



NXT ENERGY SOLUTIONS INC.

Management's Discussion and Analysis

For the three months ended

March 31, 2022

Management's Discussion and Analysis

This discussion and analysis ("MD&A") was prepared by management of NXT Energy Solutions Inc. ("NXT", "we", "us", "our" or the "Company") based on information available as at May 12, 2022 unless otherwise stated, has been approved by the Board of Directors of the Company (the "Board"), and should be reviewed in conjunction with the unaudited condensed consolidated interim financial statements and related notes for the period ended March 31, 2022 (the "unaudited condensed consolidated interim financial statements"). This MD&A covers the unaudited three month period ended March 31, 2022, with comparative amounts for the unaudited three months period ended March 31, 2021.

Our functional and reporting currency is the Canadian dollar. All references to "dollars", "\$" and "CDN\$" in this MD&A are to Canadian dollars unless specific reference is made to United States dollars ("US\$").

NXT® and SFD® are registered trademarks of NXT in Canada and the United States.

Advisories

Forward-looking Information

Certain statements contained in this MD&A constitute "forward-looking information" within the meaning of applicable securities laws. These statements typically contain words such as "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "predict", "will", "continue" and similar words and phrases suggesting future outcomes or an outlook. Forward-looking statements in this document includes, but is not limited to:

- payment of the Consideration (as defined below), and the satisfaction of the conditions thereto (including with respect to cash balances, receipt of funds, and the execution and completion of contracts);
- the development, commercialization and protection of the SFD® technology for geothermal resource exploration;
- the extent to which expanding the Company's scope of business to include exploring for both hydrocarbon and geothermal resources is anticipated to result in an expansion of its scope of revenue sources;
- the Company's pursuit of opportunities to secure new revenue contracts;
- estimates related to our future financial position and liquidity including certain contractual obligations; and
- general business strategies and objectives.

Such forward-looking information is based on a number of assumptions which may prove to be incorrect. Assumptions have been made with respect to the following matters, in addition to any other assumptions identified in this document:

- our ability to develop and market our SFD® technology and services to current and new customers;
- our ability to source personnel and equipment in a timely manner and at an acceptable cost;
- our ability to obtain all permits and approvals required;

- our ability to obtain financing on acceptable terms;
- our ability to obtain insurance to mitigate the risk of default on client billings;
- foreign currency exchange and interest rates; and
- general business, economic and market conditions (including global commodity prices).

Although NXT believes that the expectations reflected in such forward-looking information are reasonable, undue reliance should not be placed on them as NXT can give no assurance that such expectations will prove to be correct. Forward-looking information is based on expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by NXT and are described in the forward-looking information. Material risks and uncertainties include, but are not limited to:

- the ability of management to execute its business plan, including their ability to secure new revenue contracts;
- health, safety and the environment (including risks related to the COVID-19 pandemic);
- the emergence of alternative competitive technologies;
- our ability to develop and commercialize the geothermal technology;
- our ability to service existing debt;
- our ability to protect and maintain our intellectual property ("IP") and rights to our SFD® technology;
- our reliance on a limited number of key personnel;
- our reliance on a limited number of aircraft;
- our reliance on a limited number of clients;
- counterparty credit risk;
- foreign currency and interest rate fluctuations;
- the likelihood that the Company's ICFR (as defined below) will prevent or detect material misstatements in our unaudited condensed consolidated interim financial statements;
- changes in, or in the interpretation of, laws, regulations or policies; and
- general business, economic and market conditions (including global commodity prices).

For more information relating to risks, see the section titled "*Discussion of Operations – Risk and Uncertainties*" in this MD&A and the section titled "*Risk Factors*" in NXT's most recently filed Annual Information Form. Except as required by applicable securities law, NXT undertakes no obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements.

Financial outlooks are provided for the purpose of understanding the Company's accounting practices and liquidity position, and the information may not be appropriate for other purposes.

Non-GAAP Measures

NXT's accompanying unaudited condensed consolidated interim financial statements were prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). This MD&A includes references to net working capital which does not have a standardized meaning prescribed by US GAAP and may not be comparable to similar measures being presented by

other entities. Net working capital is the net result of the difference between current assets and current liabilities, and can be used by investors and management to assess liquidity at a particular point in time. See "*Liquidity and Capital Resources – Net Working Capital*" for further information.

Description of the Business

NXT Energy Solutions Inc. is a Calgary-based technology company whose proprietary and patented Stress Field Detection ("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 NXT's 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. NXT provides its clients with an effective and reliable method to reduce time, costs and risks related to exploration.

Financial and Operational Highlights

Key financial and operational highlights for Q1-22 are summarized below:

- the Company extended its aircraft lease until April 2024;
- NXT patent application in Brazil has been officially allowed, bringing the total number of countries in which NXT holds patents to 46;
- cash and short-term investments at March 31, 2022 were \$1.87 million;
- net working capital was \$1.35 million at March 31, 2022;
- the Company recorded SFD® related revenues of \$nil and received US\$0.20 (CDN\$0.25) of payments on outstanding accounts receivable in February 2022;
- 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 Q1-22 was \$0.03 basic and \$0.03 diluted;
- cash flow used in operating activities was \$0.91 million during Q1-22;
- general and administrative ("G&A") expenses increased by \$0.01 million (1%) as compared to Q1-21; and
- the Company surrendered 826 square feet of office space in March 2022.

Key financial and operational highlights occurring subsequent to Q1-22 are summarized below:

- the Company received US\$0.13 million (CDN\$0.16) of payments on outstanding accounts receivable during April 2022.

Discussion of Operations

COVID-19 Pandemic

As of the date of the unaudited condensed consolidated financial interim statements, the COVID-19 pandemic continues to be a risk on the operations of the Company. The Company has made provisions so employees can work safely in the office or from home, followed all Alberta Health Services and Health Canada recommendations, and implemented hygiene and physical distancing policies. Demand for our services, as well as our ability to provide services and to generate revenues may become adversely impacted the longer the COVID-19 pandemic continues. For example, if restrictions on international travel continue and/or an outbreak of the virus among our or our customers' personnel occurred, it may result in NXT being unable to perform surveys. Further, business development may be impacted, as teleconferences or on-line video conferencing may be an inferior method of business development than in-person meetings and technical presentations.

