



# **NXT ENERGY SOLUTIONS INC.**

**Management's Discussion and Analysis**

**For the three and six month periods ended  
June 30, 2020**

## 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") in respect of the three and six month periods ended June 30, 2020, and should be reviewed in conjunction with the unaudited condensed consolidated interim financial statements and related notes in respect of the same. This MD&A provides comparative totals to the three and six month periods ended June 30, 2019, is based on information available as at August 13, 2020 unless otherwise stated, and has been approved by the Board of Directors of the Company (the "Board").

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

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

### Advisories

#### ***Forward-looking Information***

Certain statements in this MD&A constitute forward-looking information under applicable securities laws. These statements typically contain words such as "intends", "plans", "anticipates", "expects", "scheduled", "estimates", "believes", "forecasts" or other variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved and relate primarily to:

- estimates related to our future financial position and liquidity; and
- general business strategies and objectives.

This 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;
- the timing a receipt of payments on the accounts receivable;
- foreign currency exchange and interest rates; and
- general business, economic and market conditions (including global commodity prices).

These forward-looking statements are based on current expectations and are subject to a wide range of known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Known risks include, but are not limited to, risks related to:

- the impact of COVID-19;
- the ability of management to execute its business plan;
- health, safety and the environment (including risks related to COVID-19);
- the emergence of alternative competitive technologies;
- our ability to protect and maintain our intellectual property 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).

Although the Company has attempted to identify important factors and risks that could cause actual actions, events or results to differ materially from those described in the forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. 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.

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 law, NXT assumes no obligation to update forward-looking information should circumstances or the Company's estimates or opinions change. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements.

### ***Non-GAAP Measures***

NXT's accompanying consolidated financial statements are 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 meanings 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. Management of NXT uses this non-GAAP measure to improve its ability to assess liquidity at a point in time.

## **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 hydrocarbon exploration decisions concerning land commitments, data acquisition expenditures and prospect prioritization on areas with the greatest potential. SFD® is environmentally friendly and unaffected by ground security issues or difficult terrain and is the registered trademark of NXT Energy Solutions Inc. NXT Energy Solutions Inc. provides its clients with an effective and reliable method to reduce time, costs and risks related to exploration.

## Financial and Operational Highlights

Key financial and operational highlights for Q2-20 are summarized below.

- An additional SFD® acquisition system consisting of eight new sensors was built and tested during the quarter which includes four cascade devices. NXT now has four SFD® systems which increases our operational readiness and reliability.
- R&D work focused on improving interpretation algorithms to increase efficiency of the interpretation process and transform the SFD® data to align more with the presentation of results of seismic surveys in the geophysical industry.
- Partial repayment was received from Alberta Green Ventures Limited Partnership ("AGV") in respect of the previously disclosed loan arrangement whereby NXT loaned AGV US\$250,000 for the purpose of furthering shared objectives under the Co-operation Agreement (the "Loan Arrangement"). AGV repaid the balance of the amounts owing on July 3, 2020.
- Cash and short-term investments at June 30, 2020 were \$4.90 million.
- Survey revenues in Q2-20 and 2020 YTD were \$0.137 million.
- A net loss of \$1.48 million was recorded for Q2-20, including stock based compensation and amortization expense of \$0.45 million.
- A net loss of \$2.81 million was recorded for YTD 2020, including stock based compensation and amortization expense of \$0.92 million.
- Operating activities used \$1.10 million of cash during Q2-20 and \$1.70 million YTD 2020.
- Net loss per common share for Q2-20 was (\$0.02) basic and (0.02) diluted.
- Net loss per common share for YTD 2020 was (\$0.04) basic and (0.04) diluted.
- General and administrative costs for Q2-20 as compared to Q2-19 increased by \$0.04 million or 5%, mostly due to an increase in professional fees.
- General and administrative costs for YTD 2020 as compared to YTD 2019 increased by \$0.09 million or 5%, mostly due to an increase in travel in Q1-20 and an increase in professional fees.

