



NXT ANNOUNCES EXECUTIVE MANAGEMENT TRANSITIONS

CALGARY, AB, January 20, 2023 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTCQB: NSFDF) announces that its Chief Executive Officer, Mr. George Liszicasz, has informed the Board of Directors that he will be taking a medical leave of absence in order to address personal and private health matters. In light of this development, the Board of Directors has formally empowered a committee of the Board to assume the CEO's duties until further notice. The Committee, which meets three times weekly with NXT management, consists of Lead Director Charles Selby and Directors Gerry Sheehan and Bruce G. Wilcox, who collectively possess senior operating and management experience in the Energy and Capital Markets Industries. The priorities of the Committee have been to formalize new contracts, including repeat business, for NXT's proven stress field technology. Management members included in this seamless process include Eugene Woychyshyn, Vice President of Finance and Chief Financial Officer; Rashid Tippu, Director of Geosciences for Africa, Asia, and Middle East; Enrique Hung, Director of Geosciences for the Americas; Mohammed Saqib, Head of Interpretation and Project Engineer; and Dr. Xiang Gui, Director of Research & Development.

NXT also announces that Mr. Frank Ingriselli has resigned from the Company's Board of Directors effective January 20, 2023, to assume increased responsibilities as Chief Executive Officer of Trio Petroleum Corp. NXT thanks Mr. Ingriselli for his insights and guidance particularly regarding business opportunities in the South-East Asian region and looks forward to future informal cooperation.

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.

Contact Information

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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, future informal cooperation. 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.