The Company's approach to managing the impacts of the COVID-19 pandemic is dynamic and the ultimate duration and magnitude of the impact on the economy and the financial effect to the Company is not known at this time. Estimates and judgments made by management in the preparation of the condensed consolidated interim financial statements are subject to a higher degree of measurement uncertainty during this volatile period.

Acquisition of the Geothermal Right

The Company acquired the SFD[®] technology rights for geothermal resources ("Geothermal Right") from Mr. George Liszicasz, President and Chief Executive Officer of NXT ("CEO") on April 18, 2021. The consideration deliverable by the Company in connection with the acquisition of the Geothermal Right is set forth below (the "Consideration"):

1. US\$40,000 (CDN\$50,310) signature payment, which became due immediately and was paid on April 22, 2021;
2. 300,000 common shares, which were issued in December 2021;
3. CDN\$15,000 signature milestone payment paid in August 2021;
4. US\$200,000 milestone payment which will become due in the event that the Company's cash balance exceeds CDN\$5,000,000 due to receipt of specifically defined funds from operations; and
5. US\$250,000 milestone payment which will become due in the event that the Company executes and completes and receives full payment for an SFD[®] contract valued at US\$10,000,000 or greater, provided such contract is entered into and completed and payment of at least US\$5,000,000 is received by April 18, 2023.

As of March 31, 2022, the Company has recognized \$275,610 for the acquisition Geothermal Right which is the combination of the US\$40,000 (CDN\$50,310) and CDN\$15,000 signature payments, the value of the 300,000 common shares of \$207,300 and other costs of \$3,000. The cost of the remaining two milestones will be recognized when it is deemed probable that these two milestones will be achieved by a special

committee of the Board, comprised entirely of independent directors. The Board delegated authority to the special committee to determine when the milestones have been achieved.

Geothermal Right Development Update

Progress continues with respect to the development of the SFD-GT geothermal sensor family. The objective of this project was to test, identify and analyze the desired elements of the SFD® geothermal sensor response over known geothermal areas with the ultimate goal of providing a green upstream geophysical service for advancing renewable power initiatives in Canada and abroad. The agreed project work was completed in November 2021 with total funding of \$50,000 from the National Research Council of Canada Industrial Research Assistance Program ("NRC IRAP"). The Company is currently working with NRC IRAP to develop a funding and research plan for the next phase to support the research and development of the SFD® technology for geothermal applications.

Patents

In Q1-22, NXT announced its patent application in Brazil has been allowed. As of the date of this MD&A, NXT has been granted SFD® patents in Brazil (February 2022) India (July 2021), Russia (January 2017), Japan (July 2017), Canada (August 2017), Mexico (September 2017), the United States (two patents were granted in November 2017 and September 2018, respectively), China (April 2018), and Europe (January 2020). In total, NXT has obtained SFD® patents or received patent allowances in 46 countries. These patents protect our proprietary SFD® technology and serve as independent third-party recognition of our technological invention in terms of practical applicability, conceptual novelty, and knowledge advancement.

Summary of Operating Results (Q1-21 Adjusted)

Please see the section "Changes in Accounting Policies, Leases".

	Q1-22	Q1-21
SFD® related revenue	\$ -	\$ -
Expenses:		
SFD® related costs, net	437,282	265,615
General and administrative expenses	912,550	900,309
Amortization	442,437	441,824
	1,792,269	1,607,748
Other Expenses (income):		
Interest (income) expense, net	8,188	5,506
Foreign exchange loss (gain)	20,265	24,428
Intellectual property and other	20,146	9,610
	48,599	39,544
Loss before income taxes	(1,840,868)	(1,647,292)
Income tax expense	-	-
Net loss and comprehensive loss	(1,840,868)	(1,647,292)
Net loss per share – basic	\$ (0.03)	\$ (0.03)
Net loss per share – diluted	\$ (0.03)	\$ (0.03)

Quarterly operating results. Net loss for Q1-22 compared to Q1-21 increased by \$193,576, or \$0.00 per share-basic. SFD® related costs, net, were \$171,667 higher due to the timing of routine maintenance costs and adding 300 available flight hours to the Company's aircraft. G&A expenses increased by \$12,241, or 1%, compared to Q1-21, due primarily to an increase in SBCE, which was offset by lower vacation, consulting and professional fee expenses. Interest (income) expense, net changed by \$2,682 in Q1-22 versus Q1-21 due to interest expense for the Business Development Bank of Canada's ("BDC") Highly Affected Sectors Credit Availability Program (the "HASCAP Loan") in Q1-22. With respect to foreign exchange, the CDN\$ strengthened to the US\$ in both quarters (2.0% in 2022 and 0.9% in 2021), the Company held less net assets in US\$ as at March 31, 2022 versus March 31, 2021 resulting in a similar foreign exchange loss. IP and other expenses increased \$10,536. Q1-22 related mostly to costs associated with maintaining certain SFD® patents.

SFD® Related Costs, Net (Q1-21 Adjusted)

Please see the section "Changes in Accounting Policies, Leases".

SFD® Related Costs	Q1-22	Q1-21	Net change
Aircraft lease costs	\$ 121,471	\$ 105,457	\$ 16,014
Aircraft operations	315,211	140,450	174,761
Survey projects	600	19,708	(19,108)
Total SFD® related costs, net	437,282	265,615	171,667

SFD® related costs include aircraft charter costs (net of charter hire reimbursements), lease expenses and aircraft operation and maintenance costs. In Q1-22, SFD® related costs were higher compared to Q1-21 due to the timing of routine maintenance costs and preparing the aircraft for up to 300 hours of flight hours to conduct SFD® surveys.

The aircraft is available for charter to third parties through our aircraft manager when it is not being used by NXT. Any charter hire reimbursements received are used to offset aircraft costs.

