



NXT ENERGY SOLUTIONS INC.

Management's Discussion and Analysis

**For the three months ended
March 31, 2021**

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 11, 2021 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, 2021. This MD&A covers the unaudited three month period ended March 31, 2021, with comparative amounts for the unaudited three months ended March 31, 2020.

Our functional and reporting currency is the Canadian dollar. All references to "dollars", or "\$", 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" 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 Toronto Stock Exchange approval, research funding, cash balances, receipt of funds, and the execution and completion of contracts);
- the number of common shares in the capital of NXT ("Common Shares") owned by Mr. George Liszicasz, as well as the total number of Common Shares issued and outstanding, upon the issuance and receipt of the 300,000 Common Shares as part of the Consideration;
- 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;
- estimates related to our future financial position and liquidity; 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 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;
- health, safety and the environment (including risks related to the COVID-19 pandemic);
- the emergence of alternative competitive technologies;
- 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;
- 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 – Risks 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 consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP" or "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 be 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 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 Q1-21 are summarized below:

- cash and short-term investments at March 31, 2021 were \$2.15 million;
- no survey revenue was recorded;
- a net loss of \$1.64 million was recorded, or (\$0.03) per common share (basic and diluted), including stock-based compensation and amortization expense of \$0.47 million;
- cash flow used in operating activities was \$0.88 million; and
- general and administrative costs decreased by \$0.10 million or 10% as compared to Q1-20, due primarily to the Company incurring no travel costs and lower professional fees.

Key financial and operational highlights occurring subsequent to Q1-21 are summarized below:

- the Company acquired the right to use SFD[®] technology to explore for geothermal resources (the "Geothermal Right") from Mr. George Liszicasz, Chairman, President and Chief Executive Officer of NXT; and
- in April 2021 the Company received a deposit of US\$1,000,000 to in connection with the sale of pre-existing SFD[®] data.

Discussion of Operations

COVID-19 Pandemic

As of the date of the condensed consolidated interim financial 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 if, for example, restrictions on international travel continue and/or an outbreak of the virus among our or our customers' personnel were to result in us not being able to perform surveys. Business development may be delayed when in-person meetings and technical

presentations may be a superior delivery method when compared to tele-conferences or on-line video conferencing.

The situation 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 these consolidated financial statements are subject to a higher degree of measurement uncertainty during this volatile period.

Acquisition of the Geothermal Right

Description of the “Acquisition”

The Company acquired the SFD[®] Geothermal Right from Mr. George Liszicasz, Chairman, President and Chief Executive Officer of NXT on April 18, 2021 (the “Acquisition”). The agreement providing for the Acquisition was negotiated between Mr. Liszicasz a special committee of the Board comprised entirely of independent directors (the “Committee”). The consideration payable by the Company in connection with the Acquisition includes the following:

1. US\$40,000 signature payment, which became due immediately and was paid on April 22, 2021;
2. 300,000 Common Shares, which became due on April 18, 2021 and will be issued upon receipt of Toronto Stock Exchange (the “TSX”) approval;
3. CAD\$20,000 milestone payment which will become due in the event that the Company receives research funding in excess of \$100,000, or \$25,000 in the event the Company receives research funding in excess of \$200,000;
4. US\$200,000 milestone payment which will become due in the event that the Company’s cash balance exceeds \$5,000,000 due to receipt of 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, (collectively, the “Consideration”).

Geothermal applications of the SFD[®] technology include naturally occurring sub-surface fluid reservoirs or rock conditions from which heat can be extracted and utilized for generating electric power, or for direct utilization in industrial, agricultural or domestic applications. The main subsurface properties such as porosity, permeability and impermeable cap rock that are vital in the search for oil and gas resources and are equally critical for locating the most prospective geothermal resources. For these reasons, the SFD[®] technology has a natural extension to geothermal applications.

Since first commercialized in 2007 for hydrocarbon use, NXT’s non-intrusive SFD[®] airborne technology enables its customers to significantly improve drill success rates while reducing the overall negative environmental impact of traditional large-scale ground surveys by minimalizing disruptions to community life and surface use. NXT anticipates applying for patent protection for the geothermal applications of SFD[®] once development of the SFD[®] sensors reach appropriate milestones.

