



الجمعيــة العربيــة لمرافــق الميــاه Arab Countries Water Utilities Association



December, 2019



+962 6 51 61 700 +962 6 51 61 800 www.acwua.org acwua_secretriat@acwua.org



Index

| 1. Index | 2 |
|---|----|
| 2. Introduction | 3 |
| 3. ACWUA IMC Policy | 4 |
| 4. ACWUA Vision and Mission | 5 |
| 5. ACWUA Strategic Objectives (2019 - 2023) | 6 |
| 6. ACWUA Training | 9 |
| 7. ACWUA Members and Partners Ads | 16 |
| 8. ACWUA's Participation in Regional and International Events | 38 |
| 9. Utility and NGO's Members | 42 |
| 10.Private Sector Members | 50 |



Introduction

Welcome to our latest newsletter *_the twelve edition_* all of which we hope have helped to keep you updated on our latest news and provide you with vital information pertaining the water sector in the Arab countries.

Since its official launch in 2009 at Amman, Jordan; ACWUA has expanded its membership network to reach more than 100 utility members from 18 Arab countries, in addition to private sector companies, NGOs and academic institutions along with more than 230 individual members. Furthermore, ACWUA has also developed important partnerships with several international organizations and donors, introducing potential opportunities to its members.

In order to sustain knowledge sharing with our esteemed members and partners, we trust this newsletter *_the second in 2019_* be useful to you and your organization in comprehensively projecting the latest regional and international development in the water sector.

Sincerely Yours,

Eng. Khaldon H. Khashman ACWUA Secretary General

3

ACWUA IMS Policy

ACWUA, as a global center of excellence, will work in partnership with water and wastewater utilities in the Arab countries, on instituting best practices and on building capacities within a high-quality level.

ACWUA is committed to provide all services with high quality, provide safe and healthy working conditions and to protect the environment, which will be achieved through the following:

- Conform with the quality requirements and specifications in all ACWUA matters.
- Provide health and safe working conditions.
- *Apply pro-active actions and procedures to eliminate hazards and reduce OHS risks to prevent injury and ill health.*
- Commitment to consultation and participation of employees regarding their health and safety.
- *Reduction of energy and water consumption.*
- Protect the environment and reduce the pollution resulted from ACWUA activities.

In addition, ACWUA is committed to meet all applicable legal and other requirements relevant to Quality, Health, Safety, and Environment.

ACWUA commitment will be achieved through continual improvement by planning and implementing specified and measurable QHSE objectives and to enhance members and other interested parties' satisfaction.

Khaldon Hussein Khashman

ACWUA Secretary General

12.2019

ACWUA Vision and Mission

ACWUA Vision

Global center of excellence for water and wastewater management and knowhow.

ACWUA Mission

In partnership with the Arab water and wastewater utilities, ACWUA will provide the necessary knowledge and tools for utilities to be a trusted, efficient and effective in providing safe, affordable water and wastewater services.

ACWUA Strategic Objectives (2019 - 2023)

Strategic Objective

This section list key strategic objectives planned by ACWUA for the period 2019 -2023, while the next section detail action plan and targeted indicators for each objective:

Expand ACWUA Members' Knowledge Exchange

- ⇒ Improve knowledge exchange with members through consulting activities for members or through partnerships with them using available knowledge/ knowhow, ACWUA Tools (Non-Revenue Water, Technical Sustainable Management(TSM), Wastewater Treatment and Reuse, Energy Efficiency, Water Safety Plan, Benchmarking, comprehensive customer survey and any additional requirements for the members during the life of this Strategic Plan) and pool of experts working with/for at least 5 members by the year 2023.
- ⇒ Build members' capacity by preparing an annual training plan starting year 2020 (scheduled training) based on needs assessment outcomes and responding to new members' training requests where funding is available using certified programs and training material, to be implemented through both Elearning and conventional training programs working with at least 7 members by the year 2023.
- ⇒ Share outcomes with members through annual report, conferences reports (biannual), guidelines/manuals(at least 3 by the year 2023), operation members and outcomes of large projects implemented by ACWUA or members (at least 3 by the year 2023-if eligible projects available).

ACWUA Strategic Objectives (2019 - 2023)

Improve Members' Communication

- ⇒ Update the assessment of members needs annually from the year 2020 to accommodate their internal and external factors changes.
- ⇒ Continue the implementation of the ACWUA approved "Marketing Strategy & Communication Plan" to improve ACWUA marketing and members' promotion by the year 2023.
- ⇒ Expand members base by at least 20% with more focus on individuals and private sector in cooperation with member utilities.
- ⇒ Continuous networking through bi-annualArab Water Week, and partnership with members interested in organizing a thematic conference by sharing knowledge and experience.
- ⇒ Respond to members'utilities requests (or suggest) at least 3 twinning/match making activities by the year 2023 subject to funds availability.
- ⇒ Build an internal mechanism to connect ACWUA members from the private sector and utilities to transfer the knowledge and new business opportunities by the year 2021 Improve ACWUA Efficiency and Effectiveness

7

ACWUA Strategic Objectives (2019 - 2023)

Improve ACWUA Efficiency and Effectiveness

- ⇒ Update the organizational structure to accommodate current and future needs of ACWUA and its members in the year 2019.
- ⇒ Achieve cost recovery (Net Income adjusted for depreciation) by the year
 2023 with a maximum of 10% variance (calculated based on net revenue) to assure sustainability.