The Company extended the term of its Aircraft Leasing Agreement effective in the second quarter of 2022 for a period of 24 months with payments of approximately US\$22,500 (CDN\$28,675) per month, or US\$270,000 (CDN\$344,099) per year. The incremental borrowing rate is 11.2%.

Should NXT want to repurchase the aircraft at the end of the extended term, the purchase price will be US\$1.21 million.

General and Administrative Expenses

G&A Expenses	Q1-22	Q1-21	Net change	%
Salaries, benefits and consulting charges	\$ 458,102	\$ 473,455	\$ (15,353)	(3)
Board and professional fees, public company costs	181,954	193,004	(11,050)	(6)
Premises and administrative overhead	213,029	202,900	10,129	5
Business development	2,949	4,454	(1,505)	(34)
Stock-based compensation	56,516	26,496	30,020	113
Total G&A Expenses	912,550	900,309	12,241	1

G&A expenses increased \$12,241, or 1%, in Q1-22 compared to Q1-21 for the following reasons:

- salaries, benefits and consulting charges decreased \$15,353, or 3%, due to lower vacation expense and lower consultant fees in Q1-22;
- Board and professional fees and public company costs decreased \$11,050, or 6%, due primarily to decreased professional fees;
- premises and administrative overhead costs increased \$10,129, or 5%, as building operating increased costs, mostly due to carbon taxes;
- business development costs were minimal in both Q1-22 and Q1-21 as business development travel was reduced in the quarters; and
- SBCE were higher in Q1-22 vs Q1-21 by \$30,020, or 113% due to higher stock option, Restricted Share Unit Plan ("RSU Plan") and offset by the Employee Share Purchase Plan ("ESP Plan") expenses decreasing. Please see the next section "*Discussion of Operations – General and Administrative Expenses – Stock-based Compensation Expenses*" for further information on the SBCE.

Stock-based Compensation Expenses

Stock-based Compensation Expenses	Q1-22	Q1-21	Net change	% change
Stock Option Expense	\$ 7,500	\$ 3,750	\$ 3,750	100
Deferred Share Units	-	-	-	-
Restricted Stock Units	36,285	(49)	36,334	>100
ESP Plan	12,731	22,795	(10,064)	(44)
Total SBCE	56,516	26,496	30,020	113

SBCE varies in any given quarter or year as it is a function of several factors including the number of units of each type of stock-based compensation plan issued in the period and the amortization term (based on the term of the contract and/or number of years for full vesting of the units, which is normally three years) of the resultant expense. Also, SBCE is a function of periodic changes in the inputs used in the Black-Scholes option valuation model, such as volatility in NXT's trailing share price and for cash-settled stock-based compensation awards variability will occur based on changes to observable prices.

Stock options granted generally expire, if unexercised, five years from the date granted and entitlement to exercise them generally vests at a rate of one-third at the end of each of the first three years following the date of grant.

The deferred share unit ("DSUs") plan (the "DSU Plan") is a long-term incentive plan that permits the grant of DSUs to qualified directors. DSUs granted under the DSU Plan are to be settled at the retirement, resignation or death of the Board member holding the DSUs.

Restricted Share Units ("RSUs") entitle the holder to receive, at the option of the Company, either the underlying number of shares of the Company's common shares upon vesting of such units or a cash payment equal to the value of the underlying shares. The RSUs vest at a rate of one-third at the end of each of the first three years following the date of grant. In Q3-21, the Company settled the Q3-21 RSU vesting with common shares and cash, and intends to continue to settle the RSUs in common shares and cash.

The ESP Plan allows employees and other individuals determined by the Board to be eligible to contribute a minimum of 1% and a maximum of 10% of their earnings to the plan for the purchase of common shares in the capital of the Company, of which the Company will make an equal contribution. Common shares contributed by the Company may be issued from treasury or acquired through the facilities of the Toronto Stock Exchange. During 2021 and 2022 the Company has elected to issue Common Shares from treasury.

SBCE in Q1-22 was higher compared to Q1-21 by \$30,020 or 113%. The main driver of the higher expense was a forfeiture in the RSU Plan in Q1-21 which reduced the RSU expense and one director electing to take all of their 2022 director fees in options versus only one half of the director fees in Q1-21. This increase was offset partially by there being no ESP Plan bonus accrual in Q1-22 as all participants in the plan have been members of the plan for more than one year. No directors elected to participate in the DSU Plan in 2022 and 2021.

Amortization

Amortization	Q1-22	Q1-21	Net change	%
Property and equipment	\$ 17,809	\$ 20,641	\$ (2,832)	(14)
Intellectual property	424,628	421,183	3,445	1
Total Amortization Expenses	442,437	441,824	613	-

Property and equipment and related amortization expense. Property and equipment amortization was lower in Q1-22 compared to Q1-21 due to additional assets becoming fully amortized during the period and the Company not acquiring new assets in the periods. Amortization also decreases each year as the Company uses the declining balance method of depreciation, thereby having the effect of lowering amortization each year on existing assets.

Intellectual property and related amortization expense. NXT acquired specific rights to utilize the proprietary SFD[®] technology in global hydrocarbon exploration applications from the inventor of the SFD[®] technology, NXT's Chairman, President and CEO, on August 31, 2015. The value attributed to the acquired IP assets was \$25.3 million. The IP assets are being amortized on a straight-line basis over a 15-year period (future amortization expense of \$1,685,000 per year) and are also being subject to ongoing assessment of potential indicators of impairment of the recorded net book value. No impairments were recognized in Q1-22 or Q1-21.

As discussed in the section "*Discussion of Operations – Acquisition of the Geothermal Right*", the Company acquired the SFD[®] technology for the Geothermal Right from NXT's Chairman, President and CEO on April 18, 2021. The Geothermal Right is being amortized on a straight line basis over its estimated useful life of 20 years. The annual amortization expense expected to be recognized is approximately \$13,781 per year for a five-year aggregate total of \$68,902.

Other Expenses (Income) (Q1-21 Adjusted)

Please see the section "*Changes in Accounting Policies, Leases*".

