



NXT ENERGY SOLUTIONS ANNOUNCES FIRST QUARTER 2022 RESULTS

CALGARY, AB, May 12, 2022 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTC QB: NSFDF) today announced the Company's financial and operating results for the quarter ended March 31, 2022. All dollar amounts herein are in Canadian Dollars unless otherwise identified.

Financial and Operating Highlights

- cash and short-term investments at March 31, 2022 were \$1.87 million;
- accounts receivable payments of approximately \$246,922 was received in Q1-22, \$154,326 in April 2022, and \$390,000 is anticipated to be received in May 2022;
- the Company recorded SFD® related revenues of \$nil;
- a net loss of \$1.84 million was recorded for Q1-22, including stock based compensation expense ("SBCE") and amortization expense of \$0.50 million;
- net loss per common share for the quarter was \$0.03 basic and diluted;
- cash flow used in operating activities was \$0.90 million during the quarter;
- Net working capital was \$1.35 million at March 31, 2022;
- general and administrative expenses increased by \$0.01 million (1%) as compared to the first quarter of 2021;
- the Company extended its aircraft lease until 2024; and
- NXT patent application in Brazil has been officially granted, bringing the total number of countries in which NXT holds patents to 46.

Message to Shareholders

George Liszicasz, President and CEO of NXT, commented, "In 2021, NXT received advisory services and funding from the National Research Council of Canada's Industrial Research Assistance Program ("NRC IRAP") which was utilized to support the research and development of the SFD® technology for geothermal applications. The Company successfully completed Phase I of this SFD-GT sensor development program in the fourth quarter of 2021, and is currently preparing a Phase II submission for NRC IRAP's consideration. NXT is pursuing SFD-GT survey opportunities in Canada and abroad, and is active in discussions with multiple geothermal companies regarding its services.

On the hydrocarbon business development side, as commodity prices remain strong and global economic activity continues to accelerate, we are witnessing an increased level of business development and exploration activity with our customers. Today, we see clear signs of many suspended exploration programs being reactivated with a strong commitment by the industry to lower its environmental footprint. NXT's patented and non-intrusive SFD® airborne technology not only increases the drill success rates of its customers, but drastically reduces the negative environmental impact of traditional large-scale

surface surveys.

SFD® survey opportunities continue to progress well in this environment not only within our core areas of focus in Africa, Asia, and in South America, but elsewhere. This gives me strong confidence that our collective efforts will soon materialize into future success, both short-term and long-term. The Company remains focused on contract execution in order to deliver value to its shareholders. On behalf of our Board of Directors and the entire team at NXT, I want to thank all of our shareholders for their continued support.”

Summary highlights of NXT's 2022 first quarter financial statements (with comparative figures to 2021) are noted below. All selected and referenced financial information noted below should be read in conjunction with the Company's first quarter 2022 unaudited condensed consolidated interim financial statements and the related Management's Discussion and Analysis ("MD&A").

(All in Canadian \$)

| | Q1-22 | Q1-21 |
|--|-------------|-------------|
| Operating results: | | |
| SFD® related revenue | \$ - | \$ - |
| SFD® related costs, net | 437,282 | 265,615 |
| General & administrative expenses | 912,550 | 900,309 |
| Amortization and other expenses, net | 491,036 | 481,368 |
| | (1,840,868) | (1,647,292) |
| Net (loss) income and comprehensive loss) income | (1,840,868) | (1,647,292) |
| Income (loss) per common share – basic | \$(0.03) | \$(0.03) |
| Income (loss) per common share – diluted | \$(0.03) | \$(0.03) |
| Number of common shares outstanding as at end of the period | 65,301,972 | 64,494,356 |
| Weighted average number of common shares outstanding for the period: | | |
| Basic | 65,282,940 | 64,472,222 |
| Diluted | 65,282,940 | 64,472,222 |
| Cash provided by (used in): | | |
| Operating activities | \$(913,141) | \$(847,129) |
| Financing activities | (11,844) | (16,556) |
| Investing activities | (150,272) | 191,261 |
| Effect of foreign rate changes on cash | (13,877) | (14,499) |
| Net cash inflow (outflow) | (1,089,134) | (686,923) |
| Cash and cash equivalents, beginning of the period | 2,257,855 | 2,690,146 |
| Cash and cash equivalents, end of the period | 1,168,721 | 2,003,223 |
| Cash and cash equivalents | 1,168,721 | 2,003,223 |
| Short-term investments | 700,272 | 150,000 |
| Total cash and short-term investments | 1,868,993 | 2,153,223 |
| Net working capital balance | 1,346,144 | 1,514,112 |

NXT's 2022 first quarter financial and operating results have been filed in Canada on SEDAR at www.sedar.com, 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.

Details of the conference call are as follows:

| | |
|-----------------------------------|--|
| Date: | Monday, May 16, 2022 |
| Time: | 4:30 p.m. Eastern Time (2:30 p.m. Mountain Time) |
| North American Participants Call: | 1-(800)-806-5484 |
| Participant Pass Code | 8249637# |

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:

Eugene Woychyshyn
Vice President of Finance & CFO
+1 403 206 0805
nxt_info@nxtenergy.com
www.nxtenergy.com

George Liszicasz
President & CEO
+1 403 206 0800
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, discussions, including the timing thereof and business strategies. 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, including those related to the novel coronavirus (2019-nCoV/COVID-19), and the potentially negative effects thereof on the Company's workforce, its supply chain or demand for its products. Additional risk factors facing the Company are described in its most recent Annual Information Form for the year ended December 31, 2021, which has 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.

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 months ended March 31, 2022 which is available under NXT's profile on SEDAR at www.sedar.com, 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. The MD&A and the unaudited condensed consolidated financial statements for the three months ended March 31, 2022, are available through the Internet in the Investor Relations section of www.nxtenergy.com or under NXT's SEDAR profile at www.sedar.com.