

Never mind the reserves,
what about the people?

Middle East Energy
and Resources

Managing scarcity
for the future



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For those of us who are old enough to remember - and judging by the average age of employees in the global energy and utilities sector, that means most of us who work there - the origins of a shortage of talent lie back in the 1990s. At that time, a series of mega-mergers in the oil and gas industry led to a wave of cost cutting, redundancies and outsourcing, as a result of which many technical people who were then entering mid-career left the industry for good. At the same time, much of the global utilities industry was in the throes of restructuring, privatization and regulation, as governments tried to inject efficiency and accountability into previously state-owned enterprises, and to turn these utilities into businesses. The effect of this reshaping of the utilities industry was similar to that seen in the oil and gas industry; a shedding of experienced labor entering mid-career.

Nearly two decades later, the effect of this de-manning in energy and utilities is still being felt in an industry sector which relies more than most upon skilled manpower, particularly for health, safety and environmental reasons. Unlike the financial services or telecommunications sectors, automation can only go so far; if things go badly wrong on an oil rig or in a nuclear power station (as they have done in the past two years) qualified, technical people need to be present to make informed, balanced and pragmatic decisions. The problem is that these people are becoming older and fewer, but are in as much demand as the oil, gas and electricity which their skills help to supply. The average age of technical staff in the oil and gas industry is over 50 years old. In the UK, the cradle of nuclear energy, there will not be enough inspectors in three years' time to monitor nuclear installations, as they will all have retired by then.

In the Middle East, the effect of this skill shortage is particularly pronounced, for the above reasons and for a number of others. Let us look first at oil and gas, then at utilities, and finally examine the overreaching demographic challenges which the Middle East faces in developing its own energy and utilities skill base.

In the recent past, Middle Eastern national oil companies (NOCs) have had to compete with other regions of the world for the best available human resources from their partners, the International Oil Companies (IOCs). Until about five years ago, this competition was relatively unsuccessful, as IOCs deployed their best exploration and production talent instead to more technically challenging areas of the world such as the deepwater Gulf of Mexico, Brazil, West Africa, the Caspian and emerging areas of Asia-Pacific. The effect of using this talent elsewhere was that Middle Eastern NOCs were not exposed to the best in class experience in science, engineering and technology

that the IOCs had to offer. In the past five years however, things have started to change, as the Middle East re-emerges as a priority investment area for those IOCs attracted by the size, availability and stability of the resources available in the region. Middle Eastern resources were always there - Saudi Aramco's breakthrough well was drilled in 1937, Qatar Petroleum's in 1940 and ADNOC's in 1950 - but they were not always prioritized by the IOCs in the following half century. Now we are seeing significant IOC investment throughout the Middle East, and throughout the whole of the oil and gas value chain, although it will take time for the critical knowledge transfer to work its way through to the next generation of Middle Eastern nationals.

Middle Eastern utilities, comprising national electricity and water companies (NEWCs) are currently embarking upon the same wave of restructuring, privatization and regulation experienced in many other parts of the world over 20 years ago. These utilities (many of whom combine electricity and water operations due to the significant requirement by water desalination plants for electricity) share a number of operational and organizational characteristics similar to the government departments to which they report.

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However, they have not had the same degree of exposure to science, engineering and technological expertise as their NOC counterparts through joint ventures, and their resulting skill shortages in these areas are therefore more acute. Nevertheless, to achieve a projected significant increase in electricity and water consumption driven by industrial, commercial and residential growth, the skills will have to be there even though, as mentioned above, they are in increasingly short supply in other parts of the world.



What can be done to ease the talent shortage in the Middle Eastern energy and utilities sector? There are a series of measures which, when taken together, can provide solutions for the short-, medium- and long-term

Unlike the developed world, but in common with many emerging markets, the Middle East also has a special challenge in the talent arena, particularly in the energy and utilities sector: to satisfy a young population with aspirations for the rewarding career paths that they see elsewhere. The shortage of Middle Eastern nationals in meaningful, full time employment is being urgently addressed by governments throughout the region by a "carrot and stick" approach which compels and motivates organizations to take minimum quotas of nationals, whilst funding extensive educational and vocational programs to provide a stream of future talent for the industry.

While at times bureaucratic and insensitive to individual organizations, this is fundamentally the right approach. It is unsustainable in the long- or even medium-term to have key functions in the industry being carried out by transient expatriate labor and even less tenable for

consultants and contractors to play roles which should really be occupied by full time national employees. And yet, until these roles are capable of being filled by properly trained, well-motivated nationals, the current situation, under which the Middle Eastern energy and utilities industry is restricted by talent shortages in other parts of the world, will continue.

What can be done to ease the talent shortage in the Middle Eastern energy and utilities sector? There are a series of measures which, when taken together, can provide solutions for the short-, medium- and long-term. Before an increase in the existing skill base is even contemplated, quick wins can be realized simply by better managing the existing pool of talent within an NOC or NEWC organization or within the industry as a whole. Apart from the benefits which a well thought out and executed organizational redesign can bring, the positive contribution of a professional HR function, fully integrated with the business operating units which it serves, is crucial for developing coherent and proactive talent strategies to enable them to compete in a global resourcing market. A separately identified HR function is relatively unknown to the Middle East, where HR activities are sometimes regarded as part of an overall administrative function, tasked with reactive fire-fighting rather than constructive, preventative action. A professional HR function, empowered by senior management and staffed by well-trained individuals, can address a whole range of issues such as recruitment, training, career progression, remuneration, and retention of an organization's most valuable assets.

Sponsorship of continuing education, also a key element in staff development and retention, is gradually becoming a core strategy adopted by the NOCs. Last year Saudi Aramco paid for the education of 1,922 graduate and undergraduate Saudi students, including 1,138 in North America, 439 in Europe, and 217 in Saudi Arabia itself. Saudi Aramco also supports a College Preparatory Program that gives Saudi secondary-school graduates the skills they need to succeed in international universities. The company runs the equivalent of community colleges that give thousands of Saudi young people the technical skills they need for employment, and it has other extensive collaborations with Saudi and international higher-education institutions. In 2009, Saudi Aramco set up a "university relations" division to manage such partnerships.

As far as closing the mid-career skills gap in energy and utilities is concerned, other quick wins can include identifying and fast tracking young employees according to their technical and business development skills, as well as incentivizing the delayed retirement of long-serving employees. In the long term, however, only a sustained program of attracting school students at an early age into science, engineering and technology education and careers, sponsored by the NOCs and IOCs working together, will solve the problem which they helped to create 15 years ago.

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The attraction to energy and utilities begins early on, in the classroom and not at the jobs fair. The energy and utilities industry needs to promote itself, much more effectively than in the past, as an attractive and exciting industry where young people can enjoy a satisfying, socially responsible career. At the moment, through the eyes of an increasingly "green" generation, that industry is seen by many as polluting, irresponsible and self-serving. And if this continues, it will not get the reserves, let alone the people that it needs.

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