FOR IMMEDIATE RELEASE:

Biopharma Celgene Installs RDI™ Desalination Technology to Advance Water Stewardship

Innovative reuse system from Atlantis Technologies reduces water and chemical usage

DANA POINT, Ca., February 21, 2019 – An RDI™ desalination system installed in global biopharmaceutical firm Celgene's flagship facility in Phoenix, Arizona, has been reusing more up to 23,000 gallons per day (gpd) of wastewater since being installed in November 2018. The innovative radial deionization system from Atlantis Technologies treats up to 26,000 gpd of wastewater from various streams in the facility and produces 23,000 gallons for reuse in the facility's cooling towers. The new wastewater reuse system supports the company's global strategic initiatives of reducing water usage at its plants and Celgene projects annual cost savings of at least $28,400 and up to $50,000 which includes reduced chemical usage in towers.

"One of Celgene's corporate sustainability goals is to reduce total water withdrawals by 10 percent by 2020, so the installation of this system helps meet our environmental stewardship efforts," said Anthony J Benenati, MBA, PE, CEM, manager of aseptic manufacturing support at Celgene. "We chose to start in Phoenix where the clean water supply is so limited and water stewardship is a critical community issue. We plan to expand the current system to reuse excess reclaimed water for other water needs around this facility and others within the company."

The 12-cylinder, vertically-mounted RDI™ radial deionization system reduces the salinity of the feed water to the cooling tower, reducing chemical usage by as much as 50 percent. Developed by Atlantis Technologies, radial deionization is an improved and patented form of capacitive deionization.

ApHinity® in Corona, California, engineered and delivered the complete package of water-saving equipment to Celgene. In addition to the RDI™ system, the package included resin bottles, collection tank and pumps, booster pump, softening bottles, receiving tank and level sensors, and an Atlantis control panel that controls the entire system.

"With the RDI™ technology, desalination has a lower cost of ownership and higher clean water recovery than other capacitive deionization and reverse osmosis systems," explains Patrick Curran, CEO of Atlantis Technologies. "The system requires less maintenance because of the low operating pressure of the system combined with the long lifetime of the RDI™ supercapacitor."

With the Atlantis RDI system, water is passed between two oppositely charged supercapacitors that remove the salt. Once full, the capacitor polarity is switched and a low-volume, high-concentration brine is produced. Cylinders and system can be placed in parallel to increase volume or in series to process high salinity water. The system can also partially desalinate water, known as TDS shaving, further improving economics for applications such as cooling towers and waste discharge.

About ApHinity

ApHinity™ from EAI is a brand of technologies based on the science of chemical affinity. Targeted ion exchange, radial deionization, and natural low-pressure osmosis technologies are scientific examples of chemical affinity. Each respective technology leverages the natural chemical affinity for substances to either enter into, remain in, or separate from chemical combination. These technologies play a critical role in the challenging water conservation, reuse, and recycling environments of today. http://www.eaiwater.com/aphinity.php

About Celgene Corporation

Celgene is a global biopharmaceutical firm committed to improving the lives of patients worldwide through the delivery of innovative and life-changing treatments. www.celgene.com

About Atlantis Technologies

Atlantis Technologies addresses the global problem of desalinating industrial water. Winner of multiple innovation awards, their patented RDI™ technology in conjunction with a supply & license agreement from Voltea, Inc. offers lower cost of ownership than state-of-the-art desalination technologies and clean water recovery of up to 95%. www.atlantis-water.com

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