ACWUA

Training

9

ACWUA Training

ACWUA conducted in the second half of year 2019 ten training programs in Jordan for different utilities like Aqaba Water Company, Yarmouk Water Company, Miyahuna ...etc. More than 130 trainees have been benefits from ACWUA programs. ACWUA introduced different programs at half of this year like: Operator Two - Water Distribution, Operator Two-Wastewater treatment plant, Operator One- Wastewater Treatment Plant ...etc.

1. Operator One - Water Distribution (Funded by WMI Project):

This program conducted in Jordan country from 23 June to 3 July 2019. This program delivered to 12 trainees working in Miyahuna — Jordan.



2. Operator One- Wastewater Treatment Plant (Funded by WMI Project):

This program conducted in Lebanon country from 7 to 17 July 2019. This program delivered to 15 trainees working in Aqaba Water Company — Jordan.



3. Operator Two- Water Treatment Plant (Funded by WMI Project):

This program conducted in Lebanon country from 28 July to 6 Augest 2019. This program delivered to 12 trainees working in Miyahuna — Jordan.



4. Operator One- Wastewater Collection (Funded by WMI Project):

This program conducted in Jordan country from 27 Augest to 5 Sep 2019. This program delivered to 11 trainees working in Miyahuna and WAJ — Jordan.



5. Operator One_ Water Distribution (Funded by BGR):

This program conducted in Jordan country from 22 to 29 September 2019. This program delivered to 10 trainees working in Yarmouk Water Company — Jordan.



6. Operator One_ Water Treatment Plant (Funded by WMI Project):

This program conducted in Jordan country from 22 to 29 Sep 2019. This program delivered to 15 trainees working in Aqaba Water Company — Jordan.



7. Leader Ship Empowerment (Funded by UNICEF):

This program conducted in Jordan country from 5 to 10 October 2019. This program delivered to 15 UNICEF experts.



8. Operator Two- Wastewater treatment plant (Funded by WMI Project):

This program conducted in Jordan country from 27 October to 5 November 2019. This program delivered to 13 trainees working in Yarmouk Water Company — Jordan.



9. Operator Two - Water Distribution (Funded by WMI Project):

This program conducted in Jordan country from 11 to 21 November 2019. This program delivered to 14 trainees working in Aqaba Water Company — Jordan.



10. Operator Two - Water Distribution (Funded by WMI Project):

This program conducted in Jordan country from 11 to 21 November 2019. This program delivered to 14 trainees working in Aqaba Water Company — Jordan.

10. Operator Two - Water Distribution (Funded by WMI Project):

This program conducted in Jordan country from 17 to 17 November 2019. This program delivered to 15 trainees working in Aqaba Water Company — Jordan.

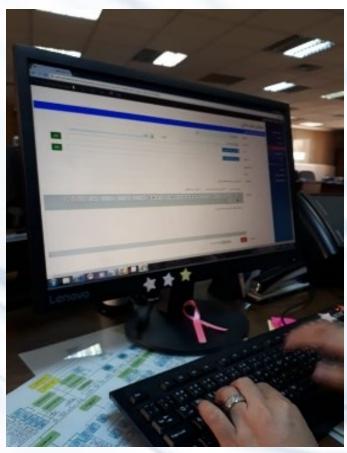
For more info about ACWUA training programs and details and . Kindly <u>click here</u>. And you can contact directly with Ms. Sarah Awamleh by email:

Sarah_Awamleh@acwua.org



#1 Water sector adopts e-correspondence system

The Ministry of Water and Irrigation (MWI), the Water Authority (WAJ), and the Jordan Valley Authority (JVA) have difficulty in organizing and retrieving hard copy internal correspondence among different departments.

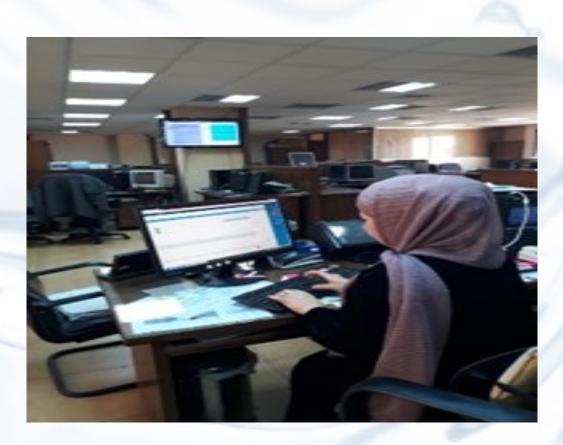


To reduce paper costs, ease the burden of moving paper -based actions by mail, and improve the efficiency and effectiveness of government procedures, in 2017 the King instructed the Government of Jordan to implement an Electronic Government Programme by 2020. To help the Ministry of Water and Irrigation and its entities achieve this vision of a fully digital and paperless environment.

USAID, through its Water Management Initiative (WMI) Project, provided technical support to help launch an e-services portal for the water sector that would facilitate electronic streamlining of administrative transactions within the sector. This support included the assessment and data collection, facilitate the formalization of the agreement, and oversee the implementation.



