



NXT ANNOUNCES \$2.32 MILLION PRIVATE PLACEMENT OFFERING OF WHICH \$1.79 MILLION HAS BEEN SUBSCRIBED BY INSIDERS

CALGARY, AB, December 22, 2022 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTCQB: NSFDF) is pleased to announce it has received conditional approval from the Toronto Stock Exchange (the "TSX") to offer a multi-tranche private placement (the "Private Placement") under which the subscribers will be able to purchase up to 11,900,770 common shares of the Company at a price of \$0.195 per share for total gross proceeds of approximately \$2,320,650. As of December 22, 2022, the amount of \$1,789,765 or 9,178,282 common shares have been subscribed for by participants in the Private Placement. The Company intends to complete the remaining \$530,885 of the Private Placement by January 27, 2023. Common shares issued as a result of the Private Placement will be subject to a hold period of four months plus a day from the date of issuance.

New Insider

Mr. Michael P. Mork and MCAPM, LP, (together "Mork Capital") have agreed to purchase 8,750,000 common shares or \$1,706,250 of the Private Placement, after which Mork Capital will own approximately 18.72% of the outstanding common shares of the Company. Two members of the Company's Board of Directors are participating in the Private Placement for a total of \$83,515.

Closing of First Tranche of Private Placement

As of December 22, 2022, the Company has received approximately \$223,915 in connection with the issuance of 1,148,282 common shares in the first tranche of the Private Placement. The remaining \$1,565,850 of the Mork Capital investment is currently held in escrow, and will be transferred to the Company upon clearance of the Mork Capital Personal Information Form by the TSX during January 2023.

The proceeds from the Private Placement will be used to support the general and administrative costs which include business development and marketing activities required to transform the existing pipeline of opportunities into firm contracts.

Commenting on the Private Placement, Eugene Woychyshyn, Vice President of Finance & CFO of NXT said, "Proceeds from this financing are critical in providing NXT with the capital necessary to finalize ongoing contract negotiations for the deployment of our SFD® technology. Mork Capital has been a significant shareholder of the Company for over 20 years and we appreciate their confidence in the potential of NXT. We look forward to continuing our partnership with them."

The securities described herein have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the "1933 Act"), or any state securities laws, and accordingly, may not be offered or sold within the United States except in compliance with the registration requirements of the 1933 Act and applicable state securities requirements or pursuant to exemptions therefrom. This news release shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the securities in the United States or in any other jurisdiction in which such offer, solicitation or sale would be unlawful.

About NXT Energy Solutions Inc.

NXT Energy Solutions Inc. is a Calgary-based technology company whose 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 hydrocarbon and geothermal exploration potential. The SFD[®] survey system enables our clients to focus their 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, information regarding: the details or and funds to be raised under the Private Placement, additional sources of required funding for the Company, the use of the funds raised under the Private Placement. 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 and the Rights Offering are described in its most recent Annual Information Form for the year ended December 31, 2021 and MD&A for the three and nine month periods ended September 30, 2022, which have 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.