

Marafiq World

Marafiq President and CEO received a trophy of appreciation from the Eastern Province Governor HRH Prince Saud bin Nayef recognizes Marafiq's support to the charity association for Orphans Care **P. 14**



**His Excellency
Abdullah Ibrahim
Al-Saadon inaugurates
the new Marafiq
Head Office in Jubail
Industrial Area **P. 6****



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Marafiq World

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Message from the President and CEO

As I write to you the world is faced with an overwhelming public health pandemic that has impacted billions of people's lives around the world. Marafiq has followed the directives from the Saudi Arabian government and its supporting ministries, we care for our employees and have taken all the necessary actions to protect our staff against the infectious COVID-19 virus. At the same time, we have appointed a Business Continuity Committee that has strategically guided Marafiq's operations to ensure a consistent utility service is being provided to our industrial and residential customers. Before I elaborate on some of our achievements, I want to personally thank each of you for your commitment to complying to the emergency protocols that were implemented. Thank you to our shift workers for keeping the plant running, as well as our day workers for

diligently working from home and from the office. We have shown great courage and competence for keeping our families safe and for ensuring business continuity.

On a more positive note, I am delighted that our new headquarters building has been completed, this building will be of great value to our employees, as it will gather our workforce in a central working location. We can also be proud of our efforts and contributions to Marafiq's success as we have achieved a new historic milestone record of reaching 40 million safe man-hours without a lost-time injury. Employees in Marafiq are leading by example; the British Safety Council assessed Marafiq's safety culture, the findings empathized that Marafiq's employees demonstrate that they take personal responsibility, ownership, and have a strong belief towards safety.

From an operational perspective, Marafiq improved the reliability of its RO4 plant to reach around 90% and has successfully reduced its water losses in Jubail by 6%. SHEPI was recorded at a zero level for Marafiq and its Joint-Venture; this confirms the efforts that have been carried out by all employees and contractors to continuously live Marafiq's values and drive the safety culture forward. Marafiq also enhanced its gas flow system of STG 5 & 6 plants to comply with the Royal Commission's Environmental Regulations 2015, which showcases our environmental and conservation commitments.

Marafiq continues its strides towards enhancing its sustainability initiatives, through conducting a consultative study to develop its sustainability strategy and road map to 2030. Marafiq has signed a memorandum of understanding with the Royal Commission and SABIC to establish a solar power plant with photovoltaic technology in Yanbu Industrial.

Marafiq has also implemented various sustainability programs such as sustainability training for all employees in Jubail and Yanbu. It has also reduced greenhouse gas emissions (mainly CO₂) by improving operating conditions. It has accelerated change through utilizing environmentally friendly technology, reusing waste such as using biogas from sewage plants to generate energy instead of disposing of it by burning it, as well as using natural gas instead of fuel for power generation.

Marafiq is inspired to be the forerunner in the provision of utility services across the Kingdom of Saudi Arabia, and to meet this ambition; we are advancing the TOWARDS EXCELLENCE project. This initiative is one of Marafiq's strategic business goals to enhance its workforce skills and build its capabilities. The TOWARDS EXCELLENCE project ensures that Marafiq evolves into continuous improvement mode with highly efficient processes, engaged and well-trained employees, which provides an absolute assurance to delivering excellent service to our customers.

I am confident that Marafiq, as an organization, is prepared to add value to the Kingdom's utility sector and to benefit from its ambitious 2030 Vision as well as its new wave of developments.

I am grateful to each of you for your faithful engagement with Marafiq's vision.

TOWARDS EXCELLENCE
This is our way forward.

Abdullah K. Al-Buainain
President & CEO



Marafiq welcomes two new Board of Directors

The Marafiq management and all of its employees thank Mosaed Sulaiman Al-Ohali (SABIC) and Mohammed Berki Al-Zuabi (Saudi Aramco) for their contribution and value that they have added as members of Marafiq's Board of Directors. Marafiq welcomes, Ahmed Trais Al-Shaikh (SABIC) and Musaad Ahmed Al-Sayouhi (Saudi Aramco) as the two new members to its Board of Directors.



Ahmed Trais Al-Shaikh
SABIC



Mr. Al-Shaikh has been with SABIC since 1997 and has held various leadership positions in the company. He holds a Bachelor of Science degree in Electrical Engineering from the King Abdulaziz University in Jeddah, Saudi Arabia. Before his present assignment, Mr. Al-Shaikh was the Vice President of Manufacturing Center of Excellence. He has also held the post of President of SABIC affiliates, Yanpet and United. Mr. Al-Shaikh, has more than 25 years' experience in the global oil and petrochemical industries, beginning his career with Saudi Aramco Shell Refinery (SASREF). At SABIC he works closely with key Joint-Venture Partners such as ExxonMobil, Sinopec and Shell, to name a few. Currently

Mr. Al-Shaikh oversees all global manufacturing operations at SABIC in the Americas, Europe, Asia and MEA - including major industrial sites in Saudi Arabia in the city of Jubail on the Arabian Gulf, as well as in Yanbu on the Red Sea. Mr. Al-Shaikh's vision is to achieve total manufacturing cost leadership, maximize economic value creation though manufacturing excellence and uncompromising safety standards. To achieve this his function at SABIC focuses on key pillars of success starting with the development of people, promoting an inclusive culture, performance via world class safety, health and environment and the reliability of all manufacturing assets within the SABIC family.



Musaad Ahmed Al-Sayouhi
Saudi Aramco



Mr. Al-Sayouhi holds a Bachelor of Business Administration with an emphasis in Accounting and HR Management from the University of Colorado at Boulder and an MBA with concentration in Accountancy, Economics and Financial Markets from McCallum Graduate School of Business, Bentley University in Massachusetts. He is a Certified Public Accountant (CPA) and Certified Management Accountant (CMA). Mr. Al-Sayouhi started his career with Saudi Aramco in 2005 and over the years has worked in a number of organizations and in different positions across the Company including Controller's, Planning and Performance Management, Strategic Transformation Office and Treasury. Mr. Al-Sayouhi also led the Finance IPO Readiness organization and played a key role in Saudi Aramco IPO journey. He also led the Financial Accounting Department, which is responsible for producing the Company's consolidated financial statements. It was with this wealth

of experience that he was appointed as the General Manager of the Planning, Budgeting and Performance Management Center, a key position he holds today. He is also serving as a Board member of the Saudi Aramco Mobil Refinery Company (SAMREF) and a member of SAMREF's Board Audit Committee. Outside his notable achievements at Saudi Aramco, Mr. Al-Sayouhi was the Secretary of the Arabian Society for Human Resource Management (ASHRM). He was also the Chairman of the Founding Committee of the Institute of Management Accountants (IMA) Saudi Arabia, Eastern Province Chapter. Once the Chapter was established in 2011, he assumed the role of the President for three consecutive terms and then was nominated to be a Director at Large for another year. Due to his significant contributions to the IMA organization, he was awarded the Leadership Platinum badge (the highest level) from the IMA Leadership Academy.

Marafiq new Headquarters in Jubail Industrial City was officially inaugurated by its Chairman H.E. Abdullah Ibrahim Al-Saadon

His Excellency, Engineer Abdullah Al-Saadon inaugurated Marafiq's new Headquarters which covers an area of more than 18,000 square meters and costs more than 200 million Saudi Arabian riyals.

Marafiq officially inaugurated its new Headquarters building located in Jubail Industrial City. On June 18, 2020, the President of the Royal Commission for Jubail and Yanbu and Chairman of the Board of Directors, Engineer Abdullah Ibrahim Al-Saadon, inaugurated Marafiq's Headquarters building in Jubail Industrial City which is built on an area of 18,240 thousand square meters.

Marafiq's new Headquarters building contains seven floors and includes a basement. It also has employee offices, multi-use halls, an extension service building which includes industrial security management offices, a mosque, a medical clinic, and a restaurant in addition to the customer relations center.

His Excellency, Engineer Abdullah Al-Saadon expressed his happiness for the completion of the project, pointing out that it is considered a landmark in the Industrial City of Jubail, thanks to its architectural design and its strategic location.