Other Expenses	Q1-22	Q1-21	Net change	%
Interest (income) expense, net	\$ 8,188	\$ 6,115	\$ 2,073	34
Foreign exchange loss (gain)	20,265	20,210	55	-
Intellectual property	8,224	9,610	(1,386)	(14)
Loss on disposal of assets & lease modifications	11,922	-	11,922	100
Total Other Expenses, net	48,599	35,935	12,664	35

Interest (income) expense, net. This category of other expenses includes interest income earned on short-term investments netted, by interest expense from the financial liability related to the aircraft lease and long-term debt. Q1-22 interest increased \$2,073 compared to Q1-21 due to interest expense incurred on the HASCAP Loan.

Foreign exchange loss (gain). This category of other expenses includes losses and gains caused by changes in the relative currency exchange values of US\$ and CDN\$. The Company held significant net assets in US\$ at March 31, 2022 and March 31, 2021, including accounts receivable, cash and cash equivalents, short-term investments, US\$ lease obligations and the security deposit for the aircraft, all of which have

an effect on the unrealized foreign exchange gain and loss. At March 31, 2022, the CDN\$ to US\$ exchange rate was 2.0% higher as compared to the CDN\$ to US\$ exchange rate at December 31, 2021, resulting in the corresponding foreign exchange loss for Q1-22. At March 31, 2021, the CDN\$ to US\$ exchange rate was 0.9% higher as compared to the CDN\$ to US\$ exchange rate at December 31, 2020, resulting in the corresponding foreign exchange loss for Q1-22. The foreign exchange loss was similar in each period as the Company's US\$ net assets were approximately 59% lower at March 31, 2022 versus March 31, 2021.

The Company does not currently enter into hedging contracts, but does however use alternative strategies to reduce the volatility of US dollar assets including converting excess US dollars to CDN dollars.

IP and other. This category of other expenses primarily includes costs related to IP filings and research & development activity related to the SFD® technology.

In Q1-22, the Company's IP and other expenses were associated with periodic patent maintenance and renewal fees required during these time periods.

Loss on disposal of assets & lease modifications. In Q1-22, the Company surrendered 826 square feet of office space. Please refer to the section "*Contract Obligations*" for a discussion on the office lease surrender. As a result of the space surrender, the recorded a loss on disposal of leasehold improvement assets and lease modifications.

Income Tax Expense.

There was no income tax expense in Q1-22 or Q1-21.

Competition

Our SFD® airborne survey service is based upon a proprietary technology, which is capable of remotely identifying, from a survey aircraft, subsurface anomalies associated with potential hydrocarbon traps with a resolution that we believe is technically superior to other airborne survey systems. To our knowledge there is no other company employing technology comparable to our SFD® survey system for oil and natural gas and geothermal exploration.

Seismic is the standard technology used by the oil and gas industry to image subsurface structures. It is our view that the SFD® survey system is highly complementary to seismic analysis. Our system may reduce the need for seismic in wide-area reconnaissance but will not replace the role of seismic in verifying structure, closure and selecting drilling locations. The seismic industry is very competitive with many international and regional service providers.

The SFD® system can be used as a focusing tool for seismic. With an SFD® survey, a large tract (i.e. over 5,000 square kilometers) of land can be evaluated quickly to identify locations with indications of reservoir potential. Seismic surveys, although effective in identifying these locations, are much more expensive, require significantly more time and impose a much greater negative impact on local communities and the environment. An SFD® survey deployed first can provide necessary information to target a seismic program over a limited area of locations selected by SFD®. This approach can result in a more effective seismic program and reduce the overall cost, time, community resistance and environmental impact required to locate and qualify a prospect.

The industry uses other technologies for wide area oil and natural gas reconnaissance exploration, such as aeromagnetic and gravity surveys. These systems can provide regional geological information, such as basement depth, sedimentary thickness and major faulting and structural development.

Risk and Uncertainties

Hydrocarbon and geothermal exploration operations involve a number of risks and uncertainties that have affected our unaudited condensed consolidated interim financial statements and are reasonably likely to affect them in the future. These risks and uncertainties are discussed further below.

Development, Commercialization and Protection of the Geothermal Right

With the acquisition of the Geothermal Right, the Company will continue to refine and develop the SFD® survey system to commercialize the Geothermal Right. This development requires substantial time and resources, and continued government assistance is not guaranteed. Furthermore, even if resources are available, there can be no assurance that the Company will be commercially or technically successful in enhancing the technology. If we are unable to develop and commercialize the geothermal applications of SFD® technologies, or adapt to evolving industry standards and demands, these could have a material adverse effect on our business, financial condition and results of operations.

Debt Service

NXT may finance a significant portion of its operations through debt. Amounts paid in respect of interest and principal on debt incurred by NXT may impair NXT's ability to satisfy its other obligations. Variations in interest rates and scheduled principal repayments could result in significant changes in the amount required to be applied to debt service before payment by NXT of its debt obligations. Lenders may be provided with security over substantially all of the assets of NXT. If NXT becomes unable to pay its debt service charges or otherwise commits an event of default such as bankruptcy, a lender may be able to foreclose on or sell the assets of NXT.

Credit Risk

Credit risk arises from the potential that the Company may incur a loss if a counterparty to a financial instrument fails to meet its obligation in accordance with agreed terms. The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments and accounts receivable. The carrying value of cash and cash equivalents, short-term investments, and accounts receivable reflects management's assessment of credit risk. At March 31, 2022, cash and cash equivalents and short-term investments included balances in bank accounts, term deposits and guaranteed investment certificates, placed with financial institutions with investment grade credit ratings. The majority of the Company's accounts receivable relate to sales to one customer in the African region and is exposed to foreign country credit risks. The Company manages this credit risk by requiring advance payments before entering into certain contract milestones and when possible accounts receivable insurance.

