



## **NXT ANNOUNCES US\$0.5 MILLION CONVERTIBLE DEBENTURE**

CALGARY, AB, November 1, 2024 – NXT Energy Solutions Inc. (“NXT” or the “Company”) (TSX: SFD; OTCQB: NSFDF) is pleased to announce it has received the first tranche of a planned US\$900,000 (approximately CDN\$1,252,080) convertible debenture (the “Debentures”) from Ataraxia Capital (“Ataraxia”) for the principal amount of US\$500,000, (approximately CDN\$695,600), pursuant to the terms of the subscription agreement signed between Ataraxia and NXT in 2023. The Toronto Stock Exchange (the “TSX”) has provided conditional approval of the final phase of this 2023 agreement.

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\$0.24 (CDN\$0.324) per Common Share which provides Ataraxia with the right to obtain up to 2,083,333 Common Shares of NXT. The Debentures may also be converted into voting preferred shares of NXT (the “Preferred Shares”) with an annual dividend rate of 10% paid quarterly in arrears. The Preferred Shares are not transferable, but may be converted on a one-to-one basis into Common Shares. The Debentures are payable on demand and are secured by a general security agreement, subordinate to the Business Development Bank of Canada’s Highly Affected Sectors Credit Availability Program loan.

Ataraxia currently holds US\$1,400,000 (approximately CDN\$1,947,680) of previously issued debentures under the 2023 subscription agreement (the “2023 Debentures”) with a conversion price of US\$0.143 per Common Share. Once Ataraxia has completed the tranches of its US\$900,000 investment, Ataraxia will own an aggregate of US\$2,300,000 Debentures and 2023 Debentures (collectively, the “Ataraxia Debentures”). With the acquisition of the Debentures, Ataraxia will have the right to own, after conversion of the Ataraxia Debentures, up to 13,540,209 Common Shares, representing approximately 14.7% of the issued and outstanding Common Shares (after giving effect to the conversion of the full amount of the Ataraxia Debentures).

The proceeds from the Debentures will be used to support the working capital needs of the upcoming SFD® surveys in Africa and Southeast 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, “We are very pleased and grateful that our strategic alliance partner, Ataraxia Capital, has increased its ownership position in fulfillment of its commitment from 2023. This provides NXT with additional capital to support the successful execution of our upcoming surveys. As previously disclosed, NXT was recently awarded an SFD® survey contract in Africa by Synergy Exploration and Production Technologies Limited., an affiliate of Ataraxia Capital. Data acquisition operations for this contract are expected to commence in the fourth quarter of 2024, and NXT’s interpretations and recommendations are expected to be delivered during the first quarter of 2025.”

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 Ataraxia 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 Ataraxia 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).

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

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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 “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 and outstanding Ataraxia Debentures into Common Shares or Preferred Shares, as applicable, the shareholdings of Ataraxia following conversion of its issued and outstanding Ataraxia Debentures, the use of the proceeds raised through the issuance of the Debentures, the Company’s ability to transform existing SFD<sup>®</sup> opportunities into firm contracts, the effect of increased capital on NXT’s ability to deploy its SFD<sup>®</sup> technology in Southeast Asia, Africa, and other regions, and the expected timing of commencement of NXT’s data acquisition operations for the SFD<sup>®</sup> survey contract and for the delivery of NXT’s interpretations and recommendations. 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 and six months ended June 30, 2024, which have been filed electronically by means of the System for Electronic Document Analysis and Retrieval (“SEDAR+”) located at [www.sedarplus.ca](http://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.