Scan QR Code for the new Marafiq Headquar's location in Jubail Industrial City.



Abdullah K. Al-Buainain, Marafiq President and CEO thanked Dr. Alaa Nassif (outgoing RC Yanbu CEO) in a farewell gathering



Abdullah K. Al-Buainain, Marafiq President and CEO and Hamad Al-Suhaim, MaSa Executive GM, signed a five-year contract extension on 7 January 2020 to continue operations and maintenance water services for Marafiq in Jubail, Yanbu, and Ras Al-Khair



Marafiq was awarded the “Water Stewardship Award” at the H2O Conference in Riyadh



Exhibitions & Conferences

Marafiq takes part in the prestigious Abu Dhabi Sustainability Week 2020 conference



Marafiq takes part in the 9th Saudi Smart Grid Conference and Exhibition



His Excellency Engineer Abdullah Al-Saadon, Marafiq Chairman, delivered a speech at the opening of the 14th Annual Gulf Petrochemicals and Chemicals Association (GPCA) forum



Marafiq was represented at the 10th Center Industry Affiliates Program (CIAP) conference hosted by the King Abdullah University of Science and Technology (KAUST)



Marafiq participated in Reliability Excellence Conference 2019 hosted by Exxocon Global and presented a presentation on Marafiq Reliability Journey



Social Responsibility

Abdullah K. Al-Buainain, Marafiq President and CEO received a trophy of appreciation from the Eastern Province Governor HRH Prince Saud bin Nayef in recognition of Marafiq's support to the charity association for Orphans Care in the Eastern Region



Ahmed Al-Khleawi, General Manager of Human Resources and Services receives a plaque of appreciation on behalf of Marafiq President and CEO for being a diamond sponsor to support the 3rd Scientific camp for 150 orphans students in the Eastern Province



Marafiq sponsored the “Hayati Ghalia 2” program of the Drug Enforcement Administration which engaged 13 middle and high schools in Al-Jubail Industrial City.



Adriaan Liebenberg, Manager of IWTP8 (MaSa) welcomed the International School Group of Jubail to a visit and tour of the Industrial Treatment Plant



Highlights

The Customer Relations Department led Marafiq's Industrial Customers Gathering in Jubail, under the theme "Towards Compliance Together".



Ma'aden executives met with Marafiq team for the supply of water to the planned new Ma'aden phosphate production facility in Ras Al-Khair



Abdullah K. Al-Buainain, President and CEO speaks about the importance of early identification and mitigation of risk during the “Top Down Risk Assessment” workshop



Mahmoud Saleh Al-Theeb, VP O&M-Jubail visited Marafiq's new recreation center in Yanbu to motivate employees towards health and wellness



MaSa's Industrial Wastewater Treatment Plant #8 team launched a housekeeping campaign titled "Our workplace is our second home, let us take good care of it"



Abdulilah Al-Jader, Manager of Customer Relations (Jubail) welcomed auditors from Electricity and Cogeneration Regulatory Authority (ECRA)



Congratulations to Asset and Strategy, Planning and Standards (Power and Gas Planning) for winning the “2019 Best Housekeeping Department”



Marafiq launches its first of a kind Virtual Academy mobile application to provide employees with training and learning opportunities

RECOMMENDED TRAINING

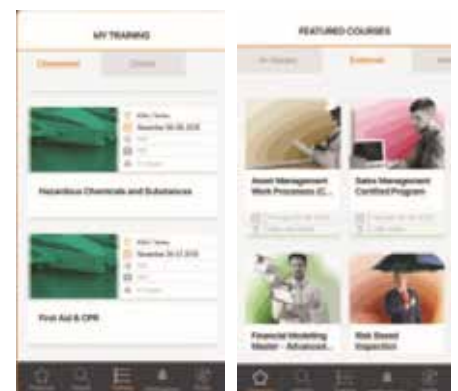
Schedule	Course
EM	Effective Maintenance, Planning and Scheduling Skills
CI	Certificate in Maintenance, Planning and Scheduling
PS	Practical Shutdown and Turnaround Management
ME	Managing Efficient Shutdowns and Turnarounds
IE	Implementing Effective Preventive and Predictive Maintenance Techniques
WC	World Class Preventive and Predictive Maintenance Strategies
EM	Effective Maintenance Contracting Management Skills



Learner Mobile App



Competency-based Career Management





Today's workforce looks very different than yesterdays

Ahmed Khleawi Al-Khleawi

Human Resource and Services General Manager

Employers are reevaluating the required skill set and seeking for new solutions to help their teams develop further. Organizations are increasingly looking to meet their talent needs by enhancing their Human Resources systems and investing in new technology. The future of work lies in the capable hands of dynamic people in an environment that embraces change and celebrates connection and collaboration.

In addition, job roles and job descriptions are shifting as workers look to map their path within an organization and define their own careers. Marafiq's approach to learning and development has risen to meet these changing tides, and applies best practices in understanding how to train and guide agile teams to unlock their full potential.

In reply to this shifts, as part of Towards Excellence Initiative, Marafiq have launched a new career and training management system and mobile app that will handle all future training and development requirements of its employees.

Marafiq Virtual Academy App is a user-friendly career and development system that is designed to help plan the annual training calendar and track employee's career development in a very easy manner. Making it almost effortless to access all training related information and content in one place The mobile app allows users to skim through course content, check available e-learning courses, list of available conferences and ask to attend or enroll directly from any mobile device.

Serving as a career management solution, Marafiq Virtual Academy Mobile application can help identify competency gaps, bridge these gaps by attending courses recommended for the employee and take full ownership of career plan and development needs.





Route to Minimize Project Risks

Fayez Falah Al-Anazi
Project General Manager (A)

Risk management's objective is to assure uncertainty does not deflect the endeavor from the business goals. Project Risk Management reflects integrated risks associated with a project and is embedded within the approach to project management. It is a continuous iterative process.

Research has identified it as one of the most important project management practice essential towards project success, whereby appropriate application is critical.

Continual challenges in Project Risk Management:

- Saying it gets done, but not doing.
- Checklist identification of 'the usual suspects'.
- Differentiate enterprise and project risks.
- Inaccurate assessment of probabilities and impacts.
- Failure to discuss and gain agreement on risk tolerances.
- Inappropriate risk response plans (too much or too little).
- Not proactively monitoring risks.

There are many proven ways to reduce project Risk:

Firstly, adherence to risk management critical success factors. Understand the prevailing challenges within the organization and treating it with a tailored approach. Secondly, transparent risk identification process, unbiased risk analysis using tailored probability impact matrix. Mentoring risk owners to identify risk triggers for effective implementation of approved response plans. Lastly, effective primary stakeholder engagement for unbiased risk reviews, reassessment and audits. Seamless horizontal and vertical risk communication.





The role of Corporate Communication during the COVID-19 pandemic

Saeed K. Al-Abdullah
Corporate Communication Manager

I believe for most organizations in Saudi Arabia and across the world, it will be their first experience in dealing with a global pandemic, and therefore, many leaders are facing uncharted territory. During the COVID-19 epidemic, the pace at which change was occurring was alarming; it is, therefore, crucial to communicate accurate facts timely and consistently to reduce and demystify the fear associated with the virus. Additionally, it is essential that organizations share their knowledge promptly across professional networks so that lessons learned can be implemented rapidly across the industries. Dissemination of actions and findings support other leaders in their decision-making process, especially during degrees of uncertainty caused by unprecedented threats.

Being prepared does have its benefits as it establishes a transparent process and provides an excellent foundation to start from. It is imperative that all stakeholders have a clear understanding of their roles and responsibilities during a crisis. Organizations need to be proactive

and evolve as the crisis develops by collecting continuous feedback from multiple stakeholders and guiding their way forward.

The Corporate Communication department at Marafiq worked diligently with various committees and departments to promote strategically focused messages such as those obtained from the Ministry of Health and the World Health Organization. These health messages ensured that employees were well educated about hygiene and how to avoid the virus from infecting them and their families. Different business policies were also implemented through communicating them to employees via email, SMS, and top-down line management; some of these include temporarily induced travel restrictions, change in work protocol and a work from home procedure. It was also crucial for Marafiq to demonstrate leadership in times of a crisis and to share its preventative actions taken with other industries in Saudi Arabia. In light of this, the Corporate Communication department produced a bi-lingual video which was shared with the staff and with the public on social media.