Foreign Exchange Risk

The Company is exposed to foreign exchange risk in relation to its holding of significant US\$ balances in

cash and cash equivalents, short-term investments, accounts receivable, deposits, accounts payables, accrued liabilities, and lease obligations, and entering into United States dollar revenue contracts. The Company does not currently enter into hedging contracts, but to mitigate exposure to fluctuations in foreign exchange the Company uses strategies to reduce the volatility of United States dollar assets including converting excess United States dollars to Canadian dollars. As at March 31, 2022, the Company held net United States dollar assets totaling US\$803,028. Accordingly, a hypothetical 10% change in the value of one United States dollar expressed in Canadian dollars as at March 31, 2022 would have had an approximately \$100,234 effect on the unrealized foreign exchange gain or loss for the period.

Interest Rates

We periodically invest available cash in short term investments that generate interest income that will be affected by any change in interest rates.

Tax Rates

Changes in tax rates in the jurisdictions that we operate in would impact the amount of current taxes that we pay. In addition, changes to substantively enacted tax rates would impact the carrying balance of deferred tax assets and liabilities, potentially resulting in a deferred tax recovery or incremental deferred tax expense.

In addition to the above, we are exposed to risk factors that may impact the Company and our business. For further information on these risk factors, please refer to our Annual Information Form, available on NXT's website at www.nxtenergy.com and on SEDAR at www.sedar.com.

Summary of Quarterly Results

A summary of operating results for each of the trailing eight quarters (including a comparison of certain key categories to each respective prior quarter) follows. (Adjusted Q2-21 and Q2-20.)

	Q1-22	Q4-21	Q3-21	Q2-21
Survey revenue	\$ -	\$ (10,123)	\$ -	\$ 3,144,373
Net income (loss)	(1,840,868)	(1,573,587)	(1,434,442)	1,531,522
Income (loss) per share – basic	\$ (0.03)	\$ (0.02)	\$ (0.02)	\$ 0.02
Income (loss) per share – diluted	\$ (0.03)	\$ (0.02)	\$ (0.02)	\$ 0.02

	Q1-21	Q4-20	Q3-20	Q2-20
Survey revenue	\$ -	\$ -	\$ -	\$ 136,566
Net income (loss)	(1,647,292)	(1,653,447)	(1,487,821)	(1,439,363)
Income (loss) per share – basic	\$ (0.03)	\$ (0.03)	\$ (0.02)	\$ (0.02)
Income (loss) per share – diluted	\$ (0.03)	\$ (0.03)	\$ (0.02)	\$ (0.02)

In Q1-22, the Company incurred maintenance fees on its aircraft to have it available for up to 300 flight hours. In Q4-21, the Canada Emergency Wage Subsidy ("CEWS") and Canada Emergency Wage Subsidy ("CERS") programs were ended therefore increasing G&A costs. In Q3-21, the Company recorded favourable exchange gains due to the strengthening of the US\$. In Q2-21, revenue was recognized for a pre-existing SFD[®] sale of data. In Q1-21, costs were lower due to lower aircraft costs, a reduction in RSU accruals and less fluctuation of exchange rates. In Q4-20, the Company received the CEWS and the CERS which reduced costs. In Q3-20, the Company received the CEWS and the Scientific Research and Experimental Development Credit ("SR&ED") which also reduced costs. During Q2-20, revenue was earned on the recognition of the forfeited deposit from Alberta Green Ventures Limited Partnership ("AGV"), payable pursuant to the existing co-operation agreement between NXT and AGV (the "Co-operation Agreement"). Excluding Q2-21, the Company incurred net losses primarily due to incurred SFD[®] related costs related to aircraft lease and aircraft maintenance costs, G&A expenses and non-cash items like SBCE, which can be a significant expense in any given quarter. More specific details are provided below:

- in Q1-22, the Company incurred maintenance fees on its aircraft to have it available for up to 300 flight hours;
- in Q4-21, the Company only received grants from the CEWS and CERS for one month due to the termination of these programs;
- in Q3-21, the US\$ strengthened vs the CDN\$ which resulted in a \$102,632 exchange gain;
- in Q2-21, revenue was earned for a pre-existing SFD[®] sale of data and costs were lower due to receipt of the CEWS and the CERS. Additionally there was no business development travel due to restrictions from the COVID-19 pandemic;
- in Q1-21, costs were lower due to lower aircraft costs, a reduction in RSU accruals and less fluctuation of exchange rates;
- in Q4-20, costs were reduced primarily due to recognizing \$123,105 benefits under the CEWS and the CERS, and due to reduced travel;
- in Q3-20, costs were reduced primarily due to recognizing \$189,135 benefits under the CEWS and the SR&ED, and reduced travel; and
- in Q2-20, \$136,566 revenue was earned on the recognition of the forfeited deposit from AGV, payable pursuant to the Co-operation Agreement.

Liquidity and Capital Resources

Going Concern

The unaudited condensed consolidated interim financial statements for Q1-22 have been prepared on a going concern basis. The going concern basis of presentation assumes that NXT will continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business.

The events described in the following paragraphs highlight that there is substantial doubt about NXT's ability to continue as a going concern within one year after the date that these unaudited condensed consolidated interim financial statements have been issued. The Company's current cash position is not

expected to be sufficient to meet the Company's obligations and planned operations for a year beyond the date that these condensed consolidated financial interim statements have been issued.

The Company has plans in place to reduce operating costs including payroll and other G&A costs and is evaluating alternatives to reduce other costs. If required, further financing options that may or may not be available to the Company include issuance of new equity, debentures or bank credit facilities. The need for any of these options will be dependent on the timing of securing new SFD® survey contracts and obtaining financing on terms that are acceptable to both the Company and the financier.

NXT continues to develop its pipeline of opportunities to secure new revenue contracts. However, the Company's longer-term success remains dependent upon its ability to convert these opportunities into successful contracts, to continue to attract new client projects, ultimately to expand the revenue base to a level sufficient to exceed fixed operating costs and generate consistent positive cash flow from operations. The occurrence and timing of these events cannot be predicted with sufficient certainty.

The unaudited condensed consolidated interim financial statements do not reflect adjustments that would be necessary if the going concern basis was not appropriate. If the going concern basis was not appropriate for the unaudited condensed consolidated interim financial statements, then adjustments would be necessary in the carrying value of the assets and liabilities, the reported revenues and expenses and the balance sheet classifications used. These adjustments could be material.

