

FOR IMMEDIATE RELEASE

Suncor Energy furthers commitment to solvent-based extraction with Nsolv Corporation

Calgary, Alberta (Sept. 16, 2016) – Suncor today provided an update on its work with Nsolv Corporation to test solvent-based extraction techniques and explore advancing the technology to commercial scale implementation. Suncor will continue to test the Nsolv technology, which uses a solvent in place of steam in current in situ bitumen extraction techniques.

Since 2013, Suncor and Nsolv have been working together on a pilot of the Nsolv technology at Suncor's Dover test site, north of Fort McMurray, Alta. Suncor and Nsolv will work together to complete the pilot operations, and evaluate the potential to advance the technology.

"Suncor is pursuing a portfolio of technologies that offer the potential to transform the environmental and economic performance of oil sands production," says Gary Bunio, general manager of strategic technology, Suncor. "External technology collaborations like our work with Nsolv are an important part of this pursuit."

"This marks an important step in Nsolv's work with Suncor and in our journey towards commercialization," said Joe Kuhach, chief executive officer of Nsolv. "We are excited by the pilot results seen to date achieved with the support of one of Canada's leading energy companies, our shareholders and funders. Nsolv believes the pilot has successfully demonstrated the capabilities of the technology and we look forward to further advancing this project."

About the Nsolv technology

The Nsolv process uses the traditional horizontal well technology developed for steam assisted gravity drainage (SAGD), but does not require any water. Instead, Nsolv uses a vapourized solvent, like propane or butane, to provide heat the way steam would in the SAGD process. The solvent also dilutes and mobilizes the bitumen, allowing it to flow at much lower temperatures compared to SAGD. The Nsolv process functions with reservoir temperatures of 60°C, as compared to approximately 200°C in a SAGD reservoir. Due to the low temperature and low pressure required for its operation, Nsolv may also allow the extraction of shallow in situ resources which are currently inaccessible with up to 75 per cent savings in energy efficiency.

The process is expected to produce a lighter, de-asphalted and hence, higher-value oil. Capital and operating costs are then expected to be reduced by foregoing the need to build a water treatment plant and boilers; instead, a relatively small solvent purification plant and solvent vapourizers are required.

Legal Advisory – Forward-Looking Information

This news release contains certain forward-looking information and forward-looking statements (collectively referred to herein as "forward-looking statements") within the meaning of applicable Canadian and U.S. securities laws. Forward-looking statements in this news release include references to: the potential benefits of the Nsolv technology and other technologies being pursued; that Suncor will continue to test the Nsolv technology; that Suncor and Nsolv will work together to complete the pilot operations; expectations relating to advancing the Nsolv technology including the ability of Nsolv to allow the extraction of shallow in situ resources which are currently inaccessible with up to 75 per cent savings in energy efficiency; expectations that technology has the potential to

transform the environmental and economic performance of oil sands production; the expectation that Nsolv technology will reduce the capital and operating costs associated with the SAGD process; potential uses of and efficiencies to be achieved from the Nsolv technology; and the expectation that the Nsolv process will produce a lighter, de-asphalted and hence, higher-value oil. In addition, all other statements and information about Suncor's strategy for growth, expected and future expenditures or investment decisions, commodity prices, costs, schedules, production volumes, operating and financial results and the expected impact of future commitments are forward-looking statements. Some of the forward-looking statements may be identified by words like "expected", "will", "may", "potential", "pursuing" and similar expressions.

Forward-looking statements are based on Suncor's current expectations, estimates, projections and assumptions that were made by the company in light of its information available at the time the statement was made and consider Suncor's experience and its perception of historical trends, including expectations and assumptions concerning: the potential of and development plans for the NSolv technology; the expected impact of the Nsolv technology and the timing thereof; the belief that the pilot has successfully demonstrated the capabilities of the technology; the accuracy of reserves and resources estimates; commodity prices and interest and foreign exchange rates; capital efficiencies and cost savings; applicable royalty rates and tax laws; future production rates; the sufficiency of budgeted capital expenditures in carrying out planned activities; the availability and cost of labour and services; and the receipt, in a timely manner, of regulatory and third-party approvals.

Forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties, some that are similar to other oil and gas companies and some that are unique to Suncor. Suncor's actual results may differ materially from those expressed or implied by its forward-looking statements, so readers are cautioned not to place undue reliance on them.

Suncor's Management's Discussion and Analysis dated July 27, 2016 and its Annual Information Form, Form 40-F and Annual Report to Shareholders, each dated February 25, 2016, and other documents it files from time to time with securities regulatory authorities describe the risks, uncertainties, material assumptions and other factors that could influence actual results and such factors are incorporated herein by reference. Copies of these documents are available without charge from Suncor at 150 6th Avenue S.W., Calgary, Alberta T2P 3E3; by email request to invest@suncor.com; by calling 1-800-558-9071; or by referring to suncor.com/FinancialReports or to the company's profile on SEDAR at sedar.com or EDGAR at sec.gov. Except as required by applicable securities laws, Suncor disclaims any intention or obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Suncor Energy is Canada's leading integrated energy company. Suncor's operations include oil sands development and upgrading, onshore and offshore oil and gas production, petroleum refining, and product marketing under the Petro-Canada brand. A member of Dow Jones Sustainability indexes, FTSE4Good and CDP, Suncor is working to responsibly develop petroleum resources while also growing a renewable energy portfolio. Suncor is listed on the UN Global Compact 100 stock index and the Corporate Knights' Global 100. Suncor's common shares (symbol: SU) are listed on the Toronto and New York stock exchanges.

Nsolv is a privately-owned Canadian, clean-tech energy company devoted to solving the operational and environmental problems of heavy oil extraction. With the support of its shareholders, Hatch Ltd., Enbridge Inc. and Nenniger Inc., the company has patented warm solvent technology for in-situ projects that produces a higher quality oil product from hard to reach reservoirs for a fraction of the cost, all the while doing better for the environment. Nsolv is now primed for further partnerships, joint ventures and license agreements. For more information: www.nsolv.ca.

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For more information about Suncor, visit our web site at suncor.com, follow us on Twitter [@SuncorEnergy](https://twitter.com/SuncorEnergy), or come and [See what Yes can do.](#)

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