“The secret of crisis management is not good vs. bad, it’s preventing the bad from getting worse.”

– Andy Gilman



Precautions that Marafiq has taken to curb the spread of COVID-19



Educated employees on COVID-19



Created a Business Continuity Committee



Temporarily reduced working hours for all day workers from 07:30-14:30



Temporarily allowed employees to work from home



Verified travel history for all contractors and visitors



Enforced travel restrictions, suspended business trips and external training



Employees with chronic illness worked from home for 16 days



Encouraged social distancing, stopped all face-to-face meetings



Restricted entrance to control rooms



Stopped buses from Dammam and Al-Qatif



Employees returning from high risk countries were requested to stay at home



Arranged laptops and VPN access for remote work



Measured the temperature of all individuals



Provided hand sanitizers for all facilities



Increased frequency of cleaning and disinfection



Used disposable one-time cups and spoons



Encouraged employees to wash their hands for at least 20 seconds



Stopped lunch in the cafeteria and arranged lunch boxes in Yanbu



Business Development in Marafiq

Mohammed Al-Zubaidi
Business Development Manager

Utilities (water, electricity and gas) are essential services that play a vital role in economic and social development of the Kingdom. Increased competition in the utilities sectors in recent years has entailed changes in regulatory frameworks and ownership structures of enterprises, in addition to business diversification. In this changing utility business environment; utility companies today face new challenges such as potential deregulation, smart meters, and looming environmental regulations, increasingly water and wastewater utilities are following gas and electric utilities into the era of investor ownership, and developing unregulated subsidiaries, in a number of cases privatizing completely.

As a result, Marafiq has embarked upon its New Growth Strategy. The strategy aims to position Marafiq as Kingdom-wide champion for utilities, the objective includes the evaluation of various opportunities in water and cogeneration in the industrial cities and across the Kingdom by participating in both regulated and non-regulated bidding projects. The expansion involves development of greenfield plants and the acquisition of multiple brownfield projects. That if implemented would significantly contribute to Marafiq's portfolio of power and water utility service for delivery in the Kingdom of Saudi Arabia.

To materialize the potential business opportunities, the Business

Development Department (BDD) is bolstering up its activities. The department is strengthening Marafiq's exposure to the utilities market by instituting links and initiating dialogues with eminent industries to improve Marafiq's marketing position and achieve financial growth by;

- Defining long-term organizational strategic goals.
- Identifying new potential growth ideas / business opportunities by conducting frequent internal and external surveys, visiting industrial customers, networking with national and international partners.
- Evaluating new business opportunities and conform its alignments to the approved Corporate Growth Strategic Position, Vision, and Mission.
- Evaluating strategically aligned new opportunities including; data identification and gathering, market and financial analysis, pinpointing all available options to pursue the business opportunity, identifying required Opex and Capex, Marafiq capability evaluation, weighing its impact on the resource use efficiency, risk assessment, and appraising regulatory constraints.
- Assessing the overall impact of business opportunities on Marafiq in term of; benefits and risks, its effect on Corporate Business Plan and value addition.

Due to unfolding of utility businesses in the Kingdom, Saudi Water Partnership Company (SWPC) has developed 39 Independent Water Production (IWP) and Independent Sanitary Treatment Plant (ISTP) opportunities out of which 6 are at various stages of development. Similarly, Renewable Energy Project Development Office (REPDO) plans to have 58.7 GW of renewable energy in the Kingdom by 2030 through competitive bidding. Apart from this, Saudi Aramco has announced 2 cogeneration projects so far and privatization of existing power generation assets of Saudi Electricity Company (SEC) and Saline Water Conversion Company (SWCC) are on the cards through competitive bidding.

To capture these tendering business opportunities, the BDD intensively scrutinizes the projects through three main stages as shown in the Figure 1, starting from Solicitation of Interest (SOI) / Expression of Interest (EOI), submit Statement of Qualification (SOQ), and submit bid proposal up to financial closing if announced as preferred bidder. Later on, the project will be developed by the formed project company between Marafiq and the selected partners where the execution going to be implemented by the Engineering, Procurement and Construction (EPC) contractor.

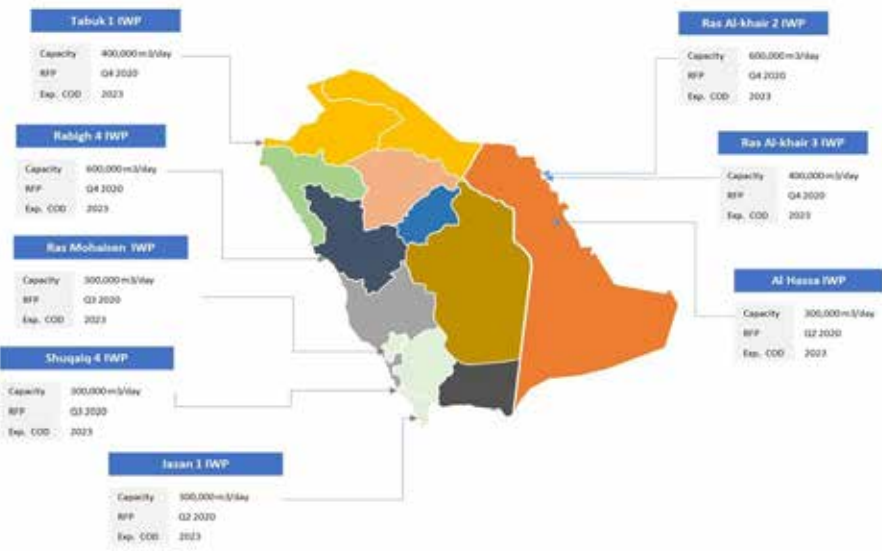
This process demands rigorous amounts of work; like evaluation of the opportunity, selection of suitable partners in project company as well as O&M company, appointment of technical, financial and legal consultants, selection of EPC contractor, lending arrangements with banks, preparation and optimization of bids, several internal approvals and finally submission of bid proposal. For this a dedicated team is assigned and working actively. Participation in the bidding process is bringing in tremendous learning experience to Marafiq which would be the key for winning projects in the future.



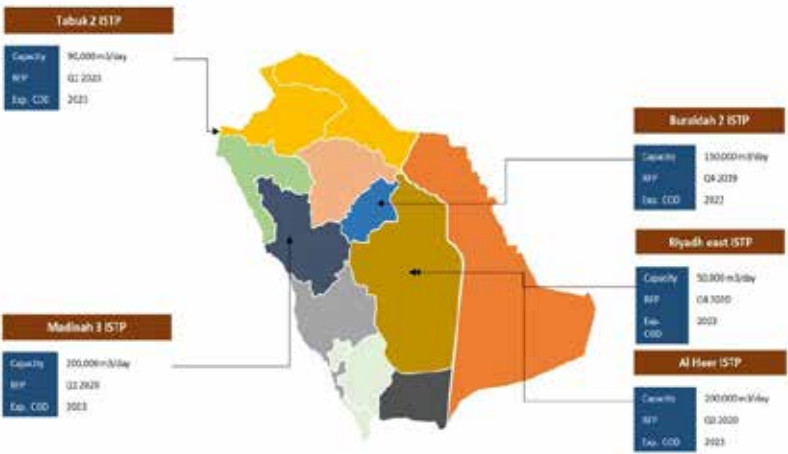
Figure 1: Bidding Stages

We believe that over a period of time, the partaking in bidding of projects will add incredible capabilities and Marafiq is going to be a leading project developer, and or partner. Ultimately Marafiq will capture a significant market share of utilities' business in the Kingdom as a reliable market player that provide fast and dependable operating reserves and capacity to meet utilities' demand.

The SWPC program for 2020 (IWPs)



The SWPC program for 2020 (ISTPs)





How does Business Continuity Management (BCM) add value to the business?