USAID, in coordination with the Ministry of Digital Economy and Entrepreneurship, supported the Ministry of Water and Irrigation to launch this new electronic system on November 18, 2019. Once fully implemented, three months after launch, the system will mark a major change in the way water entities correspond, both internally and externally. The system will increase productivity, reduce expenditures, enhance procedural efficiency, and provide a more accurate monitoring of transactions, thereby increasing the water sector's ability to manage and implement its own development.





#2 Improvements at wastewater treatment plant to save energy

With energy costs posing a challenge to the water sector, USAID's Water Management Initiative (WMI) project is working closely with water entities to propose solutions that will save energy and costs as well as enhance operational efficiency.

WMI awarded a contract to implement improvements to the South Amman Wastewater Treatment Plant. The work includes reducing energy consumption by controlling aerators and improving sludge management.

Upon completion, the total energy bill is anticipated to reduce by around 20 percent.







#3 Yarmouk Water's new automated system helps in completing 2018 financials



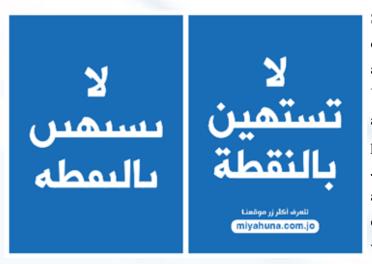
For years Yarmouk Water Company (YWC) implemented processes manually, consuming the utility's precious time and effort.

USAID's Water Management Initiative (WMI) helped YWC implement an Enterprise Resource Planning (ERP) System to automate most of YWC's business operations. Recently, YWC was successful in closing the financial year 2018 using the ERP system. It is the first time that YWC was able to generate financial statements using this automated electronic system.

Using the ERP system assists YWC to improve reporting and planning, customer service, data security and quality.



#4 Jordanians Learn, Adopt Water-Saving Behavior Following Water Conservation Campaign



Saving water is a top priority for Jordan, which is one of the most water-scarce countries in the world. Still, according to a 2018 survey conducted by USAID's Water Management Initiative, 40 percent of Jordanians are not aware of the country's water scarcity problem. Based on these findings, USAID supported Jordan's largest water utility, Miyahuna, in launching a unique water conservation campaign designed to educate the public about critical water facts, promote water-saving behaviors, and offer practical ways to

conserve water. The "Don't Underestimate the Dot/Drop" campaign, which ran from July 28 through September 5, 2019, featured a creative teaser phase by dropping the Arabic diacritic accent marks (the "dots") from the advertisement. The stunt encouraged hundreds of organizations to drop the "dots" from their names and slogans too, in support of the campaign.

The campaign went viral in a matter of days, eventually reaching 3.5 million Jordanians (approximately onethird of the population), garnering nearly 60 million social media impressions, and extending far beyond Jordan's borders.



#5 Training: Sanitation Safety Planning

USAID's Water Management Initiative conducted a first-of-its-kind national training on sanitation safety planning on September 30, 2019.

The training, which took place over three days, trained 17 participants from the Water Sector and other relevant ministries (Ministry of Environment, Ministry of Agriculture, and Royal Rangers). The trainers introduced the World Health Organization's sanitation safety planning to stakeholders in the room.





New EU-funded WOP Programme to be launched in 2020

The European Union is providing new support for utility partnerships! In early 2020, with funding from the European Union, GWOPA will open a call for proposals for Water Operators Partnerships' to help peer water and sanitation operators help one another meet the SDGs.

GWOPA's Initiative to Tacke Water Scarcity in MENA through WOPs

GWOPA has initiated a consultation process with the objective of proposing a regional capacity building action plan on water scarcity for utilities from the MENA Region. The plan will be finalized at an Expert Group Meeting held in Abu Dhabi during WFES 2020 and will be presented at the WUF10 also held in Abu Dhabi.





A New Vision for the Water Sector: Looking Ahead with the International Desalination Association

Between the 2019 World Congress, the Action4Good Conference, the WFES Water Forum, and a host of other new initiatives, 2019 was a busy year for the International Desalination Association. But the Association shows no sign of slowing down in 2020.

In November, IDA announced its strategic partnership with Cape Town's 2020 W12 Congress, held January 27-31, which will bring together city officials, academics, business executives, water experts, and students from cities likely to face a "Day Zero Scenario" – that is, the day water resources are completely depleted. Mr. Carlos Cosin, IDA President for Term 19, will deliver one of the Congress' keynote addresses, along with Mr. Arnold Scwarzenegger, former Governor of California and current Climate Change Activist.

"As an Association, the IDA is extremely pleased to work with the W12 team on this important initiative," said IDA Secretary General Ms. Shannon McCarthy. "Cape Town's Day Zero scenario is an important reminder of the role of advanced water treatment solutions in securing water sustainability."

IDA members are encouraged to attend the event, with a 10% discounted registration fee. The Association's members are also encouraged to exhibit at the Congress, with discounted exhibition rates. Contact <u>smul-rooney@idadesal.org</u> for more information.



A New Vision for the Water Sector: Looking Ahead with the International Desalination Association

But the W12 Congress is just the beginning of IDA's 2020 agenda. The Association has also announced a strategic partnership with Singapore International Water Week. IDA will host a special pavilion in the SIWW exhibition, providing unique opportunities for exhibitors to showcase cutting-edge technologies and services to key clients. The IDA will also host a Business Forum for the water industry's most influential players to converge and develop business opportunities, exchange ideas, and expand their network. IDA members are encouraged to attend the event by contacting info@idadesal.org or exhibits@idadesal.org.

