

## *Water Arabia 2015*

*18 Feb 2015, Wednesday*

*Thank you. A special thanks to the organizers of this event. The main objective of this conference as stated on the website is to “highlight the magnitude of the water sustainability problem” in the region and to provide “solutions.”*

*In this statement suggests two things:*

*One, that we have “problem.” Water, as a reliable abundant resource, is facing huge and immediate challenges. The problem is not limited to this region alone, but it can be considered a bigger more immediate problem, a strategic threat to the region’s growth and stability.*

*Two, there is a challenges for us. He encourages us, the people gathered today in this room, to solve the problem, to put our heads together, work hard and come up with solutions.*

*While projected water demand over the coming 15 years is greater than the current capability to supply it, the good news is, there are solutions. We are living in times of great change. We are at the beginning of what is known as the third industrial revolution, according to the economist Jeremy Rifkin. As big an impact on the world as steam power, machine tools, manufacturing, electrification, internal combustion and carbon fuels had on the 19<sup>th</sup> and 20<sup>th</sup> century, the third industrial revolution will have an even greater impact. It will change the way we work and the way we live.*

*Renewable energy, Big Data, Smart Grids, 3D Printing, Materials Design, Robotics, Nanotechnologies, Energy Storage...these are resulting in big change,*

*resulting in innovation and realignment in all industries, including the water industry.*

*And what is the driving force? The driving force is a commitment to Sustainability.*

*To translate that into our own industry, the water industry, means a commitment to water reuse and water treatment, commitment to conservation and smart water management.*

*Taking concepts such as “Cradle-to-Cradle” industrial processes and “closed-loop cycles” that minimize waste, conserve energy and recycle, implementing them and turning them into reality.*

*Our industry in many ways leads other industries in this regard, but more must be done, and the rate of innovation must continue its acceleration. We must not rest.*

*In the water industry, we are on the verge of a new era, on the verge of disruptive innovation that we need to push and see through. The continued advancements in the design of membrane filtration units and the use of nanotechnology in RO processing are such examples. These gains will have a great effect on operational efficiency and membrane durability and lifespan as they find their way to market. Which in turn will result in operating costs and energy consumption in the production of clean water dropping dramatically...producing more with less.*

*The increased rate of water recovery and the move towards zero desalination discharge; bio-filtration and electro-coagulation in treatment; automation, smart systems in supply-chain, operations and transmission; advancements in all these areas are having a cumulative effect on our industry.*

*Energy supply is being addressed in both efficiencies and alternative supplies to energy. Advancements that create more efficient thermal processing are causing a second look at the tried and proven technology of thermal desalination on which large-scale seawater production depends. And energy recapture*

*advancements are demonstrating how a closed-loop approach can be applied in our industry.*

*And of course, what I find most important and most innovative is the introduction of renewable energy supplies to large-scale desalination operation, 10K m<sup>3</sup> or above, or in the case of Al Khafji, 60K m<sup>3</sup> of water production per day, powered by solar.*

*Renewable energy in large-scale desalination is a game-changer. It not only slashes costs of running and operating a plant, it frees our industry from complete dependence on subsidies that distort market economics and have economic downstream impact for national and regional economies. It sets the industry on a course for fast and rapid growth by reducing one of our major challenges, the cost of energy. Through renewables, we will be able to build more plants and increase desalination capacity both regionally and globally. So what stands in the way of pursuing our commitment to sustainability? I don't think its technology that stands in the way, if we continue the advancements at this rate. The technology is there, or it is in the pipeline, or perhaps it is in the mind of some young researcher, waiting to be developed. I have had the privilege to meet some of most talented bright minds in R&D. I am proud to say some of the brightest are here in the Gulf and here in Saudi Arabia, people who are capable of solving, Insha'Allah, almost any problem. What stands in the way or what threatens to slow our progress toward sustainability is our ability to act. The challenge we face is in execution and implementation ...in our strategic planning ... 4*

*the ability to make clear and decisive strategic choices. The challenge is in our ability to think and plan effectively across all stakeholders. It is in developing policy-making that incentivizes and supports sustainable enterprise in our industry. It is in ensuring financial underwriting truly understands the low-level of risk, the certainty of return on investment.*

*Our challenge is the difficulty in creating a shared vision of what can be achieved, and of having a true taste and appreciation of the opportunity before us ... combined with a reluctance to change and a reluctance to act boldly.*

*To overcome this challenge requires leadership and commitment, leadership at all levels, leadership from each and everyone of us here today in order to seize the opportunity of sustainability.*

*Opportunity is a window. As Tom Peters, the management expert, famously said, "If a window of opportunity presents itself, don't pull down the shade."*

*Thank you.*