Atiq Bajwa

Enterprise Risk Management Manager

On 6 February 2020, a major fire broke out at the Disneyland Park in California that led to a complete shutdown of some of their major attractions. This incident not only affected the reputation of Disney but led to financial losses in lost revenues and cost to clean-up and re-build the attractions.

In August, 2016, Delta Airline suffered a power outage for their IT systems for about five hours. As a result, the airline had to cancel more than 1,000 flights on the day and grounded more 1,000 flights for the next day. In addition to a significant reputational damage and a lots of unhappy customers, the airline suffered more than US\$150 million in financial losses.

The incidents like above can happen to any organization at any time. However, the organizations can develop and maintain the “readiness” to deal with such incidents by proactive planning (i.e. developing Business Continuity plans) and regular practice (simulations, drills, and exercises).

What exactly is Business continuity?

In the simplest terms, BCM is having a “plan B” for all your critical business processes so if and when there is an interruption in the process, you have an alternative or backup to continue.

As per the International Standard (ISO-22301), the Business Continuity is defined as, “The capability of the organization to continue delivery of products and services at an acceptable pre-defined levels following a disruptive incident”.

A simple example could be to have a power generator as a backup for the possible power failures and a more complex example could be a “Disaster Recovery Site” for the IT data center. In case of an outage of the main data center, all IT Applications or services will be provided by the “back-up site”.





Does the Business Continuity mean “maintaining business as usual” in case of an Interruption?

No, the key words in the ISO-22301 definitions are “acceptable” and “pre-defined”. For most businesses, it would be impossible to maintain 100% of their products and services during or following an interruption. That is why the organizations need to define which products or services are critical and develop plans to continue the provision of ONLY the critical, predefined products and services until the business process returns back to normal.

What are the typical Business Interruptions scenarios?

Business interruption scenarios vary depending on the size, complexity and geographical locations but here are some generic scenarios that can cause business interruptions:

1. Cyber-attack / IT systems failure
2. Environmental disaster (floods, hurricanes, earth quakes)
3. Pandemics (Corona virus, Ebola, SARs, MERS, etc.)
4. Loss of key staff members.
5. Loss of storage or transportation facility
6. Failure of Utilities (gas, power, water, or sewage)

What are the benefits of implementing Business Continuity Management?

Having well-defined, documented and rehearsed Business continuity plans offer several benefits to the organization such as:

1. Compliance with the regulations. For example, as per the SAMA regulations, all Banks and Financial Institutions in Saudi Arabia must establish and implement BCM.
2. Confidence among the employees, customers and suppliers that the organization is

resilient against any unforeseen interruptions.

3. Enhanced company image, reputation and a competitive advantage as being a more “reliable” company
4. Minimizing the impact of disruptive incidents on the company financials and reputation.

Are there any international standards or guidelines for developing and implementing Business Continuity Management systems?

ISO-22301 is the international standard that provides guidelines of developing, managing and continually improving the BCMS. The organizations can seek 3rd party certification after meeting the standard requirements. BCI (Business Continuity Institute, UK) and DRII (Disaster Recovery Institute International, USA) also provide guidelines for developing and managing BCM systems.



Safety culture - It's all about you

Fouad Abduljaleel Jambi
Industrial Security Manager (Yanbu)

We are all influenced to some degree by things that we see and hear in our personal life. Big corporations spent a great deal of resources on advertising and marketing to influence your buying habits.

The same is true in our work place as well, our behavior is derived by a number of factors that we see our managers, peers and work colleagues do, influenced by a number of organizational factors. When the focus comes to 'safety compliance', there is no exception!

An accident can occur by any unplanned and uncontrolled event caused by human, situational or environmental factors or any combination of these factors which interrupts the work process and which has a potential to result in minor or major injury, illness, damage or undesired event.

Safety culture can be depicted of an

“Our behavior is derived by a number of factors that we see by our managers, peers and work colleagues do”

attitude to safety that pervades the whole organization from top to bottom and has become a norm of behavior for every member of the organization.

The point to focus here is that this 'attitude to safety' can be positive or negative. An organization with a negative or poor safety culture will struggle to improve safety and prevent accidents even if they have excellent written procedures and state-of-the-art safety equipment. The reason for this is really down to people, their attitudes to safety and how this attitude can be influenced, encouraged and nurtured.

Attitudes which are built on company values, transparency, accountability and improved communications are sure to lead towards a path of positive safety culture.

The major factors that are likely to influence our behaviors towards safety might include:

- Managers and supervisors – Do they show commitment to safety and lead by example?
- Work colleagues – The way that colleagues behave will probably have an influence on others.
- Training and job design – Are the employees trained and aware of the procedures?
- Effective communication – How does the organization handle formal and informal communication between and within levels of the organization.
- Health and safety focus – Is there a strong focus on health and safety in the organization.

Starting Point

To effectively improve the safety culture in an organization, it must first begin with an evaluation of where the organization is on the cultural thermometer, followed by a SMART action plan.





These evaluations can be done in the form of a carefully planned and executed organization survey where the users are encouraged to provide candid feedback while remaining anonymous. The purpose of the plan is to identify what motivates the employees, as well as which activities build trust, commitment and communication. A focus on effective communication and feedback – combined with a focus on the people – can help achieve the desired results.

Creating and measuring your plan

Following the feedback received, creating an effective plan is as important as having the desire to improve. It is important to start at the top and systematically plan out the action items to steer them throughout the organization.

Determining what motivates your people will assist you in implementing your new initiatives. It leads to discovering why employees continue certain behaviors. Consider these questions:

- Are at-risk behaviors driven by the fear of reprisal due to time demands?

- Do employees focus on quality because they take great pride in their work?
- Is safety important to them because they witnessed a tragedy to a friend or family member?
- Similarly, consider the motivations of front-line supervisors and line managers.
- Are management driving supervisors to encourage employees to not follow procedure?
- Are employees interpreting the request for production as a call for productivity at any cost?
- Is management commitment toward health and safety regularly displayed?

Once the organization gets to a point where they believe progress is being made, the next step is to measure progression. The simplest method is to conduct a second perception survey and compare the results against the first.

Getting the fruits

As the organization navigates through the plan roadmap, an emphasis should

be placed on building trust. This is everyone’s responsibility as it fosters ownership of the process and vision. Employees must feel that they can be open and honest about their concerns related to safety, morale and program progression. They need to be free to ask questions about expectations without the fear of retaliation.

An accident can occur by any unplanned and uncontrolled event caused by human, situational or environmental factors or any combination of these factors which interrupts the work process and which has a potential to result in minor or major injury, illness, damage or undesired event.

When employees feel respected, informed and included in the decision-making process, they more likely will continue participating, start communicating and feel better about the organization for which they work.

The presence of positive workplace perceptions and feelings ultimately lead to higher customer loyalty, higher profitability, higher productivity and lower rates of staff turnover.



Permit To Work Authorization Committee

Mushabbab Salem Al-Quraishi
New Venture Manager

The Permit to Work (PTW) system requires key roles and responsibilities which are detailed in our Marafiq OHSMS manual. The PTW procedure needs to be effectively applied to the PTW process. One of the essential part of the system is the formation of the PTW Authorization committee.

PTW Authorization Committee forming authority

The Central Safety Committee (CSC) is the forming authority of the PTW Authorization committee and the committee chairman will be selected among the business unit (BU) managers to authorize employees as authorized persons. The duration of

the chairmanship shall be 3 years and CSC shall assign incoming chairman in consultation with ISD/LPD.

The PTW Authorization committee comprises of a committee chairman and its members (all APC and a representative from Marafiq OHS section).

PTW Authorization Committee chairman plays a major role in managing and ensuring the committee efficient functionality, committee member's full participation and demonstrate leadership. The chairman committee is also responsible to:

- Recommend the changes in the PTW Procedure in consultation with OHS section.
- Shall sign and issue the authorization card and maintain the records of authorized persons upon receiving the endorsed and duly filled PTW nomination form, along with the filled authorization card from the PTW committee chairman.
- Evaluate the provided exemption justification together with the concerned manager for Marafiq or Contractor, on call technician who intends to be an APR and grant the exemption if the justification found acceptable.
- Ensure that the proper PTW Procedure is established.