## Discussion of Operations

### ***Covid-19 (2019-nCoV/COVID-19) Pandemic***

As of the date of these condensed consolidated interim financial statements the COVID-19 pandemic has not had a material effect on the operations of the Company. The Company has made provisions so employees can work safely in the office or from home, suspended all travel, followed all Alberta Services and Health Canada recommendations, and implemented hygiene and social distancing policies. NXT continues to communicate with employees and customers via available communication methods such as tele-conferences and on-line video conferencing. 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 condensed interim consolidated financial statements are subject to a higher degree of measurement uncertainty during this volatile period.

The Company is receiving the Canada Emergency Wage Subsidy ("CEWS") beginning with the April period. For the YTD 2020 period the Company has collected \$0.11 million in CEWS subsidy. The Company is not eligible for the Canada Emergency Business Account. Funds from the CEWS are being used to ensure staffing levels are maintained to continue to progress SFD® project discussions and marketing.

### **Note Receivable**

In September 2019, NXT entered into the Loan Arrangement and advanced US\$250,000 (the "Principal Amount") to AGV, as evidenced by, and governed in accordance with the terms of, a promissory note dated September 6, 2019. The purpose of the Loan Arrangement was to provide AGV with additional funds necessary to continue advancing the common objectives of NXT and AGV under the Co-operation Agreement. The Principal Amount was fully repaid by way of instalments throughout Q2-20 and subsequent to period end. US\$223,171 was paid in Q2-20 on the Principal Amount.

### **Summary of Operating Results**

	Q2-20	Q2-19	YTD 2020	YTD 2019
Survey revenue	\$ 136,566	\$10,954,617	\$ 136,566	\$ 10,954,617
Expenses:				
Survey	231,885	1,412,380	533,846	1,790,113
General and administrative	802,647	767,401	1,776,981	1,689,150
Stock-based compensation	7,525	3,775	29,190	7,550
Amortization	442,180	443,154	890,561	886,851
	1,484,237	2,626,710	3,230,578	4,373,664
Other Expenses (income):				
Interest (income) expense, net	(4,362)	3,916	(17,009)	7,116
Foreign exchange (gain) loss	135,990	234,244	(273,527)	240,350
Other expense	410	3,859	8,534	10,919
	132,038	242,019	(282,002)	258,385
Income (loss) before income taxes	(1,479,709)	8,085,888	(2,812,010)	6,332,568
Income tax expense	-	-	-	-
Net income (loss) for the period	(1,479,709)	8,085,888	(2,812,010)	6,322,568
Net income (loss) per share—basic	\$ (0.02)	\$ 0.12	\$(0.04)	\$ 0.09
Net income (loss) per share—diluted	\$ (0.02)	\$ 0.11	\$(0.04)	\$ 0.09

**Quarterly operating results.** Net loss for Q2-20 compared to Q2-19 increased by \$9,565,597, or \$0.14 per share-basic, primarily due to revenue in Q2-19 being significantly higher than in Q2-20 with the receipt of payment in connection with the SFD<sup>®</sup> survey completed in Nigeria during 2019 ("Nigerian SFD<sup>®</sup> Survey"). In Q2-20, revenue was earned on the recognition of the forfeited deposit from AGV, payable pursuant to the Co-operation Agreement. Survey costs were lower in Q2-20 versus Q2-19 as Q2-19 costs were direct costs incurred during the Nigerian SFD<sup>®</sup> Survey. General and administrative ("G&A") expenses increased by \$35,246, or 5%, primarily due to an increase in professional fees. Stock-based compensation expense ("SBCE") was higher in Q2-20 versus Q2-19 as a portion of director compensation was paid in deferred share units in Q2-20 compared to all cash in Q2-19. Interest (income) expense net changed \$8,278 versus Q2-19 as the Company had more cash and short-term investments in Q2-20. With respect to foreign exchange, the Canadian dollar strengthened versus the US dollar in both Q2-20 and Q2-19 resulting in foreign exchange losses on the Company's monetary assets held in US dollars at June 30, but larger accounts receivables in US dollars at June 30, 2019 resulted in a larger foreign exchange loss in Q2-19.

