



Oasys Water shares ZLD technology at BlueTech Forum

Oasys has recently installed the world's first commercial application of forward osmosis in a zero liquid discharge (ZLD) application

BlueTech Forum is pleased to announce membrane technology company Oasys Water is joining its Innovation Showcase, which is taking place in San Francisco on 1 June. Ten companies will take part in the event, each representing a different aspect of innovation in water technology.

Oasys is the leading provider of integrated forward osmosis (FO) systems for high recovery desalination including brine management and zero liquid discharge (ZLD). Its ClearFlo Membrane Brine Concentrator (MBC) uses a powerful, patented draw solution which is based on ammonium bicarbonate. This pulls water molecules from the brine reject stream across a semi-permeable FO membrane for recovery from the system as fresh water, after the draw solution is extracted by vaporisation. Combining this with a crystallizer to completely recover the fresh water available in a wastewater stream provides the highest recovery rates and reusable product water.

MBC technology can take total dissolved solids from 40-50,000 ppm to 250,000 ppm. As the stream becomes more concentrated, higher quantities of fresh water become available for reuse.

ClearFlo MBC technology is suited to industrial processes with high levels of salinity where high recovery of fresh water is desirable, such as power and oil & gas. Power generation is the largest industrial user of water worldwide, and regulatory pressures are also mounting on large water users to reduce the volume of their waste streams.

To date, Oasys has found greatest traction for its technology in China, which has very strict regulations requiring ZLD. The company has recently installed the first commercial application of FO in a ZLD application in the world at the Changxing Power Plant in Zhejiang Province.

John Tracy, Oasys Water's Director of Marketing says "In China we've been working in partnership with our domestic partner Beijing Woteer to install the MBC in a coal-fired power station in Zhejiang. This is the first-ever commercial application of FO in ZLD.



“Based on the success of this project, we now have further installations planned in the Chinese thermal power and coal-to-chemical refining industries.”

O2 Environmental Technology Assessment Group (TAG) member Graeme Pearce says, “Interest in forward osmosis has grown sharply both in academia and several specialized companies including Oasys. There has been good progress in addressing the challenges of commercialisation too and several attractive application niches are now developing which could present an ideal opportunity for diverse product offerings from specialised suppliers.”

BlueTech Research Chief Executive Paul O’Callaghan says, “Oasys Water was an obvious choice for the Technology Showcase because its ClearFlo MBC demonstrates the successful transition of FO from R&D into commercial application. The importance of low energy freshwater recovery in industrial applications is only going to grow in the coming decades so we are delighted to have them on board.”

Alongside the Innovation Showcase, BlueTech Forum 2016 is also hosting two Water Technology Roundtable Briefings on topics relevant to FO technology:

- *Brine Management and Zero Liquid Discharge – competitive landscape and next generation technologies*, hosted by Michael Mickley, TAG Member, O2 Environmental
- *Membrane Technologies*, hosted by Graeme Pearce, TAG Member, O2 Environmental

BlueTech Forum is taking place on 1st June in San Francisco.

To register and for more details visit www.bluetechforum.com