Dedication to Project Delivery

Khalid Mohammed Al-Dawood
Center of Excellence Manager

Dedication to Project Delivery

Marafiq has a dedicated Engineering and Project Management function that is involved in effective execution of projects; from conception to handover. Our Project Management Team (PMT) is comprised of disciplined engineers, Subject Matter Experts, senior management and supported by externally appointed Project Management Consultants (PMC).

Organization Overview

The Project Function has multiple departments that provide integrated services from Planning, Engineering, Execution, QA/QC, and Governance. Which will increase Marafiq self-reliance with less dependency on External PMC.

Strengths of Projects Function

- Self-Reliability – Almost 80% of projects are being executed in-house.
- Association with world-class Management Consultants for special requirements.
- Most of the deliverables are developed with in-house resources.
- Reduced Change Orders – Cost over-runs controlled after implementation of PES.
- Strong and efficient portfolio management is in practice.
- Early involvement of stakeholders, and effective stage gate process ensures optimum utilization of funds.
- Limited dependability on external agencies.

PES – Project Execution Strategy Framework

Marafiq's all CAPEX projects are executed through a well defined Stage Gate System under PES Framework, which increased reliability, quality and project control of the projects from concept to the handover. In this we have 38 approved and controlled procedures along with controlled forms and checklists, which standardize the process.

Although we have a well-established function with comprehensive procedures and templates, we believe that there is always chance for improvement therefore our Project Function continues to review the existing processes for the optimization of cost and schedule to deliver the projects for Marafiq and help become the best-in-class utility service provider in the Kingdom of Saudi Arabia.





Majdi Hakem Al-Harbi
Power Operations (A) Superintendent



Khaled Saeed Al-Koman
Production Planning & Efficiency Supervisor

Applying Marafiq's Sustainable Strategy to Enhance Environmental Protection & Control by Reducing NOx Emissions from Gas Turbine Units

The emissions of air pollutants in gas turbine units arising from the oxidation process in aeronautical combustion chambers have recently become a matter of great concern due to their detrimental and hazardous environmental impacts. Emissions of nitrogen oxides (NOx) from gas turbines also contribute to the formation of ozone (O₃) in the troposphere, which is worrisome to many environmentalists.

The speakers described the results of a technical study conducted on the effects of water injection rate and the operating conditions on the NOx emissions at Marafiq's gas turbine units. This system injects demineralized water into the combustor through fuel nozzles to regulate the combustor flame temperature and lower the nox

emissions. Water is injected into the combustor primary zone for nox control at the rates depending upon the firing temperature and combustor air-mass flow rate. The results of commissioning tests at the gas turbines show significant impact on the NOx emission values, which were observed to substantially decrease from 84 ppm to 54 ppm. The results obtained clearly depict that the emission monitoring results for all cases are far below the maximum permissible emission levels stipulated in the environmental regulations.

Finally, Marafiq is committed to continue nurturing sustainable business and growth wherever it operate utility facilities. It is at the center of marafiq's core values and also a prerequisite for the license to operate the facility.



Majdi Al-Harbi and Khaled Al-Koman from PGD-YI presented a paper at European Utility Week and Powergen Europe Conference in Paris, France. The paper is about "Applying Marafiq's Sustainable Strategy To Enhance Environmental Protection & Control By Reducing Nox Emissions From Gas Turbine Units"



MARAFIQ

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towards
excellence



Message from the Executive General Manager

Hamad Saad Al-Suhaim
Executive General Manager for MaSa

The year 2020 saw the start of a new era for MaSa with signing a five-year contract extension to continue O&M water services for Marafiq in Jubail, Yanbu, and Ras Al-Khair.

This is the recognition by Marafiq for the professionalism, dedication and commitment of MaSa and all of its employees.

This contract is an opportunity for the company to set more challenging objectives and approaching our business with a new economic model, improved practices and performance. Additionally, our shareholders also recognize that this opportunity requires support to transform how we work and have decided that a transformation program is required to increase the productivity and sustain the reliability of

our service to our customers over the coming five years.

This is a new challenge that we will rise to and make MaSa a success over the coming five years.

MaSa employees have completed 5 million combined manhours without Lost Time Injury (LTI) in June 2020 which is the highest recorded safe manhours for MaSa since last LTI recorded in October 2018. This achievement would not have been accomplished without your full dedication, commitment and continuous efforts to Health, Safety and Environment in the workplace of all employees

While we continue performing our tasks, we have to always remember the responsibility of every individual

towards safety, and to always be proud of what we have achieved as well as bringing safety awareness amongst all of our staff and colleagues to the level where we maintain MaSa as the safest place of work.

On behalf of MaSa shareholders, myself and all Management Executive Team members, I want to thank all employees for their engagement and continuous valuable contribution since the creation of the company.





HR Business Partner (HRBP) Success Story

“Be flexible and open to change.”

Adel Turkistani
Manager, Human Resources (MaSa)

The role of human resources in the field of business remains the primary driver in the application of laws and regulations that create a suitable environment for employment among modern organizations. Companies need for human resources to be close together in order to achieve the results appropriately the idea of business partner for human resources makes this profession close to the employer in formation and decision-making. MaSa is accelerating in the business fields by applying this approach.

The concept of “HR Business Partner” believes that instead of focusing on what human resources do that are operational activities, it is necessary to focus on what human resources can provide to achieve the desired outputs at the strategic level that is summarized into four main Human Resources outputs:

1. Setting Strategic Execution
2. Administrative Efficiency
3. Employee Contribution
4. Capacity for Change

In the integrative pursuit of human resources for the change and creativity in the formation of stages to reach

excellence aimed at MaSa, numerous workshops were worked on to reach the human resources strategy. MaSa senior management has been encouraging and supportive in achieving these goals and seeking to facilitate measures and overcome difficulties.

HR Professionals play a strategic partner role through the ability to translate business strategy into action.

MaSa implemented the ideal model of HR Business Partner from January 2020 that benefits the organization. This project was started in early 2019 with the efforts that resulted in the formation of tasks, responsibilities and the integrated model in applying the idea followed by HR Business Partner pilot conducted on one of MaSa departments that was admired and encouraged at the company level.

The HR Business Partner role is part of a successful HR function, that works together with business leaders as expert in human resources who has full knowledge of human resources specialization, ability to provide the necessary advice, knowledge of suitably development and work methods which adds additional value to business leaders and the organization from HR perspective.

We at MaSa are keen on finding the required competencies for the HR Business Partner:

1. The ability to develop Human Resource Strategies
2. Smart Perception of Entrepreneur
3. Excellence and familiarity with Labor Relations
4. Employee Relations Care
5. Business Development Cooperation
6. Focus on Customers
7. Implementing Human Resources programs
8. Effective Communications
9. Negotiation and Effective Influence

In the journey of MaSa-HR success story that we have experienced in implementing the role of HR Business Partner has given us more responsibility and space in the pursuit of development. Active participation together with business leaders and for human resource to be leading example in serving as a strategic reference.





Reduce water losses using GIS

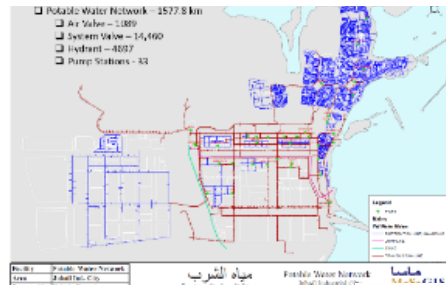
Faiz A. Roomi
GIS Specialist, MaSa

Role of GIS in water loss reduction

Modern utilities constantly grapple with chronic issues like aging infrastructure and water losses. With ESRI ArcGIS platform, we can ensure that employees do the right work and do it right.

MaSa GIS

At MaSa-Jubail, CPO-GIS consolidated assets information into single, authoritative Geographical Information System. By displaying asset information on-premises web maps, decision makers prioritize projects based on data-driven interpretations of the spatially enabled data. By implementing an enterprise GIS, all information about potable water, reclaimed water and sea water cooling network and its equipment are available in GIS, as well as integrated with SAP.



