



Sirius Instrumentation & Controls

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[Sirius Instrumentation & Controls](#) is breaking down barriers to make solar-powered chemical injection pumps practical and economical, paving the way to help the oil and gas industry reduce its environmental footprint. It used to be assumed that solar power could not be an effective solution because of the cost and lack of reliability in cold, dark, and forested oil and gas sites. Sirius is helping to demonstrate the use of solar as a reliable energy source and a means to optimize chemical injection pumps.

Tracking Emission Reductions

Sirius is also using built-in tracking technologies and in-house designed flow measurement devices to track reduced emissions of each pump. Most recently, systems are being designed to use remote communication to send the emission reduction data back to a central data gathering system, which allows Sirius to measure and track the progress from pumps anywhere in the world. In Canada, Sirius works closely with carbon credit capture companies such as BlueSource and Cap-Op Energy to track the amount of CO₂e emitted by each pump, and these data allow the oil and gas industry to better demonstrate environmental success

In a study done by ConocoPhillips, one chemical injection pump emits an average of 145 tonnes of CO₂e/year. There are tens of thousands of pneumatic chemical pumps in the province of Alberta alone.

Increasing Reductions Year-Over-Year

Ten years ago, Sirius was reducing emissions in the oil and gas industry by an estimated 0.4 million metric tonnes of carbon dioxide equivalent (MMTCO₂e) per year. Today, Sirius electric chemical pumps are reducing emissions by nearly 4 MMTCO₂e—10 times as much. As the growth of emission reduction has remained fairly consistent year-over-year, Sirius anticipates total additional emission reductions of approximately 2 – 2.5 MMTCO₂e by 2025.

Sirius has had its most significant environmental impact in Canada and the United States. In recent years, other countries have had success reducing costs and emissions with intelligent chemical pump technologies. Companies

in Columbia, Kuwait, Pakistan, Tunisia and offshore companies in Malaysia have worked with Sirius to test and refine solar chemical pump solutions, improving the technology and making it a reliable solution globally to reduce emissions and costs associated with chemical injection.

Learn About the Technologies

The video below describes Sirius's Fusion System, their direct current/solar-powered solution for chemical injection control in oil and gas pumps.

[View more videos.](#)