**Year-to-date operating results.** Net loss for YTD 2020 compared to YTD 2019 changed by \$9,134,578, or \$(0.13) per share-basic. YTD 2019 revenue was from the Nigerian SFD<sup>®</sup> Survey. In YTD 2020 revenue was earned on the recognition of the forfeited deposit from the Co-operation Agreement with AGV. Survey costs were lower in YTD 2020 versus YTD 2019 as YTD 2019 costs were direct costs incurred during the Nigerian SFD<sup>®</sup> Survey. G&A expenses increased by \$87,831, or 5%, primarily due to an increase in professional fees and in YTD 2020 a portion of the salary costs were allocated to Survey costs. SBCE were higher in YTD 2020 as a portion of director compensation was paid under the Deferred Share Unit Plan and the awarding of 30,000 fully vested stock options to a consultant. Interest (income) expense net changed \$24,125 versus YTD 2019 as the Company had larger cash and short-term investments in YTD 2020. For foreign exchange, the CDN\$ weaken versus the US dollar in YTD 2020 resulting in the foreign exchange gain. The CDN\$ strengthened versus the US dollar in YTD 2019 resulting in the foreign exchange loss in YTD 2019.

### Survey Expenses

Survey Expenses	Q2-20	Q2-19	Net change
Aircraft lease costs	\$ 111,258	\$ 99,704	\$ 11,554
Aircraft operations	120,122	201,901	(81,779)
Survey projects	505	1,110,775	(1,110,270)
Total survey expenses, net	231,885	1,412,380	(1,180,495)

Survey Expenses	YTD 2020	YTD 2019	Net change
Aircraft Lease Costs	\$213,854	\$198,144	\$15,710
Aircraft Operations	\$314,305	\$481,341	\$(167,036)
Survey projects	\$5,687	\$1,110,628	\$(1,104,941)
Total survey expenses, net	\$533,846	\$1,790,113	\$(1,256,267)

Survey expenses relate entirely to the direct survey costs, lease expenses and aircraft handling and maintenance costs, net of charter hire revenue. In Q2-20, aircraft operations were for aircraft handling

and maintenance costs. Fixed aircraft costs were lower in Q2-20 versus Q2-19 as maintenance was performed on the aircraft in Q2-19 after the Nigerian SFD® Survey. In Q2-20, less scheduled maintenance was required. Survey costs in Q2-19 were the direct costs of the Nigerian SFD® Survey.

In YTD 2020, aircraft operations were also for aircraft handling and maintenance costs. Fixed aircraft costs were lower in YTD 2020 versus YTD 2019 as maintenance was performed on the aircraft before and after the Nigerian SFD® Survey in YTD 2019. In YTD 2020, less scheduled maintenance was required. Survey costs in YTD 2019 were the direct costs of the Nigerian SFD® Survey.

The aircraft is available for charter to third parties through our aircraft manager when it is not being used by NXT. Any charter fees 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. 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**

<b>G&amp;A Expenses</b>	<b>Q2-20</b>	<b>Q2-19</b>	<b>Net change</b>	<b>%</b>
Salaries, benefits and consulting charges	\$ 333,711	\$327,258	\$6,453	2
Board and professional fees, public company costs	262,555	193,222	69,333	36
Premises and administrative overhead	206,650	224,674	(18,024)	(8)
Business development	(269)	22,247	(22,516)	(101)
<b>Total G&amp;A Expenses</b>	<b>802,647</b>	<b>767,401</b>	<b>35,246</b>	<b>5</b>

