

# AES Arabia

*Saudi's water specialist is innovating to stay ahead of the competition*

**A**ES has been designing and installing membrane treatment systems since 1985, and has taken up an important role in developing reverse osmosis through such things as improved pre-treatment methods and innovative, cost-effective designs. At 11,000 square metres, the company's Riyadh manufacturing and support facility is one of the largest in the Middle East, and allows AES to operate throughout the region.

"The scarcity of water has pushed the envelope for water engineering to the limits, and in countries as dry as Saudi Arabia, this poses the ultimate challenge for engineers to keep coming up with innovative and effective solutions," says Asad Iqbal Khan, business development manager.

Such innovation saw the firm recently work with one client to successfully boost the yield from a very challenging well water source. Faced with very hard water, containing silica, iron and suspended solids, the firm employed techniques including media filtration, low-pressure RO and high rejection membranes to increase the yield to 7,200 m<sup>3</sup>/day, from a total inlet of 7,950 m<sup>3</sup>/day.

The firm now has expansion and investment plans in several countries, and is currently taking steps to further invest in research and development to further advance its water and wastewater expertise.

AES says that standards in the industry are becoming ever more sophisticated, as water resource issues become increasingly challenging and require advanced technologies to ensure efficient processes.

"That's why AES provides total water management for all waters used by, generated by, or emanating from, the petroleum and petro-

chemical industries. No matter what the application or global location, we have the experience and expertise to resolve water issues. The group catering to oil and gas and petrochemicals comprises some 300 dedicated professionals in the design and execution office," says CEO, Fawaz Malki.

The advantages, Malki believes, of firms' focusing more on their water processes are improved efficiency gains and water sustainability.

"The energy sector in general, and the petroleum industry in particular, is one of the largest users of water in the manufacturing process. The complete process depends on water. In the Middle East, water resources are considered to be scarce and expensive. Alternative water sources - such as wastewater and produced water - can provide an economical, ecologically friendly option towards water sustainability.

"In addition to that, the ever evolving and maturing environmental discharge standards and regulations have driven the use of technologies and solutions to keep producers competitive," he concludes. **Utilities**