As industries worldwide transition toward a low-carbon economy, geothermal energy has gained greater prominence for its environmental benefits as a non-intermittent renewable energy source. NXT will begin to utilize the research and marketing skillsets acquired in hydrocarbon resources to develop and commercialize the application of the SFD® technology for geothermal resource exploration. By expanding the Company's scope of business to include exploring for both hydrocarbon and geothermal resources, the Company anticipates that its scope of revenue sources will expand as well.

Description of Review and Approval Process

The Acquisition constituted a "related party transaction" for the purposes of Multilateral Instrument 61-101 *Protection of Minority Security Holders in Special Transactions* ("MI 61-101) on the basis that Mr. Liszicasz is a director, officer and control person of the Company.

The Acquisition was reviewed and unanimously approved by the Committee which took into consideration the fair market value of the Geothermal Right as determined by them acting in good faith. Due to the fair market value not being readily determinable, the Committee considered the potential value to be realized by the Company in exercising the Geothermal Right, the value of the consideration being offered to Mr. Liszicasz, and the effect on the Company's share ownership before and after the completion of the Acquisition.

The Acquisition was exempt from the formal valuation and disinterested shareholder approval requirements typically applicable to related party transactions under MI 61-101 on the basis that, at the time the Acquisition was agreed to, neither the fair market value of the Geothermal Right (as determined by the Committee acting in good faith, due to the fair market value not being readily determinable), nor the fair market value of the Consideration to be received by Mr. Liszicasz for the Geothermal Right, exceeded 25% of the Company's market capitalization, calculated as follows:

- fair market value of the Geothermal Right and fair market value of the Consideration, approximately \$820,000 if all of the milestones are met;
- market capitalization of the Company, approximately \$39,999,251; and
- fair market value as a % of market capitalization, 2.0%.

Following the issuance of the 300,000 Common Shares, Mr. Liszicasz's ownership is expected to increase from 15,037,234 Common Shares (representing approximately 23.3% of the 64,534,018 Common Shares issued and outstanding as at the date of this MD&A to 15,337,732 Common Shares (representing approximately 23.8% of the Company's 64,834,018 Common Shares expected to then be issued and outstanding, assuming no other changes in the number of issued and outstanding Common Shares prior to issuance of the 300,000 Common Shares to Mr. Liszicasz).

Mr. Liszicasz retains all rights, title and interest in and to the SFD® technologies for all other commercial applications, except for respect to hydrocarbons and geothermal resources.

Pre-existing Data Sale

In April 2021, the Company received a deposit of US\$1,000,000 to sell pre-existing SFD® data. The SFD® data was delivered to the customer in the second quarter of 2021. The Company has received payments of US\$1,100,000 in respect of this pre-existing SFD® data.

Patents

As of the date of this MD&A, NXT has been granted SFD® patents in 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 44 countries. In addition, two more SFD® patent applications in Brazil and India are pending. 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	Q1-20
Survey revenue	\$ -	\$ -
Expenses:		
Survey costs, net	265,483	301,961
General and administrative expenses	900,309	995,999
Amortization	441,824	448,381
	1,607,616	1,746,341
Other Expenses (income):		
Interest (income) expense, net	6,115	(12,647)
Foreign exchange loss (gain)	20,210	(409,517)
Intellectual property and other	9,610	8,124
	35,935	(414,040)
Loss before income taxes	(1,643,551)	(1,332,301)
Income tax expense	-	-
Net loss and comprehensive loss	(1,643,551)	(1,332,301)
Net loss per share – basic	\$ (0.03)	\$ (0.02)
Net loss per share – diluted	\$ (0.03)	\$ (0.02)

Quarterly operating results. Net loss for Q1-21 compared to Q1-20 increased by \$311,250, or \$0.01 per share-basic. Survey costs, net, were \$36,478 lower due to lower maintenance costs and mapping software costs. General and administrative (“G&A”) expenses decreased by \$95,690, or 10%, compared to Q1-20, due primarily to no business development travel and lower professional fees. Interest (income) expense, net decreased \$18,762 in Q1-21 versus Q1-20 as interest rates have decreased versus the prior year quarter as well as less cash was held in short-term investments. With respect to foreign exchange, the