<b>G&amp;A Expenses</b>	<b>YTD 2020</b>	<b>YTD2019</b>	<b>Net change</b>	<b>%</b>
Salaries, benefits and consulting charges	\$772,738	\$802,653	\$(29,915)	(4)
Board and professional fees, public company costs	490,564	420,150	70,414	17
Premises and administrative overhead	382,292	402,787	(20,495)	(5)
Business development	131,387	63,560	67,827	107
<b>Total G&amp;A Expenses</b>	<b>1,776,981</b>	<b>1,689,150</b>	<b>87,831</b>	<b>5</b>

G&A expenses increased by \$35,246, or 5%, in Q2-20 compared to Q2-19 for the following reasons:

- salaries, benefits and consulting charges increased \$6,453, or 2%, due primarily to approximately \$150,000 of salary costs being allocated to survey costs in Q2-19, offset by one less headcount and receipt of the CEWS in Q2-20;
- board and professional fees and public company costs increased \$69,333, or 36%, due primarily to one additional board member and higher audit & legal fees;
- premises and administrative overhead decreased \$18,024, or 8%, due primarily to decreased costs related to reduced spending on computer and office expenses; and

- business development costs decreased \$22,516, or 101%, due primarily to the restrictions on travel from the COVID-19 epidemic and therefore switching discussion to tele-conferences and on-line video conferencing.

G&A expenses increased by \$87,831, or 5%, in YTD 2020 compared to YTD 2019 for the following reasons:

- salaries, benefits and consulting charges decreased \$29,915, or 4%, due primarily to approximately \$150,000 of salary costs being allocated to survey costs in YTD 2019, offset by one less headcount and receipt of the CEWS in YTD 2020;
- board and professional fees and public company costs increased \$70,414, or 17%, due primarily to lower building rent expenses offset by one additional board member, and higher audit & legal fees;
- premises and administrative overhead decreased \$20,495, or 5%, due primarily to decreased costs related to reduced spending on computer and office expenses;
- business development costs increased \$67,827, or 107%, due primarily to the negotiation of further African surveys in Q1-20; and
- Company resources were focused on the implementation of the Nigerian SFD® Survey in YTD 2019.

#### **Stock-based Compensation Expenses**

<b>Stock-based Compensation Expenses</b>	<b>Q2-20</b>	<b>Q2-19</b>	<b>Net change</b>	<b>%</b>
Stock Option Expense	\$ 3,775	\$3,775	\$ -	0
Deferred Share Units	3,750	-	3,750	100
<b>Total SBCE</b>	<b>7,525</b>	<b>3,775</b>	<b>3,750</b>	<b>99</b>

<b>Other Expenses</b>	<b>YTD 2020</b>	<b>YTD 2019</b>	<b>Net change</b>	<b>%</b>
Stock Option Expense	\$ 21,690	\$7,550	\$ 14,140	187
Deferred Share Units	7,500	-	7,500	100
<b>Total SBCE</b>	<b>29,190</b>	<b>7,550</b>	<b>21,640</b>	<b>287</b>

SBCE varies in any given quarter or year as it is a function of several factors including the number of stock options issued in the period and the period of amortization (based on the term of the contract and/or number of years for full vesting of the options, 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.

SBCE in Q2-20 was higher compared to Q2-19 by \$3,750. The increase in Q2-20 is the result of a portion of director compensation being paid in deferred share units.



SBCE in YTD 2020 was higher compared to YTD 2019 by \$21,640. The increase in Q2-20 is the result of a portion of director compensation being paid in deferred share units, and the awarding of 30,000 fully vested stock options to a consultant.

On July 17, 2020, the Board approved and adopted, subject to approval by the Toronto Stock Exchange (the "TSX") and the shareholders of the Company, a new Employee Share Purchase Plan (the "ESP Plan"). 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, and 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. No Common Shares have been, and no Common Shares will be, issued from treasury under the ESP Plan prior to Shareholders approving the ESP Plan. Further details on the ESP Plan can be found in the 2020 Management Information Circular.