NXT's cash and cash equivalents plus short-term investments at March 31, 2022 totaled \$1.87 million. Net working capital totaled \$1.35 million. See the information in the section "*Liquidity and Capital Resources – Net Working Capital*" for further information.

Risks related to having sufficient ongoing net working capital to execute survey project contracts are mitigated through our normal practice of obtaining advance payments and progress payments from customers throughout the course of the projects, which often span three to four months. In addition, where possible, risk of default on client billings has been mitigated through the use of export insurance programs offered by Export Development Canada.

The Company does not have provisions in its leases, contracts, or other arrangements that would trigger additional funding requirements or early payments except that if the Company were to default on its office lease, the current month rent plus the next three months become immediately due. If the Company were to default on the aircraft lease, the Company would be required to deliver the aircraft back to the Lessor.

Net Working Capital

Net Working Capital	March 31, 2022	December 31, 2021	Net Change	%
Current assets (current liabilities)				
Cash, cash equivalents and short-term investments	\$1,868,993	\$2,807,855	\$ (938,862)	(33)
Accounts receivable	565,655	841,567	(275,912)	(33)
Prepaid expenses and deposits	252,244	265,436	(13,192)	(5)
Accounts payable and accrued liabilities	(675,405)	(500,625)	(174,780)	(35)
Current portion of long-term debt	(92,593)	(64,815)	(27,778)	(43)
Current portion of lease obligation	(572,750)	(532,936)	(39,814)	(7)
Total Net Working Capital	1,346,144	2,816,482	(1,470,338)	(52)

NXT had net working capital of \$1,346,144 as at March 31, 2022.

Net working capital at March 31, 2022 compared to December 31, 2021 decreased by \$1,470,338 or 52% due to cash used in operating activities offset by cash received from payments on accounts receivable. Accounts payable increased due to annual timing of professional fees and payroll accruals.

Accounts Payable

Accounts Payable	Mar 31, 2022	Dec 31, 2021	Net Change	%
Trade accounts payable	\$ (37,679)	\$ (122,935)	\$ 85,256	69
Deferred advisor board payable	(23,404)	(23,896)	492	2
Accrued liabilities	(347,083)	(171,714)	(175,369)	(102)
Accrued directors fees payable	(38,750)	-	(38,750)	(100)
Vacation pay accrued	(112,610)	(102,536)	(10,074)	(10)
RSU and ESP Plan liability	(115,879)	(79,544)	(36,335)	(46)
Total accounts payable	(675,405)	(500,625)	(174,780)	(35)

Accounts payable increased by \$174,780 or 35%, as at March 31, 2022 compared to December 31, 2021 for the following reasons:

- trade accounts payable decreased by \$85,256, or 69%, due to timing of payables at the stated dates;
- accrued liabilities increased by \$175,369, or 102%, due to timing of annual professional fee and aircraft maintenance accruals;
- accrued directors fees payable increased by \$38,750, or 100%, as payment of directors' fees were deferred;
- vacation pay accrued increased by \$10,074, or 10%, due to timing of vacations; and
- RSU Plan and ESP Plan liabilities increased by \$36,335 due to the RSU Plan share issuance only being settled once per year (August).

Long-term Debt (HASCAP Loan)

On May 26, 2021, the Company received \$1,000,000 from the BDC's HASCAP Loan. The HASCAP Loan is a \$1,000,000 non-revolving ten-year term credit facility with an interest rate of 4%. Repayment terms are interest only until May 26, 2022, and monthly principal plus interest payments for the remaining nine years. The HASCAP Loan is secured by a general security agreement and is guaranteed by BDC.

Maturity of long-term debt:	
2022	\$ 94,167
2023	146,481
2024	142,037
2025	137,593
2026	133,148
2027 to 2031	534,907
Total principal and interest payments	1,188,333
Less interest	(188,333)
Total principal remaining	1,000,000
Current portion of long-term debt	92,593
Non-current portion of long-term debt	907,407

Cash Flow (Q1-21 Adjusted)

Please see the section "Changes in Accounting Policies, Consolidated Statement of Cash Flows".

Cash Flow - from / (used in)	Q1-22	Q1-21
Operating activities	\$ (913,141)	\$ (847,129)
Financing activities	(11,844)	(16,556)
Investing activities	(150,272)	191,261
Effect of foreign exchange changes on cash	(13,877)	(14,499)
Net source (use) of cash	(1,089,134)	(686,923)
Cash and cash equivalents, start of period	2,257,855	2,690,146
Cash and cash equivalents, end of period	1,168,721	2,003,223
Cash and cash equivalents, end of period	1,168,721	2,003,223
Short-term investments, end of period	700,272	150,000
Total cash and short-term investments, end of period	1,868,993	2,153,233

The overall net changes in cash balances in each of the quarters noted above is a function of several factors including any inflows (outflows) due to changes in net working capital balances and net of any cash transferred into/out of short-term investments. Further information on the net changes in cash, by each of the operating, financing and investing activities, is as follows:

Operating Activities	Q1-22	Q1-21
Net income (loss) for the period	\$(1,840,868)	\$(1,647,292)
Total non-cash expense items	514,460	484,989
Operating activities before change in non-cash working capital balances	(1,326,408)	(1,162,303)
Change in non-cash working capital balances	413,267	315,174
Total cash from (used in) operating activities	(913,141)	(847,129)

Operating cash flow decreased by \$66,012 in Q1-22 as compared to Q1-21 due to increased aircraft maintenance costs offset by higher accounts receivable collections.

Financing Activities	Q1-22	Q1-21
Proceeds from the employee share purchase plan	16,106	19,635
Repayment of finance liability	(27,950)	(36,191)
Total cash from (used in) financing activities	(11,844)	(16,556)

Proceeds were received from employee contributions under the ESP Plan. The repayment of finance liability were for the financing liability for the sales and leaseback agreement on NXT's aircraft and have ended in Q1-22.