Company held significant assets in US\$ as at March 31, 2020, the Canadian dollar (“CDN\$”) weakened as compared to the US\$ at December 31, 2019, resulting in the corresponding foreign exchange gain for Q1-20. The foreign exchange loss for Q1-21 was the result of the strengthening of the CDN\$ vs the US\$ between December 31, 2020 and March 31, 2021. Intellectual property and other expenses in Q1-21 related mostly to costs associated with maintaining the validation process for certain SFD® patents and were consistent period over period.

Survey Costs, net

Survey Costs	Q1-21	Q1-20	Net change
Aircraft lease costs	\$ 105,325	\$ 102,596	\$ 2,729
Aircraft operations	140,450	194,183	(53,733)
Survey projects	19,708	5,182	14,526
Total survey costs, net	265,483	301,961	(36,478)

Survey costs relate entirely to charter costs, lease expenses and aircraft handling and maintenance costs (net of charter hire reimbursements). In Q1-21, survey costs were lower as scheduled maintenance and mapping software costs were lower compared to Q1-20. In addition the Company incurred costs to prepare for the Pre-existing SFD® data sale.

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.

In April 2017, NXT completed a sale and leaseback agreement of its aircraft with a Calgary-based international aircraft services organization (the "Lessor"). NXT has leased the aircraft over an initial term of 60 months and retains all existing operating rights and obligations. NXT is required to make monthly payments to the Lessor of approximately US\$39,500. NXT has the option to extend the term of the lease by an additional two years for payments of approximately US\$22,500 per month. Should NXT want to repurchase the aircraft at the end of the initial lease term, the purchase price will be US\$1.45 million.

General and Administrative Expenses

G&A Expenses	Q1-21	Q1-20	Net change	%
Salaries, benefits and consulting charges	\$ 473,455	\$ 439,027	\$34,428	8
Board and professional fees, public company costs	193,004	228,009	(35,005)	(15)
Premises and administrative overhead	202,900	175,642	27,258	16
Business development	4,454	131,656	(127,202)	(97)
Stock-based compensation	26,496	21,665	4,831	22
Total G&A Expenses	900,309	995,999	(95,690)	(10)

G&A expenses decreased \$95,690, or 10%, in Q1-21 compared to Q1-20 for the following reasons:

- salaries, benefits and consulting charges increased \$34,428, or 8%, due primarily due to an increase in temporary headcount;

- board and professional fees and public company costs decreased \$35,005, or 15%, due primarily to decreased insurance costs and legal fees;
- premises and administrative overhead costs increased \$27,258, or 16%, due to building common area charges begin higher, and increased software and information technology costs;
- business development costs decreased by \$127,202, or 97%, due primarily to the restrictions on travel from the COVID-19 epidemic; and
- Stock-based compensation expenses (“SBCE”) were higher in Q1-21 vs Q1-20 by \$4,831, or 22% due to the employee share purchase plan which was commenced in Q4-20 and has approximately 75% employee participation. Details of SBCE as explained below.

Stock-based Compensation Expenses

Stock-based Compensation Expenses	Q1-21	Q1-20	Net change	% change
Stock Option Expense	\$ 3,750	\$ 17,915	\$ (14,165)	(79%)
Deferred Share Units	-	3,750	(3,750)	(100%)
Restricted Stock Units	(49)	-	(49)	(100%)
Employee Share Purchase Plan	22,795	-	22,795	100%
Total SBCE	26,496	21,665	4,831	22%

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 DSUs plan is a long-term incentive plan that permits the grant of DSUs to qualified directors. DSUs granted under the DSUs plan are to be settled at the retirement, resignation or death of the Board member holding the DSUs. RSUs entitle the holder to receive, at the option of the Company, either the underlying number of shares of the Company's Common Stock 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. The Company intends to settle the RSUs in cash. In the year ended December 31, 2020, the Company granted 1,200,000 RSU's to employees and officers. 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 TSX. During 2020 and 2021 the Company has elected to issue common shares from treasury.

