



NXT ENERGY SOLUTIONS INC. ISSUES DIRECTION TO ALBERTA GREEN VENTURES LIMITED PARTNERSHIP REGARDING LOAN REPAYMENT

CALGARY, AB, December 13, 2019 / GLOBE NEWSWIRE / – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX:SFD; OTC QB:NSFDF) has issued a direction (the "Direction") to Alberta Green Ventures Limited Partnership ("AGV") to deliver for cancellation the number of common shares in the capital of the Company ("Common Shares") held by AGV that is equivalent to the US\$250,000.00 principal amount (the "Principal Amount") previously loaned by the Company to AGV, the price per Common Share being the volume weighted average trading price of the Common Shares as reported and traded on the Toronto Stock Exchange for the five (5) trading days immediately preceding the date of repayment, and to pay by wire transfer or other immediately available funds all accrued and unpaid interest thereon (the "Interest"), all in accordance with the terms of the promissory note dated September 6, 2019 (the "Loan Repayment").

Calculated at market close on December 13, 2019, the last business and trading day before the date of repayment, being December 15, 2019 (the "Repayment Date"), NXT has elected to receive from AGV, subject to receipt of necessary regulatory approvals (as discussed further below):

- (a) 543,673 Common Shares, calculated as (i) the product of (A) US\$250,000.00, being the Principal Amount, and (B) 1.3183, being the daily average US\$/C\$ exchange rate as quoted on the Bank of Canada's website for December 13, 2019 (the last business date for which a daily average exchange rate was published before the Repayment Date), (ii) divided by C\$0.6062, being the volume weighted average trading price of the Common Shares as reported and traded on the Toronto Stock Exchange for the five (5) trading days immediately preceding the Repayment Date, and
- (b) US\$1,366.12 in Interest, satisfied by way of wire transfer or other immediately available funds.

Repayment of the Principal Amount by way of Common Shares constitutes an "issuer bid" under applicable securities laws, and the acquisition of the Common Shares is therefore conditional upon NXT being exempt from the requirements typically applicable to such transactions. The Company intends to file an application for exemptive relief (the "Requested Relief") with the Alberta Securities Commission (the "ASC") now that the Direction has been issued to AGV and an election to receive Common Shares as repayment of the Principal Amount has been made thereunder. The Company may change its election to receive the entire Loan Repayment by way of wire transfer or other immediately available funds if the ASC does not approve the Company's application and the Requested Relief is not granted, or for any other reason at any time if the Company so decides, in its sole and absolute discretion.

For further information regarding the loan arrangement, please refer to the Company's news release dated September 6, 2019, the Company's management discussion and analysis and interim financial statements for the three and nine months ended September 30, 2019, and the material change report filed on November 25, 2019.

About NXT Energy Solutions Inc.

NXT Energy Solutions Inc. is a Calgary-based technology company with its principal office at Suite 302, 3320 – 17th Avenue SW, Calgary, Alberta, Canada. NXT's proprietary SFD® survey system utilizes quantum-scale sensors to detect gravity field perturbations in an airborne survey method which can be

used both onshore and offshore to remotely identify traps and reservoirs with exploration potential. The SFD® survey system enables our clients to focus their hydrocarbon exploration decisions concerning land commitments, data acquisition expenditures and prospect prioritization on areas with the greatest potential. SFD® is environmentally friendly and unaffected by ground security issues or difficult terrain and is the registered trademark of NXT Energy Solutions Inc. NXT Energy Solutions Inc. provides its clients with an effective and reliable method to reduce time, costs, and risks related to exploration.

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Forward-Looking Statements

Certain information provided in this press release may constitute forward-looking information within the meaning of applicable securities laws. Forward-looking information typically contains statements with words such as "anticipate", "believe", "estimate", "will", "expect", "plan", "schedule", "intend", "propose" or similar words suggesting future outcomes or an outlook. Forward-looking information in this press release includes, but is not limited to: NXT's election as to the Loan Repayment, including the amounts to be received by way of wire transfer or other immediately available funds and the number of Common Shares to be received for cancellation, and any subsequent changes with respect thereto; AGV's compliance with the terms of the promissory note and the Direction; and the ability of NXT to rely on and obtain all necessary and required regulatory approvals and exemptions in connection therewith and to obtain such approvals and exemptions in a timely and efficient manner. Although the Company believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks. Risk factors facing the Company are described in its most recent management discussion and analysis for the three and nine month periods ended September 30, 2019, which has been filed electronically by means of the System for Electronic Document Analysis and Retrieval (SEDAR) located at www.sedar.com. The forward-looking statements contained in this press release are made as of the date hereof, and except as may be required by applicable securities laws, the Company assumes no obligation to update publicly or revise any forward-looking statements made herein or otherwise, whether as a result of new information, future events or otherwise.