### **Other Expenses**

<b>Other Expenses</b>	<b>Q2-20</b>	<b>Q2-19</b>	<b>Net change</b>	<b>%</b>
Interest (income) expense, net	\$ (4,362)	\$ 3,916	\$ (8,278)	(211)
Foreign exchange loss	135,990	234,244	(98,254)	(42)
IP and other	410	3,859	(3,449)	(89)
<b>Total Other Expenses, net</b>	<b>132,038</b>	<b>242,019</b>	<b>(109,981)</b>	<b>(45)</b>

<b>Other Expenses</b>	<b>YTD 2020</b>	<b>YTD 2019</b>	<b>Net change</b>	<b>%</b>
Interest (Income) expense, net	\$(17,009)	\$7,116	\$(24,125)	(339)
Foreign exchange loss (gain)	(273,527)	240,350	(513,877)	(214)
IP and other	8,534	10,919	(2,385)	(22)
<b>Total Other Expenses</b>	<b>(282,002)</b>	<b>258,385</b>	<b>(540,387)</b>	<b>(209)</b>

*Interest (income) expense, net.* This category of other expenses includes interest income earned on short-term investments netted by interest expense from financial lease obligations. Q2-20 interest (income) expense net changed \$8,278 versus Q2-19 as the Company had more than double the cash and short-term investments in Q2-20 and also locked in guaranteed investment certificates at an overall higher average interest rates.

*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 June 30, 2020, 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 June 30, 2020, the CDN\$ weakened as compared to the US\$ and as compared to the end of Q2-19 resulting in an unrealized foreign exchange gain for the quarter. The Company does not currently enter into hedging contracts, but uses 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, R&D activity related to the SFD® technology.

In Q2-20 and Q2-19, the Company's IP and other expenses related mostly to costs associated with the maintaining patents.

Amortization Expenses	Q2-20	Q2-19	Net change	%
Property and equipment	\$ 20,996	\$ 21,970	\$ (974)	(4)
Intellectual property	421,184	421,184	-	-
Total Amortization Expenses	442,180	443,154	(974)	(0)

Amortization Expense	YTD 2020	YTD 2019	Net change	%
Property and equipment	\$48,194	\$44,484	3710	8
Intellectual property	842,367	842,367	-	-
Total Amortization Expenses	890,561	886,851	3710	0

*Property and equipment and related amortization expense.* Property and equipment amortization was higher in YTD 2020 compared to YTD 2019 due to the Company acquiring and installing in its aircraft a new transponder technology known as ADS-B in Q3-19. The U.S. Federal Aviation Administration and European Aviation Safety Agency mandated that all aircraft flying in designated controlled airspaces must be equipped with ADS-B by January 1, 2020 (US airspace) and June 7, 2020 (European airspace). Total costs for installing the ADS-B was approximately \$208,000. This amortization was partially offset 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 tests of potential impairment of the recorded net book value. No impairments were recognized in Q2-20, Q2-19, YTD 2020 or YTD 2019.

*Income tax expense.* There was no income tax expense in Q2-20, Q2-19, YTD 2020 or YTD 2019.

### **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 & 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<sup>®</sup> system can be used as a focusing tool for seismic. With a SFD<sup>®</sup> 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. A SFD<sup>®</sup> survey deployed first can provide necessary information to target a seismic program over a limited area of locations selected by SFD<sup>®</sup>. 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.

*Exchange Rates.* Revenues and costs incurred in currencies other than Canadian dollars exposes us to exchange rate fluctuations between the Canadian dollar and foreign currencies. In addition, exchange rate changes impact the Canadian equivalent carrying balances for our assets and liabilities, and for foreign currency denominated monetary assets (such as cash and cash equivalents), the impact of changes in exchange rates is recorded in net earnings as a foreign exchange gain or loss.

*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](http://www.nxtenergy.com) and on SEDAR at [www.sedar.com](http://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.