SBCE in Q1-21 was higher compared to Q1-20 by \$4,831. The ESP Plan expense was not incurred in Q1-20 as the ESP Plan commenced in Q4-20. Option expense in Q1-21 was an option grant to a director who

elected to take options, compared to cash payments for part of his fees. Option expense in Q1-20 was a grant an award of 30,000 fully vested stock options.

Amortization

Amortization	Q1-21	Q1-20	Net change	%
Property and equipment	\$ 20,641	\$ 27,198	\$ (6,557)	(24)
Intellectual property	421,183	421,183	-	-
Total Amortization Expenses	441,824	448,381	(6,557)	(1)

Property and equipment and related amortization expense. Property and equipment amortization was lower in Q1-21 compared to Q1-20 due to additional assets becoming fully amortized during the period and the Company not acquiring new assets. 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 Chief Executive Officer, 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 Q1-21 or Q1-20. The Company acquired the SFD[®] technology rights for the Geothermal Right from NXT's Chairman, President and Chief Executive Officer on April 18, 2021. Amortization expense will increase beginning in Q2-21 as a result of the Acquisition.

Other Expenses (Income)

Other Expenses	Q1-21	Q1-20	Net change	%
Interest (income) expense, net	\$ 6,115	\$ (12,647)	\$ 18,762	148
Foreign exchange loss (gain)	20,210	(409,517)	429,727	105
Intellectual property and other	9,610	8,124	1,486	18
Total Other Expenses, net	35,935	(414,040)	449,975	109

Interest (income) expense, net. This category of other expenses includes interest income earned on short-term investments netted by interest expense from lease obligations. Q1-21 interest (income) expense decreased \$18,762 compared to Q1-20 as interest rates have decreased and less cash was held in short-term investments.

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 assets in US\$ at March 31, 2021, including accounts receivable, cash and cash equivalents, short-term investments and the security deposit for the aircraft, all of which have an effect on the unrealized foreign exchange gain and loss. At Q1-21, the CDN\$ strengthened as compared to the US\$ at Q1-20, resulting in the corresponding foreign exchange loss for Q1-21. During Q1-20 the CDN\$ weakened versus the US\$, as well

as the Company having larger US\$ balances in cash and short-term investments, resulting in a substantial foreign exchange gain.

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

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

In all periods, the Company's IP and other expenses related mostly to costs associated with maintaining patents and were consistent period over period.

Income Tax Expense.

There was no income tax expense in Q1-21 or Q1-20.

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 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 than more traditional methods. 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 exploration operations involve a number of risks and uncertainties that have affected our financial statements and are reasonably likely to affect them in the future. These risks and uncertainties are discussed further below.

Credit Risk

Credit risk arises from the potential that the Company may incur a loss if 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, 2021, 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 Nigeria 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 and accrued liabilities and entering into United States dollar revenue contracts. To mitigate exposure to fluctuations in foreign exchange, the Company does not currently enter into hedging contracts, however uses strategies to reduce the volatility of United States Dollar assets including converting excess United States dollars to Canadian dollars. As at March 31, 2021, the Company held net U.S dollar assets totaling US\$1,961,441. Accordingly, a hypothetical 10% change in the value of one United States dollar expressed in Canadian dollars as at March 31, 2021 would have had an approximately \$248,000 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.

	Q1-21	Q4-20	Q3-20	Q2-20
Survey revenue	\$ -	\$ -	\$ -	\$ 136,566
Net income (loss)	(1,643,551)	(1,685,210)	(1,502,456)	(1,479,709)
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)

	Q1-20	Q4-19	Q3-19	Q2-19
Survey revenue	\$ -	\$ -	\$1,021,532	\$10,954,618
Net income (loss)	(1,332,301)	(1,775,287)	(774,373)	8,085,888
Income (loss) per share – basic	\$ (0.02)	\$ (0.03)	\$ (0.01)	\$ 0.12
Income (loss) per share – diluted	\$ (0.02)	\$ (0.03)	\$ (0.01)	\$ 0.11

