



SHARC Energy Proves to U.S. Utilities and Investors PIRANHA HC can provide up to 99% GHG reduction and 61% Energy Savings

- **SHARC™ ENERGY'S PIRANHA™ Wastewater Heat Recovery System can be installed or retrofitted into most buildings for dramatic reductions in energy costs and carbon footprints**

VANCOUVER, British Columbia, Oct. 14, 2020 -- Utilities, municipalities and private sector investors in the United States will today be shown ground-breaking savings in energy costs and greenhouse gas reductions achieved during a three-month demonstration of a unique wastewater thermal recovery technology built by **SHARC International Systems Inc. (CSE:SHRC) (FSE:IWIA) (OTCQB:INTWF) (the "Company" or "SHARC Energy")**.

Today's SHARC Energy presentation at the [Incubatenergy Labs and Ameren Accelerator Demo Day](#), attended by leading U.S. electric power sector leaders, will demonstrate a residential building equipped with the PIRANHA HC wastewater energy recovery system obtained dramatic energy savings by completely offsetting the gas-boiler system in a 60-unit residential building in North Vancouver, British Columbia.

Results included a 99-per-cent GHG emission reduction and a 61-per-cent reduction in monthly utility bills, while achieving an uninterrupted supply of hot water and cooling to the complex when the PIRANHA HC was installed.

Based on the data collected from the building, the natural-gas boilers have an annual energy cost of \$16,906 and annual GHG emissions of 68,580 kg. In comparison, the PIRANHA HC unit has an extrapolated annual energy cost of \$6,625 and annual GHG emissions of only 669 kg. This represents an annual savings of \$10,281 and 67,911 kg of GHG emission reductions. The estimated useful life of a PIRANHA is 25+ years.

"We are honoured to be chosen to present our wastewater thermal energy recovery technology to this prestigious audience," said SHARC Energy CEO Lynn Mueller, who will be presenting the results virtually. "The PIRANHA HC system collects the water we put down the drain every day and captures the thermal energy that would be otherwise lost. This technological achievement is not only good for the bottom line for building owners and residents, it will also have a positive global impact on the environment as the technology is scaled."

SHARC Energy's demonstration — carried in collaboration with Ameren Corporation, Consolidated Edison, Southern California Edison and the Tennessee Valley Authority — was independently assessed by the Electric Power Research Institute ("**EPRI**").

The next steps to further validate SHARC Energy's technology is identifying and implementing multiple demonstration sites with an independent evaluation to quantify the performance over a longer period of time. The Company and partnering utilities are seeking to install PIRANHA in sites such as larger apartment buildings, laundromats, breweries, food production, hotels, seniors-living facilities and other commercial and industrial operations and buildings. It is anticipated that additional utilities will look to partner on additional projects within their regions/jurisdictions.

The demonstration project presentation delineates that the PIRANHA HC, a self-contained wastewater heat pump that provides hot water and air conditioning, operates at an optimal and consistent Co-efficient of Performance ("**COP**") due to the consistent and renewable nature of wastewater. This is an advantage over air-source heat pumps that see dramatic fluctuations in efficiency, with the potential for negative COP, during defrosting cycles. This makes PIRANHA particularly efficacious in cold-weather markets, such as New York and the U.S. eastern seaboard.

Key results of the PIRANHA demonstration project include:

- 61 per cent energy savings reported by building management.
- 99 per cent GHG reduction from gas boiler use.
- Production of 100% of the hot water at 140°F, completely offsetting the use of gas boilers.
- An average Co-efficiency of Performance ("**COP**") for hot-water production of over 3.7 over the project term and peak COP of over 5.
- Reduction of thermal water pollution. PIRANHA HC removes the heat from wastewater, so that it reduces impact on ambient water temperature in rivers, lakes and oceans when it is released.

"PIRANHA units are already installed in the U.S., Canada and Australia and we have more installations around the world planned in the months ahead," said Mueller. "We are now in full commercialization mode."

The [Demo Day registration](#) is open now to the public and shareholders and other stakeholders are encouraged to

join. Subsequent to Demo Day, please check the Company website for content related to the Incubatenergy Labs Challenge.

About SHARC Energy

SHARC International Systems Inc. is a world leader in energy recovery from the wastewater we send down the drain every day. SHARC Energy systems recycle thermal energy from wastewater, generating one of the most energy efficient and economical systems for heating, cooling & hot water preheating for commercial, residential and industrial buildings, reducing energy costs and carbon footprints. SHARC Energy is publicly traded in Canada ([CSE: SHRC](#)), the United States ([OTCQB: INTWF](#)) and Germany ([Frankfurt: IWIA](#)) .

Further information about the Company is available on our website at www.sharcenergy.com or under our profile on SEDAR at www.sedar.com.

ON BEHALF OF THE BOARD

“Lynn Mueller”

Chairman and Chief Executive Officer

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