	Q2-20	Q1-20	Q4-19	Q3-19
Survey revenue	\$ 136,566	\$ -	\$ -	\$ 1,021,532
Net income (loss)	(1,479,709)	(1,332,301)	(1,775,287)	(774,373)
Income (loss) per share – basic	\$ (0.02)	\$ (0.02)	\$ (0.03)	\$ (0.01)
Income (loss) per share – diluted	\$ (0.02)	\$ (0.02)	\$ (0.03)	\$ (0.01)

	Q2-19	Q1-19	Q4-18	Q3-18
Survey revenue	\$ 10,954,617	\$ -	\$ -	\$ -
Net income (loss)	8,085,888	(1,763,320)	(1,392,716)	(1,660,031)
Income (loss) per share – basic	\$ 0.12	\$ (0.03)	\$ (0.02)	\$ (0.02)
Income (loss) per share – diluted	\$ 0.11	\$ (0.03)	\$ (0.02)	\$ (0.02)

During Q2-20, revenue was earned on the recognition of the forfeited deposit from AGV, payable pursuant to the Co-operation Agreement. In Q2-19 and Q3-19, revenues were earned from the Nigerian SFD® survey. There were no revenues in the other five quarters. Excluding Q2-19 and Q3-19, the Company incurred net losses in each of the other quarters 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 Q2-20, 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 exchange loss partially offsetting the Q1-20 exchange gain described next;
- in Q1-20, the Company incurred a \$409,517 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 SBCE was lower as most outstanding options were fully vested;
- in Q3-19, NXT recognized \$1,021,532 of revenue for services rendered in connection with the Nigerian SFD® Survey, compared to \$10,954,617 in Q2-19;
- in Q1-19, survey costs were higher due to scheduled maintenance on the aircraft and significant legal and contract negotiation costs in preparing for the Nigerian SFD® Survey;
- in Q4-18, SBCE was lower by \$283,811 as unvested options were forfeited. In addition, G&A expenses decreased \$156,271 for two reasons: (i) business development decreased as most of

the business development work was centered in Calgary supporting the Nigerian SFD® Survey negotiations; and (ii) there was a decrease in public company costs as the previous quarter had significant costs related to reviewing equity financing options (offsetting the decreases in SBCE and G&A expenses was an increase of \$44,010 in survey expenses as NXT's aircraft incurred a scheduled major maintenance in December 2018); and

- in Q3-18, a gain of \$185,661 was recognized on the extinguishment of a liability from 2005 that was no longer payable, and interest income of \$26,171 was earned on cash received from equity financings.

## Liquidity and Capital Resources

### *Future Operations*

The consolidated financial statements for Q2-20 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.

Given the Company's current cash position, the anticipated collection of all outstanding accounts receivable, and continued cost reduction efforts described below, the Company expects to meet all of its obligations for the 12 month period beyond the date that these financial statements have been issued.

The Company is taking further steps to reduce costs which includes the reduction of payroll and other general and administrative 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 the 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 contracts and obtaining financing 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 convert these opportunities into successful contracts and to continue to attract new client projects and 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 certainty.

The events described in the preceding paragraphs highlight that there is considerable risk around the Company's ability to address these uncertainties about NXT's ability to continue as a going concern.

NXT's cash and cash equivalents plus short-term investments at June 30, 2020 totaled \$4.90 million. Net working capital totaled \$5.05 million.

As NXT is operating on a going concern basis, NXT's short-term ability to generate sufficient cash depends on the success of signing contracts and receiving advance payments pursuant to the terms of such agreements. NXT's longer-term success remains dependent upon our ability to continue to attract new client projects and expand the revenue base to a level sufficient to exceed G&A expenses and generate

excess net cash flow from operations. Proceeds from past equity financings have been used to pursue, close and implement commercial transactions currently in negotiation, develop additional revenue streams including multi-client data sales and strategic partnerships and for general corporate and net working capital purposes.