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 Canada Emergency Wage Subsidy (“CEWS”) and the Canada Emergency Rent Subsidy (“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”). In Q3-19 and Q2-19, the Company earned revenue from the Nigerian SFD® Survey. Excluding Q3-19 and Q2-19, the Company incurred net losses primarily due to incurred survey 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 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;
- in Q2-20, \$136,566 revenue was earned on the recognition of the forfeited deposit from AGV, payable pursuant to the Co-operation Agreement, and the Company incurred a \$135,991 foreign exchange loss partially offsetting the Q1-20 foreign exchange gain described below;
- in Q1-20, the Company incurred a \$409,517 foreign exchange gain as it held significant monetary assets in US dollars at March 31, 2020, including accounts receivable, cash and cash equivalents, short-term investments and the security deposit for the aircraft, and the CDN\$ devalued by approximately 9%;

- in Q4-19, survey costs were higher as final integration costs from the Nigerian SFD[®] Survey were incurred; and
- in Q3-19, NXT recognized \$1,021,532 of revenue for services rendered in connection with the Nigerian SFD[®] Survey, compared to \$10,954,618 in Q2-19.

Liquidity and Capital Resources

Going Concern

The Q1-21 condensed consolidated interim financial statements 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 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 interim financial statements have been issued.

The Company is taking further steps 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 positive cash flow from operations. The occurrence and timing of these events cannot be predicted with sufficient certainty.

The Q1-21 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 these 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, 2021 totaled \$2.15 million. Net working capital totaled \$1.51 million. See the information under the heading "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	Mar 31, 2021	Dec 31, 2020	Net Change	%
Current assets (current liabilities)				
Cash, cash equivalents and short-term investments	\$2,153,223	\$ 3,031,407	\$ (878,184)	(29)
Accounts receivable	702,789	965,548	(262,759)	(27)
Prepaid expenses	91,315	77,532	13,783	18
Accounts payable and accrued liabilities	(514,141)	(440,538)	(73,603)	(17)
Contract obligations	(126,209)	(127,507)	1,298	1
Current portion of lease obligation	(792,865)	(773,465)	(19,400)	(3)
Total Net Working Capital	1,514,112	2,732,977	(1,218,865)	(45)

NXT had no secured debt and had net working capital of \$1,514,112 as at March 31, 2021.

The decrease in net working capital at March 31, 2021 compared to December 31, 2020 was due to cash used in operating activities off-set to a degree by the receipt of payments on accounts receivable including \$130,850 from an SFD® data sale customer, \$67,429 in benefits under the SR&ED program and \$58,526 in benefits under the CERS program.

Accounts Payable

Accounts Payable	Mar 31, 2021	Dec 31, 2020	Net Change	%
Trade accounts payable	\$ (104,249)	\$ (62,872)	\$ (41,377)	(66)
Deferred advisor board payable	(23,664)	(23,908)	244	1
Accrued liabilities	(169,148)	(161,742)	(7,406)	(5)
Vacation pay accrued	(92,300)	(71,699)	(20,601)	(29)
RSU and ESP Plan Liability	(124,780)	(120,317)	(4,463)	(4)
Total Accounts Payable	(514,141)	(440,538)	(73,603)	(17)

Accounts payable increased by \$73,603 or 17%, as at March 31, 2021 compared to December 31, 2020 for the following reasons:

- trade accounts payable increased by \$41,377, or 66%, due primarily to the purchase of mapping licenses;
- accrued liabilities increased by \$7,406, or 5%, due to professional fee accruals;
- vacation pay accrued increased by \$20,601, or 29%, as employees typically take less vacation in Q1; and
- payroll related accruals increased by \$4,463 as accruals were made for the equity compensation plan withholding requirements.