Investing Activities	Q1-22	Q1-21
Proceeds from (used in) short-term investments	(150,272)	191,261
Total Cash from Investing Activities	(150,272)	191,261

Changes in short-term investments were for investments in guaranteed investment certificates to fund operations and investing of excess short-term cash.

Contractual Obligations

The estimated minimum annual commitments for the Company's lease components as at March 31, 2022 are listed in the following table:

Lease payment obligations:	Total	2022	2023	2024	2025
Office	\$ 1,195,152	\$ 256,104	\$ 341,472	\$ 341,472	\$ 256,104
Office operating costs	778,736	166,872	222,496	222,496	166,872
Aircraft lease ¹	645,944	273,980	337,014	34,950	-
Office equipment	3,600	3,600	-	-	-
Total	2,623,432	700,556	900,982	598,918	422,976

1. US\$ payments have been converted to CDN\$ at a rate of 1.2482.

On March 15, 2022, the Company surrendered 826 square feet of its office building lease to the landlord. As a result its non-lease operating cost commitments for the building lease will reduced by approximately \$13,881 for 2022, \$17,537 for 2023 and 2024, and \$13,150 for 2025. The Company incurred a surrender fee of \$14,000. The Company derecognized the following amounts on its balance sheet in the quarter and recorded a gain on the remeasurement of the lease of \$3,062:

Right of Use Assets	\$ 80,033
Lease obligations	83,095

Long-term Debt (HASCAP Loan)

Please refer to the section "*Liquidity and Capital Resources*" for a discussion on the contractual obligations for the HASCAP Loan.

Off-balance Sheet Arrangements

The Company has no off-balance sheet arrangements as of the date of this MD&A other than office premise non-lease operating costs with Interloq Capital Corp. (the "Landlord"). If the Company were to default on its office lease the current month rent including operation costs plus the next three months become immediately due. Operating cost amounts are disclosed in the section "*Liquidity and Capital Resources – Contractual Obligations*". NXT pays an estimated operating cost during the current year, but has the obligation to pay the actual operating costs incurred as defined in the office lease with the Landlord early in the first quarter of the preceding year if the estimate was low, or will receive a refund if the estimate was too high. Currently, the Company believes that the current operating cost estimate is reasonable and is consistent with discussions with the Landlord.

Transactions with Related Parties

Related party fees incurred were as follows:

	Q1-22	Q1-21
Legal fees	\$ 10,965	\$ 17,380
Design services ¹	-	4,013

1. US\$3,000.

One of the members of NXT's Board of Directors is a partner in a law firm which provides legal advice to NXT. Accounts payable and accrued liabilities includes a total of \$12,832 (\$16,000 as at December 31, 2021) payable to this law firm.

Accounts payable and accrued liabilities includes \$3,336 (\$11,467 as at December 31, 2021) related to reimbursement of expenses owing to an executive officer and \$38,750 (\$nil as at December 31, 2021) for Board of Directors fees.

A company owned by a family member of an executive officer was contracted to provide presentation design services to the Company in 2021.

Critical Accounting Estimates

In preparing these unaudited condensed consolidated interim financial statements, NXT is required to make estimates and assumptions that affect both the amount and timing of recording assets, liabilities, revenues and expenses since the determination of these items may be dependent on future events. The Company uses the most current information available and exercises careful judgment in making these estimates and assumptions. In the opinion of management, the unaudited condensed consolidated interim financial statements have been properly prepared within reasonable limits of materiality and within the framework of the Company's significant accounting policies. The estimates and assumptions used are based upon management's best estimate as at the date of the unaudited condensed consolidated interim financial statements. Estimates and assumptions are reviewed periodically and the effects of revisions are reflected in the period when determined. Actual results may differ from those estimates.

Critical accounting estimates relate primarily to the use of the going concern assumption, estimated useful lives and the valuation of intellectual property and property and equipment, and the measurement of stock-based compensation expense.

Changes in Accounting Policies

The unaudited condensed consolidated interim financial statements of NXT for Q1-22 have been prepared by management in accordance with US GAAP. The accounting policies applied are consistent with those outlined in NXT's annual audited consolidated financial statements for the year ended December 31, 2021 available on NXT's website at www.nxtenergy.com and on SEDAR at www.sedar.com.

Leases

During Q3-21, the Company determined that the amounts previously recorded for the aircraft lease were calculated incorrectly and the United States dollar denominated lease liability had not been re-measured to Canadian dollars each reporting period as required. The result of these corrections are to reduce the value of both the Right of use assets and Lease obligations, with changes to related income statement. The Company has determined that the effect of these adjustments are not material. The Company has recorded the adjustments in the related accounts in the comparative periods in this MD&A. On the balance sheet and income statement, the specific accounts affected are Deposits, Right of use assets, Current portion of lease obligations, Long-term lease obligations, Deficit, SFD[®] related costs, Interest income (expense), and Foreign exchange loss (gain). The loss per share in each of the comparative periods did not change as a result of these immaterial corrections. The tables below highlights the changes to each account in each of the comparative period presented in this MD&A.

Income Statement	For the quarter ended March 31, 2021		
	As previously reported	Adjustments	Adjusted
SFD® related costs	\$ 265,483	\$ 132	\$ 265,615
Interest (income) expense	6,115	(609)	5,506
Foreign exchange loss (gain)	20,210	4,218	24,428
Net loss	(1,643,551)	(3,741)	(1,647,292)
Deficit	(85,557,781)	51,775	(85,506,006)

Consolidated Statement of Cash Flows

In the preparation of the annual financial statements as at and for the year ended December 31, 2021, the Company has determined that certain amounts previously recorded in the 2021 consolidated statements of cash flows were not correctly calculated to properly reflect payments on the financial liability, lease obligation payments and accretion, and application of exchange rates to calculate unrealized foreign exchange (gain) loss including the effect of foreign exchange on changes on cash and cash equivalents. The adjustments to correct the respective financial statement line items are not material and did not change the Cash, SFD® related revenues, or Net income (loss) accounts or basic and diluted loss per share. The Company has recorded the adjustments in the related line items in each of the comparative periods. Line items affected on the Consolidated Statement of Cash Flows by the adjustment are: Non-cash lease costs, Change in the carrying amount of right of use assets and lease liabilities, unrealized foreign exchange (gain) loss, Repayment of financial liability and finance lease obligations, Proceeds from (used in) short-term investments, and Effect of foreign exchange rate changes on cash and cash equivalents. The table below highlights the changes to each line item in the comparative period in this MD&A.

