



## **Sylvan Source (SSI) announces water treatment pilot test hosted by Southern California Utility in collaboration with the Electric Power Research Institute (EPRI)**

**November 29, 2016 – San Carlos, CA.** SSI announces completion of a pilot test of the SSI Core water treatment system at Southern California Edison's Mountainview plant in Redlands, CA. "Demands to supply water to a growing population are increasing worldwide and are having profound impacts on the use of limited water resources," said Richard Breckenridge, program manager at EPRI. Breckenridge also noted: "The Electric Power Research Institute's (EPRI's) Water Management Technology program (Program 185) seeks to identify, evaluate, and demonstrate cost-effective and reliable treatment technologies capable of achieving proposed or anticipated pollutant limits on all streams that may be discharged from power plants and other industries, thus providing an overall public benefit. The program also evaluates the performance, operability, reliability, and cost of innovative technologies designed to reduce water withdrawal and consumption while minimizing the impact on thermal efficiency intended to help facility owners develop effective water treatment compliance and water conservation strategies. We are grateful for Sylvan Source providing a pilot system for our test and the Southern California Edison Mountainview plant supporting the demonstration by volunteering to be a host site. Results of the demonstration test are expected to be published in 2017."

Laura Demmons, SSI Chairman and CEO, stated that "SCE and EPRI clearly demonstrate global leadership in their ability to both identify truly game-changing technologies and then to comprehensively demonstrate that these technologies are very real through rigorous field testing with live feed water streams. SCE was an outstanding pilot system host, and SSI is most appreciative of both SCE's and EPRI's support throughout the entire process."

According to Demmons, the SSI Core is a breakthrough thermal water treatment platform that does not rely on conventional heat exchanger technologies for thermal energy transfer. Based on independent studies prior to the EPRI test, Sylvan Source believes the SSI Core is many times more energy efficient than conventional thermal systems, and this drives significant reductions in SSI's cost structure in all applications independently benchmarked. For industrial waste stream applications, SSI's cost structure has been validated at:

- Approximately 50% lower in CapEx than all conventional membrane or thermal technologies
- Approximately 50% lower in OpEx than all conventional membrane or thermal technologies

Initial observations of the pilot study at the SCE Mountainview plant indicated that the SSI Core treated plant waste streams, such as high salinity cooling tower blowdown, resulting in SSI product water between two and four ppm (parts per million) TDS (total dissolved solids), and there were no performance or reliability issues throughout the field-testing.

The stage to stage delta T (change in temperature), a significant element of the SSI Core energy efficiency, was found to be in the range of 2-3 degrees C. A delta T of 3 degrees C was previously benchmarked by DiFilippo Consulting, EPRI and a North American oil and gas company.

The SSI Core consistently demonstrated in the range of 90% recovery rates.

SSI's technology portfolio is comprehensively covered by a large number of granted and pending patent applications around the world.

## **About Sylvan Source®**

Sylvan Source, Inc. develops novel industrial and municipal water treatment and thermal energy capture, transfer, release and storage systems. The company's technology platforms are applicable to a broad range of industrial processing and thermal energy management applications, as well as markets with complicated or challenging water treatment opportunities. SSI's technologies incorporate fundamental cost structure advantages with significant energy and process efficiency gains.

The company has a water treatment pilot plant operating in San Carlos, California that has successfully treated a wide range of waters with significant levels of contamination, including seawater and highly concentrated seawater, FGD scrubber waste streams from a coal-fired power plant, chemical waste streams from boiler cleanup operations, produced water and hydraulic fracturing flow-back water from oil and gas operations and agricultural run-off from a municipality.

SSI has been recognized as both a Red Herring Top 100 North American Private Company and a Red Herring Top 100 Global Company, received Frost and Sullivan's Product Innovation Award, and was selected as the Technology Idol winner at the 2012 Global Water Summit in Rome.

SSI is headquartered in San Carlos, California and is privately held. For more information, please visit [www.sylvansource.com](http://www.sylvansource.com).