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***

<b>Net Working Capital</b>	<b>June 30, 2020</b>	<b>Dec 31, 2019</b>	<b>Net Change</b>	<b>%</b>
<b>Current assets (current liabilities)</b>				
Cash, cash equivalents and short-term investments	\$4,902,930	\$6,639,757	\$(1,736,827)	(26)
Accounts receivable	852,283	1,384,315	(532,032)	(38)
Note receivable	36,639	324,700	(288,061)	(89)
Prepaid expenses and deposits	215,928	97,132	118,796	122
Accounts payable and accrued liabilities	(187,729)	(448,928)	261,199	58
Contract obligations	-	(131,386)	131,386	100
Current portion of lease obligation	(733,789)	(736,408)	2,619	0
<b>Total Net Working Capital</b>	<b>5,086,262</b>	<b>7,129,182</b>	<b>(2,042,920)</b>	<b>(29)</b>

NXT had no secured debt and had net working capital of \$5,086,262 as at June 30, 2020.

The decrease in net working capital at June 30, 2020 versus December 31, 2019 was due to operating activities offset by a payment of US\$466,000 received from the 2019 Nigerian SFD® Survey and partial repayment of the note receivable under the Loan Arrangement.

## Accounts Payable

Accounts Payable	June 30, 2020	Dec 31, 2019	Net Change	%
Trade accounts payable	\$(16,351)	\$(181,790)	\$165,439	(91)
Deferred director and advisor payable	(25,606)	(24,352)	(1,254)	5
Accrued liabilities	(104,434)	(136,257)	31,823	(23)
Vacation pay accrued	(41,338)	(106,529)	65,191	(61)
<b>Total Accounts Payable</b>	<b>(187,729)</b>	<b>(448,928)</b>	<b>261,199</b>	<b>(58)</b>

Accounts payable decreased by \$261,199 or 58%, at June 30, 2020 compared to December 31, 2019 for the following reasons:

- trade accounts payable decreased by \$165,439, or 91%, due primarily to the payment of accrued professional fees;
- deferred director and advisor fees increased by \$1,254, or 5%, due to exchange rate fluctuations as the payable amount is in US\$;
- accrued liabilities decreased by \$31,823, or 23%, due to timing of invoice receipts; and
- vacation pay accrued decreased by \$65,191 or 61%, as employees' vacation payables were paid.

The overall net changes in cash balances in each of the periods 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:

## Cash Flow

Cash Flow - from / (used in)	Q2-20	Q2-19	YTD 2020	YTD 2019
Operating activities	\$(1,097,591)	\$(389,631)	\$(1,696,781)	\$(1,266,256)
Financing activities	(31,357)	(10,554)	(42,515)	(20,931)
Investing activities	834,302	900,000	863,726	2,100,000
Effect of foreign exchange changes on cash	(159,499)	5,360	(37,313)	4,006
Net source (use) of cash	(454,145)	505,175	(912,883)	816,819
Cash and cash equivalents, start of period	2,399,507	651,176	2,858,245	339,532
Cash and cash equivalents, end of period	1,945,362	1,156,351	1,945,362	1,156,351
Cash and cash equivalents	1,945,362	1,156,351	1,945,362	1,156,351
Short-term investments	2,957,568	1,800,000	2,957,568	1,800,000
<b>Total Cash and Short-Term Investments</b>	<b>4,902,930</b>	<b>2,956,351</b>	<b>4,902,930</b>	<b>2,956,351</b>

Operating Activities	Q2-20	Q2-19	YTD 2020	YTD 2019
Net income (loss) for the period	\$(1,479,709)	\$8,085,888	\$(2,812,010)	\$6,322,568
Total non-cash expense items & ARO liabilities settled	678,987	617,379	764,477	1,030,002
	(800,722)	8,703,267	(2,047,533)	7,356,570
Change in non-cash working capital balances	(296,869)	(9,092,898)	350,752	(8,618,826)
Total Cash from (used in) Operating Activities	(1,097,591)	(389,631)	(1,696,781)	(1,266,256)

Operating cash flow decreased by \$707,960 in Q2-20 as compared to Q2-19 because of the initial milestone payments received from the Nigerian SFD® Survey in Q2-19.