In October, the Association will host the third Water Reuse and Recycling Conference, "Making Every Drop Count," in Rome, Italy, from September 28-30. Already the Association is accepting Extended Abstracts for its technical program, inviting all industry professionals and other interested parties to submit <u>here</u>, as well as calling for sponsors and exhibitors. The IDA will also open nominations for their 2020 Water Reuse and Awards, which recognize outstanding leadership within the water reuse sector by celebrating three worthy individuals and organizations. The nomination period opens February 15, 2020 and nominations can be sent to <u>awards@idadesal.org</u>.

And finally, the Association has already set dates for the 2021 World Congress, hosted by the Ministry of Water and Sanitation, Kenya and the Ministry of Water, Mombasa County, which will take place from November 7-10, 2021. Following the precedent set by 2019, the 2021 World Congress is sure to be an event to remember, with unlimited networking and development opportunities.



A New Vision for the Water Sector: Looking Ahead with the International Desalination Association

IDA's efforts in both 2019 and 2020 are encouraging a more dynamic industry which takes a more comprehensive look at the challenges facing our world today. And, despite the ambition of the goal, the Association has met it with success. Just this past quarter, IDA welcomed a plethora of new corporate and individual members, with membership inquiries addressed to <u>membership@idadesal.org</u>.

What other exciting initiatives the International Desalination Association will launch in 2020 are to be revealed, but one thing is for sure: they'll be a game changer.

To learn more about the International Desalination Association, please visit idadesal.org.



وین ما کنت

التطبيق البلكتروني

حمّل تطبيق مؤسسة مياه البقاع

تطبيق مؤسسة مياه البقاع للهواتف الذكية يوفر للمشتركين والمواطنين حزمة واسعة من الخدمات أهمها التسجيل والدفع الإلكتروني, كما يؤمن اطلاعهم على كافة الأخبار والبلاغات الصادرة عن المؤسسة.

يمكن تحميل التطبيق من «غوغل بلاي» و «آبل ستور». محمد المعالية المعالية المعالية المعالية المعالية المعالية الم



ridat nizo dananĝo 🤗

WHAT'S NEWS

وظيفة شاغرة كمحي لتقرير تحميع 6 505

IOLLO VATER SHMENT

للمزيد من المعلومات عن المؤسسة زوروا موقعنا على :www.bwe.gov.lb او حمّلوا تطبيق المؤسسة المتوفر في مخزن آبل وغوغل بلاي. الخط الساخن : ١٧٨١

مؤسسة مياه البقاع هي مؤسسة عامة استثمارية تتمتع بالاستقلال المالي والإداري وتخضع لوصاية وزارة الطاقة والمياه، وهي المؤسسة المولجة حصرياً بإدارة قطاع المياه (مياه الشفة, مياه الري, جمع ومعالجة مياه الصرف الصحي) ، وفق المعايير اللبنانية ، في محافظتي البقاع و بعلبك-الهرمل.



Green pump technology against the drought

ANDRITZ supplies energy-efficient pumps to Jordan

Covered to 92 percent by deserts and desert-like landscapes, Jordan is the fourth-driest country in the world. Due to these geographical conditions, water scarcity has become a permanent, natural state. While the available capacity of renewable water resources in the region was 1,857 cubic meters in 1967, today it is less than 566 cubic meters. The value continues to fall and it is even expected to drop to 90 cubic meters by 2025. This is already significantly below the generally accepted limit of 500 cubic meters of water per person per year. In addition to geographical and climatic conditions, population growth is another key factor. Over the past five decades, the number of people living in Jordan has quadrupled and is expected to continue to grow at a similar speed.

Reorientation of water management

As early as the mid-1990s, a strong awareness of the impending water crisis developed in Jordan. Consequently, a reorientation of water management began with the aim of reducing agricultural consumption while improving urban supply. The current water resources in Jordan are divided into four areas according to consumption: agriculture, urban utilities, industry and tourism. The largest consumer is the agricultural sector with about 60 percent, while 36 percent are urban, four percent industry, and less than one percent tourism. The sustainable optimization of water supply has become a long-term project through its adoption into the Kingdom's national strategy and agendas. The implementation of the "Water Sector Capital Investment Plan 2016 - 2025" is currently underway. The objectives of this initiative are to secure and improve water supply, develop new water resources to increase capacity, and expand wastewater services. For this, the partly inadequate distribution systems are extensively renovated and modernized. This will form the technical basis for a more comprehensive and sustainable management of water resources in the future in order to meet the needs of a growing population over the next ten years.

An essential part of creating a sustainable water management is the reduction of energy consumption by the water sector. Currently, the Jordanian system requires about 15 percent of the energy produced. This corresponds to about 2,000 GWh per year. A major part of this is can be attributed to the pumping of water. This inefficiency not only results in high costs, but also in increased CO_2 emissions.



Green pump technology against the drought

Based on a joint study with the German Association for International Cooperation, it was found that the annual energy-saving potential of 25 pumping stations would amount to 42 GWh per year. This would not only mean a reduction of up to 33 percent, but also a reduction in CO_2 emissions to over 30,000 tons a year. For the implementation of the results of the study, five pumping stations were selected as pilots for the period 2016-2020.

