



NXT ANNOUNCES FULLY SUBSCRIBED US\$2.0 MILLION CONVERTIBLE DEBENTURE

CALGARY, AB, June 3, 2024 – NXT Energy Solutions Inc. (“NXT” or the “Company”) (TSX: SFD; OTCQB: NSFDF) is pleased to announce it has issued convertible debentures (the “Debentures”) to MCAPM LP for the principal amount of US\$2,000,000, being approximately CDN\$2,742,800, pursuant to the terms of a subscription agreement with NXT. The Toronto Stock Exchange (the “TSX”) has provided conditional approval of the private placement. The Debentures bear interest at 10.0% per annum, paid quarterly in arrears, and are due and payable two years after the issue date. The Debentures are convertible into common shares of NXT (the “Common Shares”) at a conversion price of US\$0.25 (CDN\$0.3428) per Common Share which provides MCAPM LP with the right to obtain up to 8,000,000 common shares of NXT (the “Common Shares”).

MCAPM LP will now have the right to obtain up to an additional 8,000,000 Common Shares upon the conversion of the Debentures. However, due to the current shareholdings of MCAPM LP in NXT, MCAPM LP cannot convert the full amount of the Debentures until approval by the majority of NXT’s shareholders, after excluding the votes of MCAPM LP and any of its affiliates and associates (together “MCAPM”) is obtained at NXT’s annual meeting of shareholders on July 15, 2024 (the “AGM”). MCAPM currently owns an aggregate of 14,921,233 Common Shares, representing 19.1% of the currently issued and outstanding Common Shares of NXT. In addition, MCAPM holds US\$1,375,000 (approximately CDN\$1,885,675) of previously issued debentures (the “November Debentures”) with a conversion price of US\$0.1808. With the acquisition of the Debentures, MCAPM will have the right to own, after conversion of the Debentures and the November Debentures, up to 30,526,321 Common Shares, representing approximately 28.1% of the issued and outstanding Common Shares (after giving effect to the conversion of the full amount of the Debentures and the November Debentures). MCAPM’s conversion rights therefore entitle it to own more than 20% of the issued and outstanding Common Shares and become a new control person under the rules of the TSX, which requires disinterested shareholder approval for the creation of a new control person.

Additionally, MCAPM is also considered an insider of NXT pursuant to the TSX rules such that a private placement of Common Shares greater than 10% of the issued and outstanding Common Shares to MCAPM during a given six-month period requires shareholder approval. Since the conversion of the Debentures and the November Debentures would exceed this threshold, approval by the majority of the shareholders of NXT (after excluding the votes of MCAPM) is required before MCAPM can fully exercise its conversion rights.

Accordingly, at the AGM, NXT will request shareholder approval for: (i) the creation of MCAPM as a new control person; and (ii) to allow MCAPM to exceed the insider participation limits imposed by the TSX.

The proceeds from the Debenture will be used to support the working capital needs of the upcoming SFD® survey in South East Asia, and other general and administrative costs which include business development and marketing activities required to transform the existing pipeline of SFD® opportunities into firm

contracts.

Commenting on the Debenture offering, Bruce G. Wilcox, CEO of NXT said, “Proceeds from this financing are critical in providing NXT with the capital necessary to complete its SFD® contract in South East Asia and enable the continuation of negotiations for the deployment of our SFD® technology in South East Asia, Türkiye, Nigeria and other regions.”

In accordance with MI 61-101 – *Protection of Minority Security Holders in Special Transactions* (“MI 61-101”), the Company’s issuance of the Debentures to MCAPM LP constitutes a “related party transaction”.

The Company has relied on exemptions from the formal valuation and minority shareholder approval requirements of MI 61–101 contained in sections 5.5(a) and 5.7(1)(a) of MI 61–101 in respect to the issuance of the Debentures to MCAPM LP as the fair market value of the Debentures is below 25% of the Company's market capitalization (in each case as determined in accordance with MI 61-101).

Management and Board of Director Updates

The board of directors of NXT (the “Board”) is pleased to announce that Mr. Bruce G. Wilcox, currently Interim Chief Executive Officer has been appointed Chief Executive Officer of the Company, and Mr. Charles Selby, currently Lead Director, has been appointed Chairman of the Board.

Additionally, the Board, subject to shareholder approval at the AGM, has nominated Mr. Peter Mork, representing MCAPM, and Mr. Eugene Woychyshyn, VP of Finance and Chief Financial Officer of NXT, to join the Board.

Please note that 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.

Contact Information

For investor and media inquiries please contact for NXT Energy Solutions Inc.:

Eugene Woychyshyn
Vice President of Finance & CFO
302, 3320 – 17th AVE SW
Calgary, AB, T3E 0B4
+1 403 206 0805
nxt_info@nxtenergy.com
www.nxtenergy.com

Michael Baker
Investor Relations
302, 3320 – 17th AVE SW
Calgary, AB, T3E 0B4
+1 403 264 7020
nxt_info@nxtenergy.com
www.nxtenergy.com

For MCAPM LP:

Michael P. Mork
General Partner, MCAPM LP
132 Mill Street, #204
Healdsburg California, 95448

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 “will”, “may”, “can”, “enable” 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 conversion of any issued debentures into Common Shares, the shareholdings of MCAPM LP following conversion of its issued debentures, the use of the funds raised through the issuance of the Debentures, the Company’s ability to transform existing SFD[®] opportunities into firm contracts, the effect of increased capital on NXT’s ability to deploy its SFD[®] technology in South East Asia, Türkiye, Nigeria and other regions, the Company seeking majority of the minority approval regarding issuance of the Debentures at the AGM, the possibility of the securities described not being offered or sold in the United States, and the utility of SFD[®] technology for the Company’s clients. 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 annual information form for the year ended December 31, 2023 and MD&A for the three-month period ended March 31, 2024, which have been filed electronically by means of the System for Electronic Document Analysis and Retrieval (“SEDAR+”) located at www.sedarplus.ca. 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.