

NXT ENERGY SOLUTIONS ANNOUNCES THIRD QUARTER 2023 RESULTS

CALGARY, AB, November 14, 2023 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTCQB: NSFDF) today announced the Company's financial and operating results for the three and nine months ended September 30, 2023. All dollar amounts herein are in Canadian Dollars unless otherwise identified.

Financial and Operating Highlights

Key financial and operational highlights are summarized below:

- on September 5, 2023. NXT announced that it has executed a contract to provide an SFD[®] survey to an independent oil and gas exploration company in Turkiye;
- the second tranche of the convertible debenture with strategic partner Ataraxia Capital contributed \$0.27 million of cash;
- cash at September 30, 2023 was \$0.37 million;
- net working capital was (\$3.47) million at September 30, 2023;
- the Company recorded SFD[®]-related revenues of \$nil;
- a net loss of \$1.70 million was recorded for Q3-23, including stock-based compensation expense ("SBCE") and amortization expense of \$0.48 million;
- a net loss of \$5.03 million was recorded for YTD 2023, including SBCE and amortization expense of \$1.50 million;
- net loss per common share for Q3-23 was \$0.02 basic and \$0.02 diluted;
- net loss per common share for YTD 2023 was \$0.07 basic and \$0.07 diluted;
- cash flow used in operating activities was \$0.95 million during Q3-23 and \$3.36 million YTD 2023; and
- general and administrative ("G&A") expenses decreased by \$0.12 million (13%) in Q3-23 as compared to Q3-22 and G&A expenses decreased by \$0.28 million (10%) in YTD 2023 as compared to YTD 2022.

Key financial and operational highlights occurring subsequent to Q3-23 are summarized below:

- mobilization of the SFD[®] survey in Turkiye is expected to commence in November, 2023; and
- US\$1,000,000 (CDN\$1,379,000) of a convertible debenture was received.

On September 5, 2023 NXT announced that it has executed a contract to provide an SFD[®] survey to an independent oil and gas exploration company in Turkiye, which is strategically located at the junction of Eastern Europe, Central Asia and the Middle East. Operation planning for this contract has commenced and NXT's interpretations and recommendations are expected to be delivered during the fourth quarter of 2023.

To support this SFD[®] Survey and other working capital needs, on November 9, 2023 NXT announced it is offering a multi-tranche convertible debenture (the "Debenture") under which the subscribers will be able to purchase a principal amount of up to US\$2,500,000 (approximately CAD\$3,447,500.) The Debentures

bear interest at 10.0% per annum, paid quarterly in arears, and are due and payable two years after issuance of the Debenture. The Debentures are convertible into common shares of NXT at a conversion price of US\$0.1808 (CAD\$0.25) per common share. US\$1,000,000 (approximately CAD\$1,379,000) of the Debenture has already been subscribed by MCAPM, LP and Michael P. Mork.

The Company intends to complete the remaining US\$1,500,000 of the Debenture offering on or before December 15, 2023.

Commenting on the Debenture offering, Bruce G. Wilcox, Interim CEO of NXT said, "NXT continues to make progress on its business development plans. We have the capital necessary to complete the SFD[®] contract in Turkiye and continue with other negotiations for the deployment of our SFD[®] technology in other regions. MCAPM LP and Michael P. Mork have been significant shareholders of the Company for over 20 years and we appreciate their confidence in the potential of NXT."

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.

Summary highlights of NXT's 2023 third quarter financial statements (with comparative figures to 2022) are noted below. All selected and referenced financial information noted below should be read in conjunction with the Company's third quarter 2023 unaudited condensed consolidated interim financial statements, the related Management's Discussion and Analysis ("MD&A").

'All in Canadian \$)	02.22	02.22		
2	Q3-23	Q3-22	2023 YTD	2022 YTC
Operating results:				
SFD [®] -related revenues	\$ -	\$-	\$-	\$
SFD [®] -related costs, net	348,169	230,518	968,199	974,292
General & administrative expenses	841,200	963,433	2,644,261	2,922,660
Amortization and other expenses	514,587	454,037	1,412,952	1,366,575
Net loss	(1,703,956)	(1,647,988)	(5,025,412)	(5,263,527
Loss per common share, basic and diluted:	\$(0.02)	\$(0.03)	\$(0.07)	\$(0.08)
Common shares outstanding as at end of the period	77,958,928	65,585,902	77,958,928	65,585,902
Weighted average of common shares, basic and diluted:	77,735,682	65,386,959	77,283,442	65,333,95 [,]
Cash provided by (used in):				
Operating activities	\$(953 <i>,</i> 051)	\$(533,787)	\$(3,363,362)	\$(2,229,816
Financing activities	253,114	(25,694)	3,469,891	(24,573
Investing activities	-	500,000	-	550,000
Effect of foreign rate changes on cash	18,921	16,481	(558)	20,376
Net cash inflow (outflow)	(681,016)	(43,000)	105,971	(1,684,013
Cash and cash equivalents, beginning of the period	1,050,424	616,842	263,437	2,257,855
Cash and cash equivalents, end of the period	369,408	573,842	369,408	573,842
Short-term investments	-	-	-	
Total cash and short-term investments, end of the period	369,408	573,842	369,408	573,842
Net working capital balance	\$(3,468,900)	\$(1,060,858)	\$(3,468,900)	\$(1,060,858

NXT's 2023 third quarter financial and operating results have been filed in Canada on SEDAR at www.sedarplus.ca, and will soon be available in the USA on EDGAR at www.sec.gov/edgar, as well as on NXT's website at www.nxtenergy.com.

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, information regarding: timing of the delivery of interpretation and recommendations of the Turkish SFD® survey, business negotiations, opportunities and discussions, including the timing thereof, business strategies, and timing of the receipt and amount of the final tranche of the Debenture. 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. Additional risk factors facing the Company are described in its most recent Annual Information Form for the year ended December 31, 2022 and MD&A for the three and nine month periods ended September 30, 2023, 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.

Non-GAAP Measures

This news release contains disclosure respecting non-GAAP performance measures including net working capital which does not have a standardized meaning prescribed by US GAAP and may not be comparable to similar measures presented by other entities. This measure is included to enhance the overall understanding of NXT's ability to assess liquidity at a point in time. Readers are urged to review the section entitled "Non-GAAP Measures" in NXT's MD&A for the three and nine month periods ended September 30, 2023 which is available under NXT's profile on SEDAR at www.sedarplus.ca, for a further discussion of such non-GAAP measures. The financial information accompanying this news release was prepared in accordance with US GAAP unless otherwise noted. Management's discussion and analysis of financial results and the unaudited condensed consolidated interim financial statements and notes for the three and nine months ended September 30, 2023, are available through the Internet in the Investor Relations section of www.nxtenergy.com or under NXT's SEDAR profile at www.sedarplus.ca.