Doing the Work Right - Leak detection Saves Time, Money and Water

Undetected leaks cause major resource losses. The GIS platform allow the suite of water-loss detection and response solutions. By using advanced technology to isolate and repair leaks, we can avoid costly acoustic surveys and step testing as well as the even costlier consequences of long-term undetected leaks.

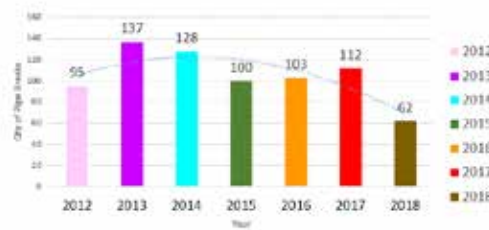
Detecting Leaks using GIS

With the help of GIS leak-detection solution, we can save money and

many things. One such tool is a nighttime flow analysis application that identifies unusual flow during lowest-demand hours, which typically occur in the early morning. This application also lets us divide our entire service area into more manageable pieces called District Metered Areas (DMAs), which we can then monitor to compare expected flow to actual flows. If we detect significantly higher flows in a DMA, we can further investigate and identify unusual flow areas on web maps. Once these areas are identified, we can isolate them and repair the leaks.

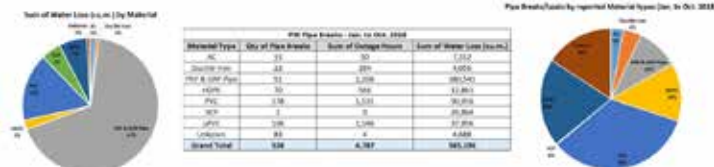
PW Pipes based on break incidents (Jan. 2012 to April. 2018)

Total Count of Major PW Pipe Breaks (>200mm) = **737**



Key Statistics for PW Pipe Breaks (January to October 2018)

Total Recorded Pipe Breaks / Leaks (Jan. to Oct. 2018) = **548** (4.2% damaged by contractors)





GIS Update for the Marafiq Networks in Yanbu

Mohammad Owais Ahmad
GIS Engineer

GIS and customer information

GIS is involved in the management of a lot of information related to customers, networks, maintenance, operations, and design. Following the completion of digitizing Yanbu potable and process water networks in 2019, GIS team is working on finalizing the Waste Water network of Yanbu in 2020. Organizing and automating the large amount of spatial data related to these networks through GIS technology facilitates the planning, design, development and maintenance of water networks. Since the network changes rapidly, the capability to find, manage, and analyze data quickly and effectively makes a strategic difference. Solving the business problems of a water network requires a good understanding of the network. Therefore, integrating in the day-to-day operation of business units is supposed to provide several advantages to make better decisions.

Data collection using GPS

Water network components are usually digitized from the As-built drawings but field survey is also essential to verify the locations and perform the spatial adjustment on the maps. GPS is used is to raise the coordinate of the global positioning system from the field which provides accurate positions anywhere in the world using compatible receiver (GPS). In Yanbu, this device has been used to record the position of the main lines, valves, hydrants, and all other important network components.

GIS benefits for water network

GIS provides answers to many issues regarding network such as:

- Provisioning of service
- Planning and maintaining network infrastructure

- Managing existing and new customers
- Monitoring status and performance of the network.

Representation of knowledge

The ability of GIS in the data visual representation by generalization and highlighting trends and hot spots can help to identify network issues and put the appropriate and efficient corrections. Also, GIS platform provides the ability to do information integration with other systems and overlaying different layers of information on a map which helps in converting the data into useful knowledge and tools.





Sidem achieved final acceptance certificate for Marafiq's SWRO project

Abdulhafeez Jamali
Senior Reliability Engineer, New Venture

Marafiq's Sadara SWRO Project has successfully achieved a milestone of three years warranty period on 15 December 2019. Marafiq was awarded the Lumpsum turnkey contract to SIDEM, a subsidiary of Veolia France in 2013. The project has achieved initial acceptance certificate on 15 December 2016.

Marafiq's Sadara SWRO Plant has completed three years of smooth and uninterrupted operation of supplying three streams of industrial water (Cooling Tower Make-up Water, Demineralized Water and Utility Water) to Sadara Chemical Company in Jubail-2. It is imperative to mention here that plant reliability and Maintenance activities and exporting industrial water to Sadara, go hand-

in-hand, without any interruptions to Sadara Chemical Co in last three years.

Marafiq's Sadara SWRO project has earlier completed all its required tests in the contract such as operational test, performance test, capacity test, 30-day long reliability test runs and other requirements, as per the contract.



Sadara Management Committee walkthrough Marafiq's SWRO plant

Sadara Management Committee, comprised Marafiq's President and CEO as well as VP level senior management committee has decided to quarterly visit each third party plants, including Marafiq's SWRO plant inside the Sadara complex.

- Marafiq presented a short presentation based on EHS performance KPI, process safety event, other EHS initiatives and best practices.
- Management Committee visited the control room and reviewed the process overview and operational challenges.
- Management Committee finally enjoyed a walkthrough and visited the Marafiq's SWRO plant.





TAWREED ten years of achievements and performance

Faisal Fahad Al-Mutairi
Field Operator (TAWREED)

Marafiq Water and Power Supply Company (TAWREED) is a Saudi company registered on 16 December 2006. TAWREED is wholly owned by Marafiq and continually strives for efficient and distinguished off-taking and delivery of power, water and gas supply. This year 2020, TAWREED completed ten years of its successful journey and continues its high performance in monitoring JWAP, and provides world class of O&M activities to assure uninterrupted gas supply to the project as well as protect the rights of on-sale parties until the end of 2019 TAWREED has successfully delivered about 200,000 GWh of power to Saudi Electricity Company (SEC) and 2.4 billion cubic meters of water to both Marafiq and Saline Water Conversation

Company (SWCC). The average plant availability remains above 98%. TAWREED also performed its operation in a safe manner and assured a full compliance to all safety requirement and as a result TAWREED won the Marafiq best safety award in 2016 and 2018, and recorded a zero lost time accident.

In compliance to the fuel supply agreement TAWREED had successfully conducted the five years gas pipeline scrapping and internal inspection from 2014 to 2019 respectively. In addition, TAWREED had successfully refill JWAP back-up diesel tanks in 2014-2015 to assure fuel availability in compliance to the teams and conditions of PWPA. Also TAWREED successfully completed the installation of two new

wringing separators which added grate value to gas supply reliability and gas station maintainability.

As part of departmental and social participations, the TAWREED team won the second place at MARAFIQ football tournament and two of TAWREED staff participated with MARAFIQ Football championship of Royal Commission. TAWREED aims to continue the successes, progress and prosperity in all aspects for a bright and ambitious future.





“2019” An eventful year for continuous improvement

Ayman Abdullah Yahya Taher

Asset Performance and Integrity Manager

Last year was a year of tremendous progress in moving forward the reliability agenda. We reported good improvements and continued to build on the momentum in each of our operating processes. Nevertheless, there are some areas of improvements and we must act in order to improve.

- KPIs implementation and internalization has further strengthened including MaSa, Power Transmission and Power Distribution.
- Unit-wise Mean Time Between Failure (MTBF) for our Power generating plants finalized.
- Integrity of Marafiq plants through the Risk Based Inspection studies and its implementation and establishing Integrity Operating Windows (IOW) have completed covering almost 99% of major assets in Yanbu I and Yanbu II.

- RCM Studies completed for new lift stations, boiler blowdown and ESP in STG 5&6 and air intake house in GTGs. Introduced PM manhours optimization with O&M in Yanbu I and Yanbu II using Wrench Time Technique which achieved a reduction in manhours by 30%.
- We have been able to resolve a number of chronic problems and incidents through RCA facilitation.
- 20 employees from O&M Yanbu I and Yanbu II, TSD and AP&I achieved CMRP (Certified Maintenance and Reliability Professional) through external certification training program.
- We decided to prepare IPF Design Engineering Practice, IPF Lifecycle Document and IPF Testing Procedures with our own internal resources as the vendor failed to deliver our expectations.

Reliability is a journey and a very important one for Marafiq. I am confident we shall take full advantage of the Reliability initiatives already completed in previous years to shape-up our future. We have a very credible AP&I team supported by concerned departments capable of delivering our objectives of ensuring safe, uninterrupted and cost-effective services to all our current and future clients.