Consolidated Statements of cash flows	For the quarter ended March 31, 2021		
	As previously reported	Adjustments	Adjusted
Net loss	\$ (1,643,551)	\$ (3,741)	\$ (1,647,292)
Non-cash lease costs	(42,824)	39,890	(2,934)
Change in carrying amount of right of use assets & lease liabilities	-	6,301	6,301
Unrealized foreign exchange (gain) loss	25,529	(6,259)	19,270
Operating activities	(883,320)	36,191	(847,129)
Repayment of financial liability and lease obligations	-	(36,191)	(36,191)
Financing activities	19,635	(36,191)	(16,556)
Net increase (decrease) in cash and cash equivalents	(686,923)	-	(686,923)

Financial Instruments and Other Instruments

The Company's non-derivative financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities. The carrying value of these financial instruments approximates their fair values due to their short terms to maturity. NXT is not exposed to significant interest arising from these financial instruments, but is exposed to significant credit risk with accounts receivable. For accounts receivable, where possible, NXT requests advance payments and utilizes risk mitigation products offered by entities such as Export Development Canada including, for example, insurance coverage of contract accounts receivable, guarantee support for contract performance bonds and wrongful call insurance for such bonds.

NXT is exposed to foreign exchange risk as a result of holding foreign denominated financial instruments. Any unrealized foreign exchange gains and losses arising on such holdings are reflected in earnings at the end of each period.

As at March 31, 2022 and March 31, 2021, the Company held no derivative financial instruments. For more information relating to risks, see the section titled "*Liquidity and Capital Resources – Net Working Capital*".

Outstanding Share Capital

	May 12, 2022	March 31, 2022	December 31, 2021
Common Shares	65,332,417	65,301,972	65,250,710
Options	381,560	381,560	358,660
Deferred Share Units	37,354	37,354	37,354
Restricted Share Units	696,666	696,666	696,666
Total share capital and dilutive securities	66,447,997	66,417,552	66,343,390

	Director & Officer Share Capital at		
	May 12, 2022	March 31, 2022	December 31, 2021
Frank Ingriselli ¹	50,000	50,000	50,000
George Liszicasz ^{1 & 2}	15,383,036	15,381,432	15,378,679
Charles Selby ¹	408,161	408,161	408,161
John Tilson ¹	5,916,208	5,916,208	5,916,208
Bruce G. Wilcox ¹	410,000	410,000	410,000
Eugene Woychyshyn ²	217,236	205,440	185,445
Total Director and Officer Share Capital	22,384,641	22,371,241	22,348,493

¹ Director of NXT

² Officer of NXT

Disclosure Controls and Procedures ("DCPs") and Internal Controls over Financial Reporting ("ICFR")

NXT's CEO and Chief Financial Officer (together the "Responsible Officers") are responsible for establishing and maintaining DCPs, or causing them to be designed under their supervision, for NXT to provide reasonable assurance that material information relating to the Company is made known to the Responsible Officers by others within the organization, particularly during the period in which the Company's year-end consolidated financial statements and MD&A are being prepared.

DCPs and other procedures are designed to ensure that information required to be disclosed in reports that are filed is recorded, summarized and reported within the time periods specified by the relevant securities regulatory authorities in either Canada or the United States of America. DCPs include controls and procedures designed to ensure that information required to be disclosed in our reports is communicated to management, including our Responsible Officers, to allow timely decisions regarding required disclosure.

The Company has established and maintains ICFR using the criteria that were set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework (2013). The control framework was designed or caused to be designed under the supervision of the Responsible Officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US GAAP.

In evaluating the effectiveness of the Company's DCPs as defined under the rules adopted by the Canadian securities regulatory authorities and by the United States Securities and Exchange Commission, the Company's Responsible Officers concluded that there are material weaknesses in the Company's ICFR that have a direct impact on the Company's DCPs:

- due to the limited number of staff, it is not feasible to achieve adequate segregation of incompatible duties – NXT partially mitigates this deficiency by adding management and Audit Committee review procedures over the areas where inadequate segregation of duties are of the greatest concern; and
- NXT does not have a sufficient level of staff with specialized expertise to adequately conduct separate preparation and a subsequent independent review of certain complex or highly judgmental accounting issues. NXT partially mitigates this deficiency by preparing financial statements with their best judgments and estimates of the complex accounting matters and relies on reviews by management, external consultants and the Audit Committee.

From time to time to reduce these risks and to supplement a small corporate finance function, the Company engages various outside experts and advisors to assist with various accounting, controls and tax issues in the normal course.

Given the small size of the Company's finance team, management has established a practice of increased engagement of the Company's Disclosure Committee and Audit Committee in reviewing the public disclosure and has increased the engagement of external consultants and legal counsel as well.

The Responsible Officers concluded that, as at March 31, 2022, its ICFR is not effective and as a result its DCPs are not sufficiently effective. NXT reached this conclusion based upon its assessment that there is a more than remote likelihood that its ICFR will not prevent or detect material misstatements if they should

exist in the Company's consolidated financial statements. The Responsible Officers continue to take certain actions to mitigate these material weaknesses including:

- the implementation of controls with regards to the review procedures surrounding its disclosure; and
- engagement of third-party specialists. In addition, the Chief Financial Officer engages subject matter consultants as the need arises.

There were no changes to the Company's ICFR in Q1-22.

It should be noted that a control system, including the Company's DCPs and ICFR, no matter how well conceived, can provide only reasonable, but not absolute assurance that the objectives of the control system will be met, and it should not be expected that the DCPs and ICFR will prevent all errors or fraud.

Additional Information

Additional information related to the Company, including the Company's Annual Information Form, is available on NXT's website at www.nxtenergy.com and on SEDAR at www.sedar.com.