Operating cash flow decreased by \$430,525 in YTD 2020 as compared to YTD 2019 because of the initial milestone payments received from the Nigerian SFD® Survey in YTD 2019 were larger than the US\$466,000 payment received in Q1-20.

Financing Activities	Q2-20	Q2-19	YTD 2020	YTD 2019
Repayment of capital lease obligation	(31,357)	(10,554)	(42,515)	(20,931)
Total Cash used in Financing Activities	(31,357)	(10,554)	(42,515)	(20,931)

In Q2-20, the Company terminated the finance lease for office equipment with a final payment of approximately \$20,000. Financing payments in both YTD 2020 and YTD 2019 were for payments on the finance lease for office equipment.

Investing Activities	Q2-20	Q2-19	YTD 2020	YTD 2019
Decrease in short-term investments	834,302	900,000	863,726	2,100,000
Total Cash from Investing Activities	834,302	900,000	863,726	2,100,000

Short-term investments in all periods decreased as the Company used investments in Guaranteed Investment Certificates to fund operations.



## Contractual Commitments

The estimated minimum annual contractual commitments are as follows, as at June 30, 2020:

For the period ended December 31	Office Premises
July to December 2020	\$ 111,106
2021	222,501
2022	222,501
2023	222,501
2024	222,501
	1,001,110
2025	166,876
	1,167,986

## 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

In addition to the related party transactions discussed elsewhere herein (i.e. the Loan Arrangement), 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:

	For the three-month period ended June 30		For the six-month period ended June 30	
	2020	2019	2020	2019
Legal Fees	\$80,204	\$57,160	\$147,717	\$97,149

Accounts payable and accrued liabilities includes a total of \$27,387 (\$146,197 as at December 31, 2019) payable to Norton Rose Fulbright Canada LLP.

## Critical Accounting Estimates

The key elements 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, 2019.

## Changes in Accounting Policies

### ***Measurement of Credit Losses on Financial Instruments***

In June 2016, the FASB issued new guidance that changes how entities measure credit losses for most financial assets and certain other financial instruments that are not measured at fair value through net income. The new guidance amends the impairment model of financial instruments, basing it on expected losses rather than incurred losses. These expected credit losses will be recognized as an allowance rather than as a direct write-down of the amortized cost basis. The new guidance was effective January 1, 2020 and was applied using a modified retrospective approach. The adoption of this new guidance did not have a material impact on the Company's consolidated financial statements.

### ***Government Grants***

Government grants are recognized when there is reasonable assurance that the grant will be received, and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as an expense reduction in the period in which the costs are incurred. Where the grant relates to an asset, it is recognized as a reduction to the net book value of the related asset and then subsequently in net loss over the expected useful life of the related asset through lower charges to depletion, depreciation and impairment. During the three months ended June 30, 2020, the Company received government grants of \$0.11 million through the Canada Emergency Wage Subsidy ("CEWS"). The grants were recognized as a reduction to general and administrative of \$0.11 million (as at June 30, 2019 - \$nil).

## Financial Instruments

The Company's non-derivative financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, notes 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 June 30, 2020 and December 31, 2019, 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

	August 13, 2020	June 30, 2020	December 31, 2019
Common Shares	64,406,891	64,406,891	64,406,891
Stock options	932,600	932,600	1,169,500
Deferred Share Units	24,551	24,551	-
<b>Total Share Capital and Dilutive Securities</b>	<b>65,364,042</b>	<b>65,364,042</b>	<b>65,576,391</b>

### 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 quarterly and 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 an evaluation of 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 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 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 for quality assurance.

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 June 30, 2020, 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.

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](http://www.nxtenergy.com) and on SEDAR at [www.sedar.com](http://www.sedar.com).