes. The project has created 15 jobs and aims to support 50 more. As the first of twelve planned plants, it will inject over 1.5 TWh of biomethane into the national grid, significantly reducing emissions and enhancing energy security while promoting local job creation and sustainable farming practices.

LONGi Hi-MO X10 Powers Adailou's First Off-Grid Solar Project in Djibouti

LONGi, in collaboration with Proxy Group, has launched a 165 kW solar power station in Adailou village, Djibouti, utilizing its advanced Hi-MO X10 modules. This off-grid installation addresses energy poverty in the remote community by providing reliable electricity and 500 kWh of energy storage. The Hi-MO X10 modules, designed for high performance and low maintenance, ensure long-term sustainability and efficiency. The project has garnered praise from Djibouti's officials, marking a significant step toward equitable rural electrification and supporting local livelihoods. This initiative aligns with LONGi's "Light Up Africa" program, promoting clean energy access across the continent.



Global Energy Events

Energy Storage Summit USA

Date: From 26 to 27 March, 2025

Location: Renaissance Dallas Addison Hotel, Dallas Texas

2025 is set to unleash a new wave of opportunity with a strong demand momentum of 62GW of projected storage additions deployed by 2024 and a record number of projects coming online. California has now well-surpassed 13GW of grid-scale energy storage installations, ERCOT continues to go from strength to strength and notable markets in the Midwest and the Southeast are opening up to new deployment opportunities.

Website: storageusa.solarenergyevents.com



The 13th Energy Storage International Conference and Expo 2025 (ESIE 2025)

Date: From 10 to 12 April, 2025

Location: Beijine – New China International Exhibition center phase 2

Developed in 2012 by the nation's leading energy storage industry organization, the China Energy Storage Alliance (CNESA), the 13th ESIE in 2025 is the largest, most professional, and international energy storage event in China, acclaimed as the barometer and indicator for the development of the industry.

Website: my.esexpo.org



Renewable Energy Revenues Summit USA 2025

Date: From 23 to 24 April, 2025

Location: Dallas, Texas, USA

To bring buyers and sellers of power together, the Renewable Energy Revenues Summit USA will cover strategies to optimize renewable energy trading, procurement, and offtake structures across U.S. markets.

Website: renewablerevenueusa.com



Large Scale Solar USA 2025

Date: From 29 to 30 April, 2025

Location: Marriott Dallas Las Colinas, Dallas, Texas, USA

Nestled in Dallas, Texas, Large Scale Solar USA Summit is the nexus for project developers, capital providers, utilities, asset managers, and policymakers. Dive deep into the solar industry's transformative growth, learn from the best, and discover strategies to boost utility-scale solar deployment nationwide.

Website: issusa.solarenergyevents.com



Intersolar Europe 2025

Date: From 7 to 9 May, 2025

Location: ICM München, Munich, Germany

As the world's leading exhibition for the solar industry, Intersolar Europe demonstrates the enormous vitality of the solar market. For more than 30 years, it has been providing a networking opportunity for the key players—from manufacturers, suppliers and distributors to installers, service providers, project developers, planners and start-ups—all under the motto "Connecting Solar Business". It focuses on the latest trends, developments and business models.

Website: www.intersolar.de



Renewables Procurement and Revenue Summit

Date: From 21 to 22 May, 2025

Location: Hilton London Tower Bridge, UK

Revenues Summit serves as the European platform for connecting renewable energy suppliers to the future of energy demand. This includes bringing together a community of European off-takers, renewable generators, utilities, asset owners, and financiers.

Website: renewablerevenue.co.uk



The Battery Show Europe 2025

Date: From 3 to 5 June, 2025

Location: Messe Stuttgart Stuttgart, Germany

Meet battery manufacturers, suppliers, engineers, thought leaders and decision-makers for a conference and battery tech expo focused on the latest developments in the advanced battery and automotive industries.

Website: www.thebatteryshow.eu



PV ModuleTech USA 2025

Date: From 17 to 18 June, 2025

Location: Napa, USA

The event will gather the key stakeholders from solar developers, solar asset owners and investors, PV manufacturing, policy-making and all interested downstream channels and third-party entities. The goal is simple: to map out the PV module supply channel to the U.S. out to 2026 and beyond.



Website: www.pvtechconferences.com/pv-moduletech-usa

UK Solar Summit 2025

Date: From 1 to 2 July, 2025

Location: Leonardo Royal Hotel London Tower Bridge, London

UK Solar Summit 2025 will look at the role solar currently plays in the energy mix, how this will change over the coming years and how this aligns with net-zero and other government targets.

Website: uss.solarenergyevents.com



Large Scale Solar Southern Europe

Date: From 16 to 17 September, 2025

Location: Athens, Greece

The Southern European solar market has entered a transformative phase, with Greece leading ambitious expansion through its 2030 target of 15GW solar capacity, while Turkey has emerged as a manufacturing powerhouse for solar components.

Website: lsse.solarenergyevents.com



Green Hydrogen Summit USA 2025

Date: From 30 September to 1 October, 2025

Location: The Westin Hotel, Seattle, USA

The hydrogen industry is at a pivotal moment in its evolution. The groundbreaking policy advancements of 2023, including the introduction of 45V tax credits under the Inflation Reduction Act (IRA) and the allocation of \$7 billion for regional clean hydrogen hubs through the Bipartisan Infrastructure Law, have set new benchmarks for the sector.

Website: greenhydrogenusa.solarenergyevents.com



Future Energy Asia

Date: From 2 to 3 December, 2025

Location: Rome, Italy

Our 2025 edition will focus on three core themes: Revenue & Trading, the Lifecycle of the Battery, and Optimization Tools for Success. 2025 will see markets such as the Nordics, Iberia, Italy, Germany, UK & Ireland, and the Benelux region, all with market deepdives, helping you to understand how you can position yourself as the frontrunner with all things Battery Asset Management.

Website: batteryeurope.solarenergyevents.com





AquaEnergy Expo

Magazine

Blue | Green | Sustainable | Smart

Now for Free & for a Limited Time

Show your products in the global virtual expo for water and energy products

Joining the virtual expo will help you to increase your customers network, grow your sales, publish your brand, find new distributors and agents and open new markets

*The virtual expo of water and energy products contains more than **15900** products and more than **1200** companies from more than **190** countries around the world*



To add your company for free contact us

WhatsApp (+966 505308851)

www.aquaenergyexpo.com