Optimization of the pilot basis

These include, among others, the pumping stations Wala and Lib near Madaba. Built in the 1990s, the two facilities supply 184,000 people in the city and the surrounding area from the Madaba Reservoir. While Wala transports 1,500 cubic meters of water per hour to Madaba over a distance of 2.6 kilometers, Lib delivers 1,500 cubic meters over a distance of 17 kilometers.

In 2015, these two plants were selected as pilots for the installation of new energy-efficient pumping systems, as they have a common supply source and a controllable distribution system with Heedan Well field. For this purpose, the previous five pumps in each station were replaced by four newer models and a monitoring and control system was installed.

In 2017, the demand of water supply in the capital city Amman increased rapidly due to population growth. Therefore, the Jordan Water Company (Miyahuna) and Water Authority decided to get more water from Heedan Well field to reduce the shortage in demand for Amman. In 2018, this idea was put into action and six new high efficiency pumps were installed to increase the total flow of the pump station Lib to 2,500 cubic meters per hour. These high efficient pumps were selected from the international technology group ANDRITZ and have achieved very good results since being put into operation. The new system should deliver energy savings of up to 20 percent and savings of 313,000 Jordanian dinars, which corresponds to roughly 440,000 US dollars.



Green pump technology against the drought

The pump expert

For over 165 years, ANDRITZ has been a byword for designing and manufacturing customized pump solutions at the highest technological levels. The high standard of ANDRITZ pumps is based on decades of experience in designing hydraulic machines and extensive know-how. They offer robustness and wear resistance, and fulfill highest customer expectations in terms of efficiency, life cycle, maintenance friendliness, and economic efficiency. In the interests of our customers, we set no limits on size and flow rate in the development and manufacture of customer-specific pumps.

Against this background as well as the more energy-efficient pumps and a worldwide reference portfolio, AN-DRITZ has been awarded the contract to refurbish the two stations with a total of 12 pumps by the end of 2018. These include six high-pressure pumps from the HP43 series and six multi-stage, axially split case pumps from the ASPM series.

Energy-efficient pump technology

The ANDRITZ multi-stage, axial split case pumps is a highly engineered pump designed to customers' specific requirements. Its multi-stage impeller arrangement that can be combined in different ways to fulfill different application needs. In addition, the machine is calculated and designed to withstand all load cases which might occur during the lifetime of the pump. Peak outputs of up to 40 MW, flow rates of up to 10 cubic meters per second and a cost-effective construction using barrel casings make this technology particularly effective. The axial split design is maintenance-friendliness even at high heads of up to 1000 meters. Thanks to the excellent efficiency, which is above the industry average, and the speed-variable drive, this series is characterized by its low energy consumption.

In the Wala and Lib pumping stations, in addition to the multi-stage, axial split case pumps also ANDRITZ high pressure pumps from the HP43 series are installed. Due to their high efficiency, they have a strictly ecological orientation. These pumps save a tremendous amount of energy, which pays for the investment within a short timeframe. Behind this technology are many years of product experience, a globally operating technology network, and use of the very latest simulation and test stand technology.



Green pump technology against the drought

The modular machine can be gradually expanded as needed. It is offered in both horizontal and vertical design. Suction and discharge nozzles can be arranged variably depending on the intended use. With nominal sizes of 40 to 200 millimeters, in the first expansion stage, it reaches delivery rates of up to 850 cubic meters per hour at up to 40 bar discharge pressure. In the second stage even up to 63 bar.

"The exceptionally high efficiency, quality and best lead time were among others the main factors for us and our pumps being chosen over the previous supplier. We are more than happy and proud to support Jordan with our hydraulic machines in these pumping stations. We are, however, keen to take on and solve further challenges to support the overall development of a sustainable and energy-efficient water supply and management system in the Kingdom," states Muhammad Abou Daoud, responsible sales manager for Middle East.

Picture 1: The ANDRITZ multi-stage, axial split case pumps is a highly engineered pump designed to customers' specific requirements. Its multi-stage impeller arrangement that can be combined in different ways to fulfill different application needs.





Green pump technology against the drought

Picture 2: In the Wala and Lib pumping stations, in addition to the multi-stage, axial split case pumps also ANDRITZ high pressure pumps from the HP43 series are installed. Due to their high efficiency, they have a strictly ecological orientation.



Contact details

MUHAMMAD ABOU DAOUD Sales Manager - Middle East PUMPS ANDRITZ ANDRITZ FZCO Dubai Airport Free Zone (DAFZA) Dubai / United Arab Emirates m: +971 50 130 55 20 (UAE) dubai@andritz.com andritz.com



Allweiler Farid Hassanein Pumps established in 1982 as a joint venture with Allweiler GmbH, German worldwide company for the purpose of producing pumps (Agriculture, Irrigation, Housing and Industry), we grant our products a prominent status of trust and expertise allowing our product to endure the international competition with the latest technological releases and modifications in the pumps industry.

Our aim to fulfill the substantial demand of both local and international markets with pumps and pump units for all purposes and applications together with quality and reasonable prices. Our company is highly keen to produce new products to serve the various special featured applications in the Egyptian, African, Arabian, Far Eastern and European markets.