Strategic Thinking: Accepting the Future of a Deregulated Utilities Businesses

Zulfiqar Bashir

Lead Specialist, Opportunity Evaluation, Business Development

Now a days, the utilities businesses (electricity, water, and gas) are facing market deregulation, which has compelled them to reassess their strategies in the face of escalating pressures from transforming regulations, ground-

breaking technologies, gradually intricate operations, shifting consumer crescendos and weedy demand. Under these evolving conditions, the future of the utility businesses in the Kingdom lies in innovation and leveraging latest technologies to

recognize and release hidden value in the underlying opportunities, and then using that to scale and clinch new revenue prospects. To transmute volume growth in utilities sector into profit growth, there could be five philosophies for accomplishment;

Philosophies	Actions
Grow Scale	<ul style="list-style-type: none"> Digitization, industry merging, market liberalization, and new participants mean that the obstacles to entry are lower than ever. Consequently, scale becomes a competitive advantage. In utilities business, scale will increasingly matter, because regulators will demand efficiency, and ownership of infrastructure will be sold-off. In order to get scale, utilities will have to review their capital positioning and be ready to apprehend meaningful divestments. Consolidation may be another approach, eventually, geographic diversification might become a better option to get scale versus vertical integration, to hedge regulatory risks.
Embrace New Technologies	<ul style="list-style-type: none"> Making good cost-effective use of technology will be important in shaping winners and losers, specifically in networks. Applications of advanced analytics to asset management could mean major progresses in cost efficacy in operations; there is a ample efficiency potential to capture via technology. The studies show that adoption of new technologies could facilitate a saving of 15 to 25% for maintenance and replacement and it could become mainstream in short period of time.
Focus on Regulatory Management	<ul style="list-style-type: none"> In the past, the large share of business revenues and profits required utilities to understand future commodity prices. In the future, the supremacy of top-down regulation means that foreseeing regulation, and possibly helping to shape it, will become the adventurous. Effective regulatory strategy means the focus should be; the cheapest supply mix, tariffs and incentives should be workable and fair. Operative regulatory supervision to be a priority and will require developing new capabilities, such as dynamic influential backing.

<p>Explore Adjacencies</p>	<ul style="list-style-type: none"> • Launch new business models, for example, developers might decide to sell an increasing share of ownership to financial players that can offer a lower cost of capital. This is already occurring in the renewables sector, and could extend to infrastructure.
<p>Adjusting Market and Governing Models</p>	<ul style="list-style-type: none"> • To make the transformation of utilities commercially viable, the market models will need to evolve. • A regulation that sets a tariff to cover the replacement value of the network may not recognize the full set of value expected to be delivered by the utility of the future. • Evolving regulation or over the development of new markets, utilities will need to have a plan to capture the value they bring to the table.

Utilities must decide on the right strategic approach to tackle this new environment. Predicting what the new environment will look like is one thing, but today’s utilities need a roadmap for getting there. The initial stages will be tricky, but the results of a successful

transformation will be commended by customers, employees, shareholders and regulators for decades to come.

Thus, utility businesses need to embrace new ways of working, new technologies and new business

models, even as they protect legacy businesses. It necessitates becoming a different kind of utility – one that can target, release and monetize trapped value sustainably.





Effective Business Strategies for Success in International Construction Contracts

Chandran Shankar
Commercial Contract Advisor, Corporate Governance Function

In international construction projects, buyer & seller end strategic advance planning in several aspects, RFP (techno commercial) formulations, contracts structuring, negotiation, costs & profit optimization, and optimum utilization of time, manpower and other resources, both at planning and execution stages, are key for success.

Construction Industry and its complexities:

The commercial success (or failure) of most construction projects today largely boils down to the result of upfront contract formulations, total sync & synergy between technical & commercial aspects, and negotiations of terms & price between the buyer and the seller. Lack of clear strategy and effective formulations and poor techno commercial negotiations during bidding and contract award, and also during execution and at contract settlement & closure could result in not just monetary

losses, but even reputation damage and liability.

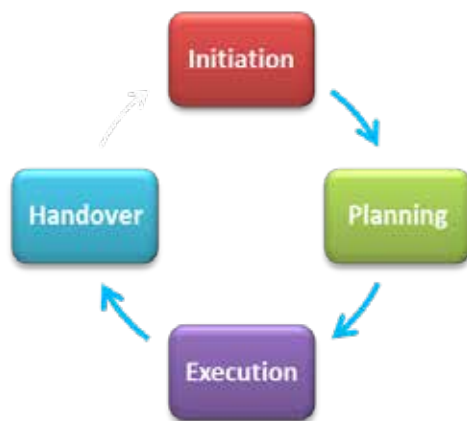
The construction industry is generally a high-risk and low return (percentage) loaded industry, with large sized projects and with not much margin or cushion for errors. However, given the massive size of projects, profits to completion in real money terms could be sizeable, if managed effectively, in the EPC (Engineering, Procurement & Construction), where most of equipment are bought out and works sub contracted.

The smaller the project size, the bigger could be the return (profit) percentage with moderate quantum in real money terms. Conversely, the bigger the project size, the smaller is the return (profit) percentage with huge quantum in real money terms. For example, in a 3-year construction project of value USD 1,000 Million, even a low percentage return on revenue of say [4-5] % would lead to profits in the

region of say USD [40-50] Millions. On some special projects, if risks are loaded and allocated more, and based on leverage (& dependence) of seller versus buyer markets & who is dependent on whom, given the situations, profit margins and resultant contract prices could substantially be larger, if handled prudently to completion or could be wiped out if not handled well.

Therefore, there is tremendous need for and benefit to be gained from initially well formulating project strategies and negotiating contracts, and administering them well, optimizing both costs & profit, and resource utilization (time, labor, materials, etc.).

Bid strategies could start upfront from Project scoping e.g. (where possible) clubbing small but similar projects for bidder choices, include optional scope & pricing to offer volume business or leverage on leaving technology open.



Projects Stages Diagram¹



Balancing Three Key Challenges Diagram¹

Construction Project characteristics & need for Strategy innovations:

- Construction projects are complex. They need the integration of multiple activities, with the added pressures of delivery in the proper manner, within cost, within time and without compromise in quality.
- The project executions are unique, highly challenging and very different from routine and standard operations of other fields and require unique & high technical skills and management techniques. It requires meticulous planning to minute detail, organizing and aligning the required resources to ensure smooth execution, continuous monitoring & control to detect and recover from delays and derailment, if any and to ensure on time, within cost delivery & with quality completion.
- Construction Projects usually follow stages in identification and conception of a project, evaluation of technical & commercial feasibility, estimation, bidding & contract award, execution & construction, testing commissioning, acceptance, and warranty.
- All construction projects constantly face three key challenges i.e. timeliness (for completion), cost control (money limitations) and performance (uncompromising quality) which require to be in balance all the time.
- The tasks are so complex, the challenges far too many, that it requires special & different strategies to ensure success.

Strategies to cover comprehensively all areas of construction projects

The major aspects in real world project execution cover from the 'concept to commissioning' stages of complex construction projects. They would cover innovations and strategies (from different perspectives of Owner (Buyer) & Contractor (Seller) and their respective requirements and objectives-which are completely different) in all stages and

aspects of Project/Contract cycle. They would include, but not limited to, in below macro areas & aspects:

- Project feasibility by Buyer- Technical & Commercial feasibility and front-end design with optimum technical specifications (avoiding over design and lack of clarity in scope).
- Bidding and Contract Award-Pre-qualification, Scope formulation & risk allocation, suitable form of Contract.
- Pricing- Contracts pricing strategies- competitive bidding but with optimum returns, different pricing strategies (market entry pricing, marginal cost pricing, cost plus pricing, advantage pricing etc.), Price schedule and 'take- out' prices, alternative design/innovative technology with value engineering pricing, Strategies in price loading and/or qualifying the unknown, Strategies in price indexation and escalations.
- Partnership strategies -Partnership deal synergies, and risks sharing methods, Joint venture/Consortium arrangements, exclusive pre-bid partnership arrangements.
- Risks allocations among bidding partners (based on area of expertise), Risks allocations between Buyer & Seller, Optimum tradeoff between risks versus returns, and liability and indemnity caps & safeguards.
- Strategies in key terms & conditions-General & Special conditions-implications for both Buyer and Seller-Penalties for delays versus Bonus for early completion, Performance Penalties, Consequential damages and liability caps, Subcontracts and back to back terms, Permits and approvals-allocation of responsibility, Force majeure situations & safeguards, Site risks (allocation of the unknown), performance guarantees and securities (parent company guarantees), payment terms & linking of progress payments to project S

curve progress, supplies versus services price splits, leveraging for technical expertise (and tax planning) in IK and OOK₂ splits, international best practice and focus on collaborating and emphasis on dispute avoidance.