Cash Flow

Cash Flow - from / (used in)	Q1-21	Q1-20
Operating activities	\$(883,320)	\$(599,190)
Financing activities	19,635	(11,158)
Investing activities	191,261	29,424
Effect of foreign exchange on cash	(14,499)	122,186
Net use of cash	(686,923)	(458,738)
Cash and cash equivalents, start of period	2,690,146	2,858,245
Cash and cash equivalents, end of period	2,003,223	2,399,507
Cash and cash equivalents	2,003,223	2,399,507
Short-term investments	150,000	3,843,212
Total Cash and Short-Term Investments, end of period	2,153,223	6,242,719

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	Q1-21	Q1-20
Net loss for the period	\$(1,643,551)	\$(1,332,301)
Total non-cash expense items	445,057	85,490
	(1,198,494)	(1,246,811)
Change in non-cash working capital balances	315,174	647,621
Total Cash used in Operating Activities	(883,320)	(599,190)

Operating cash flow decreased by \$284,130 in Q1-21 as compared to Q1-20 as cash received on accounts receivable were higher in Q1-20.

- Financing Activities	Q1-21	Q1-20
Proceeds from the employee share purchase plan	\$ 19,635	\$ -
Repayment of finance lease obligation	-	(11,158)
Total Cash from (used in) Financing Activities	19,635	(11,158)

In Q1-21, the financing activity was for employee contributions under the ESP Plan which began in Q4-20. Financing payments in Q1-20 were for payments on the finance lease for office equipment which was terminated in Q2-20.

Investing Activities	Q1-21	Q1-20
Purchase of property and equipment	\$ -	\$ -
Decrease in short-term investments	191,261	29,424
Total Cash from Investing Activities	191,261	29,424

Short-term investments decreased in Q1-21 and Q1-20 as the Company used investments in Guaranteed Investment Certificates to fund operations.

Contractual Obligations

The estimated minimum annual commitments for leases are as follows, as at March 31, 2021:

For the period ended December 31	Office Premises
April to December 2021	\$ 171,069
2022	228,091
2023	228,091
2024	228,091
2025	171,069
	1,026,411

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 (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 under the heading "*Liquidity and Capital Resources – Contractual Commitments*". 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 constant with discussions with the Landlord.

Transactions with Related Parties

One of the members of NXT's Board, Thomas Valentine, is a partner in the law firm Norton Rose Fulbright Canada LLP which provides legal advice to NXT. Legal fees incurred with Norton Rose Fulbright Canada LLP were as follows:

	Q1-21	Q1-20
Legal fees	\$ 17,380	\$ 67,513

Accounts payable and accrued liabilities includes a total of \$18,247 (\$1,570 as at December 31, 2020) payable to Norton Rose Fulbright Canada LLP. A company owned by a family member of an executive officer was contracted to provide design services to the Company for a total cost of US\$3,000.

As discussed under the section heading, ***Acquisition of Geothermal Right*** the Company acquired the Geothermal Right from its Chairman, President and Chief Executive Officer, Mr. Liszicasz in Q2-21. The Consideration payable in connection with the Acquisition is valued at approximately \$820,000, assuming all of the milestones are met.

Critical Accounting 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, the measurement of stock-based compensation expense, valuation of deferred income tax assets, and estimates for asset retirement obligations. Estimates and assumptions used are based upon management's best estimate as at the date of the 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. Descriptions of estimates and assumptions, the methodologies used to calculate such estimates and assumptions, and trends, commitments, events and uncertainties relevant to such estimates and assumptions, are substantially unchanged from those described in NXT's annual audited consolidated financial statements as at and for the year-ended December 31, 2020.

Changes in Accounting Policies

The condensed consolidated interim financial statements of NXT for Q1-21 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, 2020, except as described in Note 2, Significant Accounting Policies and Changes.

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 and leases. 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, 2021 and March 31, 2020, 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 11, 2021	March 31, 2021	December 31, 2020
Common Shares	64,534,018	64,494,356	64,437,790
Options	429,500	429,500	421,000
Deferred Share Units	37,354	37,354	37,354
Restricted Share Units	1,045,000	1,045,000	1,200,000
ESP Plan Shares	57,386	48,923	23,532
Total share capital and dilutive securities	66,103,258	66,055,133	66,119,676

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

NXT's Chief Executive Officer 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 security authority 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 engagement of external consultants and legal counsel as well.

The Responsible Officers concluded that, as at March 31, 2021, its ICFR are 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: (i) the implementation of controls with regards to the review procedures surrounding its disclosure; and (ii) 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 Q1-21.

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.