We have the largest test lab in Middle East at our hydraulic research center which is capable of testing a wide range of pumps equipped with all precise measuring.

Our factory in 10th of Ramadan City, Cairo is manufacturing pumps with high quality technology under license of:

Allweiler Pumps - Germany Sero Pumps - Germany Sulzer Pumps - Switzerland Rovatti Pumps - Italy



Main fields of Applications:

Drinking water stations and water treatment Pumping stations for irrigation and agricultural drainage **Fish Farms** Solar energy pumps Chemical industries Paper industry Petro chemicals fertilizers Food and pharmaceutical industries Pumping systems for housing and touristic villages Cooling and air conditioning cycles Sanitary drainage, mud and industrial wastewater Irrigation systems, Firefighting systems Steam boilers Power plants Cement and steel industry

Contacts:

Head office: Agha Khan Towers - 1373 Kornish El-Nile St. Shoubra, Cairo, Egypt Tel: 02-24301817, Fax: 02-24301535, email: <u>headoffice@allweilerfarid.com</u>, website: <u>www.allweilerfarid.com</u>

7–11 October 2019, Vienna, Austria Conference on Climate Change 2019 WWW.IAEA.ORG

This conference was organized by the International Atomic Energy Agency (IAEA) in cooperation with the Organization for Economic Co-operation and Development (OECD) and Nuclear Energy Agency (NEA). Conference President's Summary

Climate change is one of the most important issues the world is facing today. Nuclear power can make a significant contribution to reducing greenhouse gas emissions worldwide, while at the same time fulfilling the increasing energy demands of a growing world population and supporting global sustainable development. Nuclear power has considerable potential to meet the climate change challenge by providing electricity, district heating and high temperature heat for industrial processes, generated with almost zero greenhouse gas emissions.

Climate change is one of the biggest environmental challenges affecting the planet and humanity. The IAEA helps countries use nuclear science and technology to monitor emissions and environmental changes to the ocean and ecosystems, mitigate sources of greenhouse gas emissions from energy production and land use, and adapt to new climate realities including food and water shortages and ecosystem losses.

To reach climate change goals, including those established in the Paris Agreement, a significantly greater deployment of low carbon energy technologies is needed. Nuclear power has the potential to play a significant role in achieving these mitigation goals and, as a large scale, reliable, dispatchable, and concentrated source of energy, can also contribute to broader economic and social dimensions of sustainable development. The potential role of nuclear power has been recently addressed also in the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C, released in October 2018.

The International Atomic Energy Agency (IAEA) has an important role in improving the understanding of the potential contribution of nuclear power by providing interested Member States with guidance and assistance for deploying safe, secure and safeguarded nuclear technology and in formulating national energy strategies and policies. Supporting Member States in the attainment of the United Nations climate change targets and Sustainable Development Goals (SDGs) is thus closely aligned with the statutory objective of the IAEA — to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.

35

7–11 October 2019, Vienna, Austria Conference on Climate Change 2019 WWW.IAEA.ORG

To this end, the IAEA organized the 2019 International Conference on Climate Change and the Role of Nuclear Power in Vienna from 7 to 11 October 2019. The conference provided a platform to discuss objectively the scientific and technical aspects of the role of nuclear power in combating climate change. Topics covered in the conference included: challenges and opportunities for existing nuclear power plants with respect to their continuous contribution to the avoidance of greenhouse gas (GHG) emissions; factors necessary to support high rates of deployment, including for advanced nuclear power technologies, consistent with achieving the climate change goals, including those established in the Paris Agreement, and SDGs, namely SDG 7 (Ensure access to affordable, reliable, sustainable and modern energy for all) and SDG 13 (Take urgent action to combat climate change and its impacts); and the prospects for synergies between nuclear power and other low carbon energy sources.

The major thematic areas of the conference comprised the mitigation challenge and implications for the power sector, including the role of nuclear power, stimulated by the engagement of Member States and various international organizations to improve the understanding of the relationship between nuclear and climate. The discussion was guided by the following questions: "Where are we?"; "Where do we want to go?"; and "How do we get there?". The broad themes tackled the nuclear power's interim and long term contributions (at present, until 2030, and beyond 2030) targeting future innovative applications, opportunities to address common challenges, and strategic and cross-cutting issues relating to public perception, regulations, markets and finance. The conference provided an opportunity to discuss mainstreaming nuclear power as a low carbon energy source and its role in combating climate change.

Eng. Mohammad Radwan Almomani, Amman, Jordan





Members and Partners Advertisements



H2O-Solarwasser UG Safe Drinkingwater at extreme temperatures

Water is H2O plus Contamination. Ocean water is 90% H2O and 10% Contamination. We talk about 90% H2O only.

Our equipment harvest pure H2O from salty or brackish water. We harvest safe drinking water (pure H2O) at extreme temperatures from salty sea, river, well or brackish water using just solar energy—without motors. For more information visit <u>http://www.solarwasser.eu</u> The website is available in 7 languages.

