

NXT ENERGY SOLUTIONS ANNOUNCES SECOND QUARTER 2023 RESULTS

CALGARY, AB, August 11, 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 six months ended June 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 May 24 the Company entered into a ten year strategic alliance in Africa with Synergy E&P Technologies Limited ("Synergy") which grants Synergy an exclusive license to use, distribute, sublicense, market and sell NXT's SFD[®] solutions in Africa;
- At the same time the Company entered into a US\$2.3 million convertible debenture financing with Ataraxia Capital, an affiliate of Synergy. On May 31, 2023 the Company received its first tranche of US\$1,200,000 from Ataraxia. The Company received an additional US\$200,000 tranche on July 10, 2023 for a total of US\$1,400,000 million to date. The remaining commitment of US\$900,000 is expected to be received during the third quarter of 2023;
- in June, Mr. Bruce G. Wilcox was appointed the Interim Chief Executive Officer of the Company;
- cash at June 30, 2023 was \$1.05 million;
- net working capital was (\$2.35) million at June 30, 2023;
- the Company recorded SFD[®]-related revenues of \$nil;
- a net loss of \$1.71 million was recorded for Q2-23, including stock-based compensation expense ("SBCE") and amortization expense of \$0.51 million;
- a net loss of \$3.32 million was recorded for YTD 2023, including SBCE and amortization expense of \$1.02 million;
- net loss per common share for Q2-23 was \$0.02 basic and diluted, and for YTD 2023 was \$0.04 basic and diluted;
- cash flow used in operating activities was \$1.01 million during Q2-23 and \$2.41 million YTD 2023; and
- general and administrative ("G&A") expenses decreased by \$0.10 million (10%) in Q2-23 as compared to Q2-22 and G&A expenses decreased by \$0.16 million (8%) in YTD 2023 as compared to YTD 2022.

Summary highlights of NXT's 2023 second 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 second quarter 2023 unaudited condensed consolidated interim financial statements, the related Management's Discussion and Analysis ("MD&A").

All in Canadian \$)				
	Q2-23	Q2-22	2023 YTD	2022 YTD
Operating results:				
SFD [®] -related revenues	\$-	\$-	\$-	\$-
SFD [®] -related costs, net	318,396	306,492	620,030	743,774
General & administrative expenses	941,707	1,046,677	1,803,061	1,959,227
Amortization and other expenses	446,706	421,502	898,365	912,538
Net loss	(1,706,809)	(1,774,671)	(3,321,456)	(3,615,539)
Loss per common share, basic and diluted:	\$(0.02)	\$(0.03)	\$(0.04)	\$(0.06)
Common shares outstanding as at end of the period	77,678,277	65,341,775	77,678,277	65,341,775
Weighted average of common shares, basic and diluted:	77,648,279	65,330,821	77,053,575	65,307,012
Cash provided by (used in):				
Operating activities	\$(1,010,292)	\$(782 <i>,</i> 888)	\$(2,410,311)	\$(1,696,029)
Financing activities	1,612,644	12,965	3,216,777	1,121
Investing activities	-	200,272	-	50,000
Effect of foreign rate changes on cash	(19,467)	17,772	(19,479)	3,895
Net cash inflow (outflow)	582,885	(551,879)	786,987	(1,641,013)
Cash and cash equivalents, beginning of the period	467,539	1,168,721	263,467	2,257,855
Cash and cash equivalents, end of the period	1,050,424	616,842	1,050,424	616,842
Short-term investments	-	500,000	-	500,000
Total cash and short-term investments, end of the period	1,050,424	1,116,842	1,050,424	1,116,842
Net working capital balance	(2,349,194)	49,230	(2,349,194)	49,230

NXT's 2023 second 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.

(All in Canadian \$)

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:

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

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: Business negotiations, opportunities and discussions, including the timing thereof, business strategies and timing of the receipt of the final tranche of the convertible 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 six month periods ended June 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 six month periods ended June 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 six months ended June 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.