- Design engineering, procurement & supply, construction, warranty-Strategies in contracts administration, project execution and the risks mitigation, adapting innovative methods in contract administration based on developments & situations at opposite party's side etc., project insurance innovations for special risks, Quality & schedule controls, Project management and financial management intricacies (e.g. split & revolving LCs for cost savings, first collect & then pay to optimize financing), Monitoring & controls and Warranty limitations.
- Settlement of other key issues, as arising and at Contract Closure-Strategies to deal with in Cost and Time overrun-allocation of factors between Buyer & Seller, Successful settlement of claims & counterclaims-they generally run into millions of Dollars in international contracts, dealing with settlement of extra works arrangements arising and Contracts issues, negotiation strategies at various stages.

To sum up, when strategically managed well from concept to commissioning, the construction projects, which are actually very interesting & challenging, can actually be highly rewarding & yielding good returns & benefits.

References:

[1] [Balancing Three Key Challenges Diagram Source, https://huntedhive.com/articles/4-things-to-know-when-building-a-two-sided-marketplace/](https://huntedhive.com/articles/4-things-to-know-when-building-a-two-sided-marketplace/)

[2] IK-In kingdom, OOK-Out of Kingdom



Lift your life by extending emphatic hands to many lives

Bassim Mohammed Al-Khazal
Senior Accountant, Accounts Receivable

To volunteer, means simply, to be motivated and give one's time or energies to work towards a project or cause that you are interested in. Volunteering gives individuals the chance to explore avenues that would not usually be open to them. This experience enables an exchange of cultural and social contact between volunteers and their host nationals. Everyone has a qualified and talented major he can play with volunteer roles and express his knowledge to social culture who needs lift up his self.

At present we have so many volunteer institutions you can easily register and commitment yourself to do a good job. For example the Association of blood Donation. You can volunteer by register your full information identified your Blood class and submitting your mobile number then they will call you for any emergency determine the availability time.

There is a center sponsored by "H.H. Prince Mohammed Bin Salman Al Saud Volunteering Platform" enables

all Saudi nationals to apply for any volunteer position in the Kingdom of Saudi Arabia. There are so many non-profit organizations, introducing multiple courses and they ask for any qualified people. Volunteering is not all about benefiting the people you know best, but it is about helping those strangers who need you most.





Performance Based Training

Nehemias G. Baniqued
 Technical Trainer, Human Capital Development

Successful companies consider training as basic strategy. Varied training methodologies are deployed, aimed at equipping staffs with knowledge, skill and aptitude to handle intricate tasks. Many training systems are employed, one of them is task or performance-based training.

Performance-based training is simply training people according to the tasks they are expected to perform on job.

Performance-based training requires identifying tasks per job position, through tasks-need-analysis. Each task has a Task Operating Instruction (TOI). Critical task must have a procedure, known as “standard operating procedure”.

For example, Boiler Feedpump is a critical component of Feedwater System. Before start-up, pre-start check procedure must be completed. Safe start-up relies upon adequacy of system pre-start. A pre-start TOI ensures all components are align to ready-to-start condition.

Skill requirement is complimented by training instruction consisting of flowpath description, component detail, operation philosophy and alarm response. These comprise the courseware for the performance-based training.

Figure 1 illustrates the performance-based training cycle.

The Human Capital Development Department recently launched Marafiq Academy which has embark on this direction. The goal is to arm personnel with technical knowledge

and skill, endeavoring to have multi-skilled personnel, giving them the advantage among their peers in the industry.

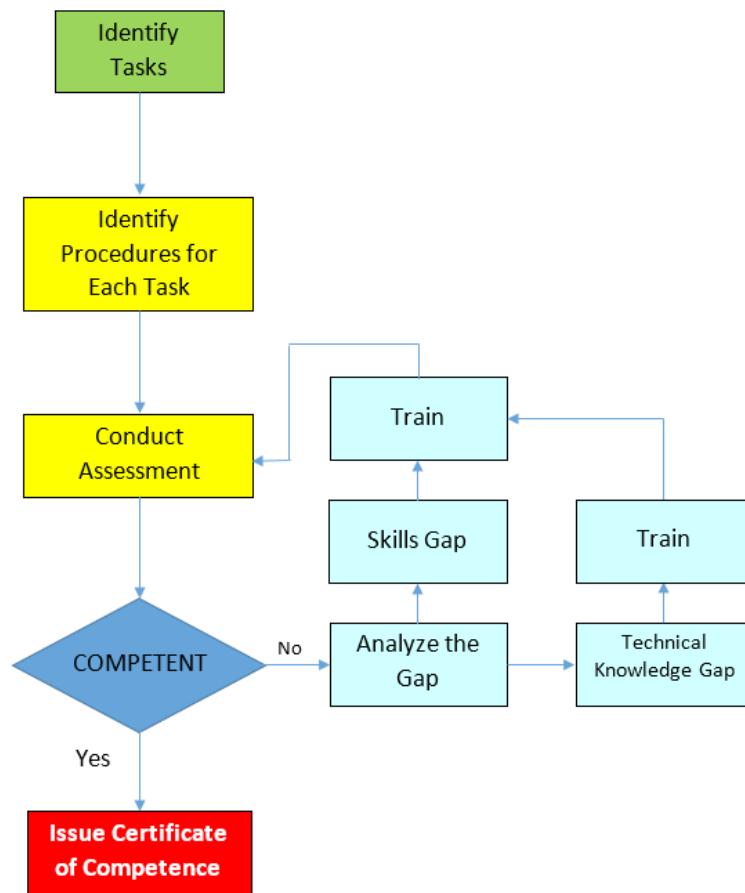


Figure 1: Performance Based Training Cycle



Basic steps to lower heavy equipment and machinery maintenance costs

Mohamad Ariefudin Bin Malik

Lead Engineer (A), Heavy Equipment & Machineries

Hheavy equipment and machinery section of MaSa partly responsible to reduce equipment expenses by helping Business Units keep uptime high, keep maintenance costs low and extend equipment's useful life.

Here is a closer look at the cost-saving principles and how to apply them to daily activities.

1. Keep a sharp eye on expenses

Good records help us make good decisions. We should be able to determine in a short time how much we have spent on manhours, parts and supplies for any machine since we have owned it and be able to tell which machine is costing us the most money.

2. Practice good preventive maintenance

The most important component of maintenance is inspection. That involves knowing what we are looking for and ensuring that your equipment is within the manufacturer's specifications. Besides describing the correct specifications for various equipment components, we can use our manufacturer's manual to create a preventive maintenance schedule. Our PM program is on operating hours, rather than the calendar days. In addition, we have to review the results of preventive maintenance checks periodically. We may find that we need to decrease the service interval or that we can extend it.

3. Train our personnel

Carrying a toolbox does not necessarily ensure that our technician has the skills to maintain your equipment properly. It is highly recommended to use qualified technicians who are trained in the correct procedures and practices needed to minimize downtime and associated costs.

4. Train our operators

Because they work directly with the equipment daily, operators are in an ideal position to identify problems and make minor adjustments. Make sure our operators assume responsibility for their equipment and are properly trained in making daily and weekly checks and care for their truck and machine.

5. Spend on equipment wisely

Critical decision making is essential when deciding to spend more for repairs than the machine's book value. Instead of replacing an engine, it may be smarter to apply that money to a new machine with better technology that will last longer.