Solarwasser is pure H2O without minerals and bacteria. A spring in your garden - so to speak. Application of pure H2O is possible in hightech, hygiene, medicine, food, baby food, household and of course as drinking water. If you are interested in this technology please we expect glad your email and we send to you our standard documentation for Information and discuss. Albin Zupancic

Manager H2O-Solarwasser UG Germany Lanterstrasse 112 46149 Oberhausen T +49 208 650855 F +49 208 94145070

email <u>albin@solarwasser.eu</u>

ACWUA's Participation in Regional and International Events

ACWUA's Participation in Regional and International Events

- ACWUA represented by the Secretary General, Eng. Khaldon Khashman, participated in the Eleventh Meeting of the Arab Ministerial Council where the meeting includes Ministerial and technical meetings for the Housing, environment and water resources Technical Advisory Committee. This meeting was convened by Water League of Arab States, The economic sector Department of Environment, held in Cairo, Egypt between 23rd to 25th of June 2019.
- ACWUA as a partner from Jordan with Egypt and Lebanon in ReWater MENA project participated in "Gender Mainstreaming Workshop" in Cairo, Egypt from 18th to 20th of June 2019. The workshop discussed SIDA's gender policy, the water reuse policies in the region and case studies from IWMI's wok in several countries. This Gender Mainstreaming workshop delivered to the to sensitize to the concept of gender mainstreaming.
- ACWUA, participated in the workshop "Bridging Science and Policy: Water scarcity, climate change and adaptation in the Middle East", in Amman, Jordan from 30th of June till 1st of July 2019 which organized by The Earth Institute at Columbia University. The workshop aimed to bring together scientists, policymakers, urban designers and other stakeholders to establish a solution-oriented network of experts that seeks to address water and environmental issues in the Middle East. Eng. Khaldon Khashman, the Secretary General of ACWUA, participated as a speaker and in a series of cross-disciplinary discussions.
- ACWUA, participated in the first national consultative meeting on Water Utilities,
 "Wastewater Reuse for agriculture and the its contribution in achieving national water security" in Amman, Jordan on 17th July 2019. This meeting was convened by Royal Scientific Society in partnership with International Water Management Institute (IWMI).

ACWUA's Participation in Regional and

International Events

- The Secretary General of ACWUA, Eng. Khaldon Khashman participated as a keynote speaker in the topics Water sector reform, Water-food nexus and Centrality of water for sustainable development in the Second Jordan Economic Forum "Economic Growth to Accelerate Job Creation and Progress towards the Sustainable Development Goals". which took place in Dead Sea, Jordan on 4th and 5th September 2019. The Forum aimed at offering a public private dialogue between the Prime Minister, the government and the private sector representatives; to discuss ways to enhance parliament's role in following up on the outcomes of the London Initiative and reform program, implementing the 2030 agenda for sustainable development, as well as bolstering the Lower House's legislative, oversight and representative roles.
- The 24th World Energy Congress held on 9th to12th September 2019 in Abu Dhabi, UAE. The Secretary General of ACWUA, Eng. Khaldon Khashman represented ACWUA with over 150 countries represented, the World Energy Congress is the world's largest and most influential energy event covering all aspects of the energy agenda. Running since 1924, the triennial World Energy Congress enables dialogue amongst Ministers, CEOs, policy-makers and industry practitioners on critical developments in the energy sector.

ACWUA's Participation in Regional and

International Events

18th November 2019, in Tunisia, ACWUA participated in the workshop about the ACWUA activities and partnership with Tunisia private water sector This workshop was convened by German Water Partnership in collaboration with ACWUA, Société Nationale d'Exploitation et de Distribution des Eaux-SONEDE. The workshop demonstrated ACWUA membership benefits as well as the Arab Water Week to Tunisian private sector.



- ACWUA, participated in **Business meetings with water and sewerage operators from the Maghreb and Sub-Saharan Africa, with the participation of Jordan,** held from 19th to 21st November 2019 in Tunisia, by Business France office of Tunisia is organizing, in partnership with the Tunisian water and sanitation institutions SONEDE and ONAS.
- Memorandum of understanding was signed on Thursday 21st November 2019 between the Arab countries water utilities association (ACWUA) representative by Eng. Khaldon Khashman and Société Nationale d'Exploitation et de Distribution des Eaux-SONEDE representative by Mr. Abdullah bin Daly. This MoU aims to establish the rule of cooperation in technical consultations, training and capacity building and exchange of experiences in the field of management and operation in the water and wastewater sector.

Utility and NGO's Members



Holding Company for Water & Waste Water



Greater Cairo Water Company



Menya Water and Sanitation Company



Dakahlia Potable Water and Sanitary Drainage Company



Greater Cairo Sanitary Drainage Company





Alexandria Water Company



Fayoum Drinking Water and Sanitation Company



Giza Drinking Water & Wastewater Company



Cairo Water Company



Beheira Water & Wastewater Company



Luxor Water & Wastewater Company



Sharkia Water & Wastewater Company

42



Red Sea Water and Wastewater Company



Damietta Water & Wastewater Company



Matrouh Water & Wastewater Company



Qena Water & Wastewater Company



Gharbia Water and Sanitation Company



Aswan Water & Wastewater Company



Alexandria Sanitary

Drainage Company

North and South Sinai Company for Water and Wastewater



Sohag Water and Wastewater Company



Benisuef Water and Sanitation Company



Menoufia Company for Water and Wastewater



Kafr ElShikh for Water & Wastewater Company

43



Anabta Municipality







Palestinian Water Authority (PWA)



هيئة مياه و كهرباء أبوظبحي Abu Dhabi Water & Electricity Authority

Water and Electricity Authority, Abu Dhabi



Coastal Municipalities Water Utility –CMWU



Joint Service Council for Water - Jenin



Sier Municipality



شركة أبوظبحي للتوزيع Abu Dhabi Distribution Co.

Abu Dhabi Distribution Company



Hebron Municipality



Nablus Municipality



Water Supply and Sewerage Authority Bethlehem



شركة أبوظبي لخدمات الصرف الصحي Abu Dhabi Sewerage Services Company

Abu Dhabi Sewerage Services



Abu Dhabi Transmission and Despatch



هيئة كهرباء ومياه الشارقة Sharjah Electricity & Water Authority

> Water and Electricity Authority Sharjah

Water and Electricity Authority, Dubai

شـركة العين للتوزيـع Al Ain Distribution Company

Al Ain Distribution

Company

هيئة كـهـربـاء وميـاه دبـي Dubai Electricity&Water Authority





Federal Authority for Water and Electricity / UAE



Centre National Des Resources en Eau (S.N.D.E) -Mauritania



وزارة الأشغـال العـامـة MINISTRY OF PUBLIC WORKS

> Ministry of Public Works - Kuwait



Algerienne des Eaux -ADE Algeria



Egyptian Water and Wastewater Regulatory Agency (EWRA)

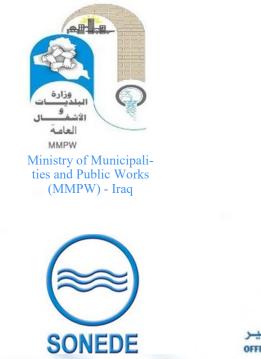


Office National de l'Assainissement - Algeria



Ministère Délégué auprès du Ministère de l'Energie, des Mines de l'Eau et de l'Environnement Chargé de l'Eau

Ministère Délégué Charge de l'Eau



SONEDE – Tunisia

Lebanon Eco Movement



Lebanon Eco Movement



Office National de l'Electricité et de l'Eau Potable

ONEE- Morocco



ONAS - Tunisia



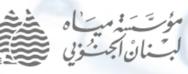
مؤسسة مياه بيروت وجبل لبنان Establishment of The Water of Beirut & Mount Lebanon

Beirut & Mount Lebanon Water Establishment



North Lebanon Water Establishment





North Lebanon Water Establishment



وَلَازَلَا لَشَعَالِ وِشُوَوْنَا لَبَلَيْهَا تَوَالْجَطْلِيْظَالْعُمَرَانِيَ Ministry of Works, Municipalities Affairs

and Urban Planning

Ministry of Works - Bahrain

Bekaa Water Establishment

South Lebanon Water Establishment



Aqaba Water Company – AWC



Jodan Water Company, Miyahuna LLC.





Ministry of Water and Irrigation MWI



Yarmouk Water Company



Jordan Valley Authority

Yemen

Hodeidah Water and Sanitation

Local Corporation



Sanaa Water and Sanitation LocalCorporation SWS

Hashemite Kingdom of Jordan



Water Authority of Jordan

Water Authority of Jordan

Yemen

Al Baydha Water and Sanitation Local Corporation

Yemen

Local Water and Sanitation Corporation Al Mokha

Yemen

Hajjah Water Supply & Sanitation Local Corporation



Local Water and Sanitation Corporation Amran



Local Water and Sanitation Corporation Aden

Yemen

As-shihr Water Utility

Yemen

Al Mahweet Water Supply and Sanitation Utility

Yemen

Water Supply & Sanitation Local Corporation Dhamar





Yemen

General Administration of Water and Sanitation and the Ministry of Environment Sadah Water Supply and Sanitation Local Corporation

Bajil Water and Sanitation LLC

Yemen



Yemen

Abyan Local Corporation

Bait Al-faqih Water and Sanitation Local Corporation Seiyun Local Corporation

Yemen

Ibb Water and Sanitation

Local corporation



University of Sana'a



National Water and Sanitation Authority



Local Water and Sanitation Corporation Ta'az

Yemen

Central Authority for Rural

areas - Yemen

Yemen

Zabid Water and Sanitation Local Corporation - Yemen















Private Sector Members



Xylem Water Solutions



Public Authority for Electricity and Water – Oman



شركة الإمارات سيمكورب للماء و الطاة EMIRATES SEMBCORP WATER & POWER COMPANY

Emirates Sembcorp Water and Power Company - UAE



World Engineering and Technology



Metering - Canada



Nivus GmbH - German





Salalah Sanitary Drainage Services Company – Oman

Maalouf Trading & Contracting s.a.l



Wilo SE International Cooperation –German



Chemonics International, Inc – USA





RUQN AL HANDASA CONSULTING ENGINEERS

50



Khost Aqua Consult

DISI

DAOM - Disi Amman Operation and Maintenance



Water Management and Irrigation Institute - Sri Lanka



Arabtech Jardaneh Water and Environment



RadiuSenaat Piping and Fittings LLC- USA



Madinaty Electromechanic Power Company



RSA Electronics - Canada



Itron Dubai



Smart Water Metering - Canada



Reetaj Technology & Technical Services RTTS



Allied Law & Arbitration



Joint Efforts Group - AL JHOOD











Water Management Initiative Project (WMI)

