

NXT ENERGY SOLUTIONS INC.

Management's Discussion and Analysis

For the three and nine month periods ended September 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 nine month periods ended September 30, 2020, and should be reviewed in conjunction with the unaudited condensed consolidated interim financial statements and related notes in respect of the same period. This MD&A provides comparative totals for the three and nine month periods ended September 30, 2019, is based on information available as at November 16, 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 of 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 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 Q3-20 are summarized below.

- 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");
- Cash and short-term investments at September 30, 2020 were \$4.06 million;
- Survey revenues in Q3-20 were nil and 2020 YTD were \$0.137 million;
- A net loss of \$1.50 million was recorded for Q3-20, including stock based compensation and amortization expense of \$0.48 million;
- A net loss of \$4.31 million was recorded for YTD 2020, including stock based compensation and amortization expense of \$1.40 million;
- Cash flow used in operating activities were \$0.83 million of cash during Q3-20 and \$2.53 million YTD 2020;
- Net loss per common share for Q3-20 was (\$0.02) basic and diluted;
- Net loss per common share for YTD 2020 was (\$0.07) basic and diluted;
- General and administrative costs for Q3-20 as compared to Q3-19 decreased by \$0.17 million or 20%, mostly due to the Canada Emergency Wage Subsidy ("CEWS") of \$0.12 million and the Scientific Research and Experimental Development Tax Credit ("SR&ED") of \$0.07 million; and
- General and administrative costs for YTD 2020 as compared to YTD 2019 decreased by \$0.09 million or 3%, due primarily to the CEWS of \$0.23 million and the SR&ED of \$0.7 million, one less headcount in the first half of 2020, partially offset by salary costs being allocated to survey costs in YTD 2019.

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 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, suspended all travel, followed all Alberta Services and Health Canada recommendations, and implemented hygiene and physical distancing policies. NXT continues to communicate with 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 CEWS beginning with the April period. For the YTD 2020 period the Company has collected \$0.23 million in CEWS subsidy. Funds from the CEWS are being used to ensure staffing levels are maintained to continue to progress SFD[®] project discussions and marketing.

Note Receivable

On September 6, 2019, NXT and Alberta Green Ventures Limited Partnership ("AGV") entered into a loan arrangement whereby NXT loaned to AGV US\$250,000 for the purpose of providing AGV with additional funds necessary to continue advancing the common objectives of the parties under the Co-operation Agreement and the Sales Representative Agreement. The note receivable was fully collected in the period.

		Q3-20		Q3-19	YTD 2	2020	,	YTD 2019
Survey revenue	\$	-	\$2	1,021,532	\$ 136	,566	\$ 11	,976,149
Expenses:						÷		
Survey		253,188		512,599	787	,034	2	,302,712
General and administrative		707,640		881,716	2,484	,621	2	,570,866
Stock-based compensation		35,384		64,983	64	,574		72,533
Amortization		445,123		445,315	1,335	,684	1	,332,166
	1,	441,335	-	1,904,613	4,671	,913	6	,278,277
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Other Expenses (income):								
Interest (income) expense, net		(36)		(9,348)	(17,	045)		(2,232)
Foreign exchange (gain) loss		60,417		(106,255)	(213,	110)		134,095
Other expense		740		6,895	9	,274		17,814
		61,121		(108,708)	(220,	881)		149,677
Net income (loss) for the period	\$ (1,5	502,456)	\$	(774,373)	(4,314,4	466)	\$ 5	,548,195
Net income (loss) per share-basic	\$	(0.02)	\$	(0.01)	\$(0	.07)	\$	0.08
Net income (loss) per share-diluted	\$	(0.02)	\$	(0.01)	\$ (0	0.07)	\$	0.08

Summary of Operating Results

<u>Quarterly operating results</u>. Net loss for Q3-20 compared to Q3-19 increased by \$728,083, or \$0.01 per share-basic, primarily due to revenue from the SFD[®] survey completed in Nigeria during 2019 ("Nigerian SFD[®] Survey") being recorded in Q3-19. This was partially offset by recognition the CEWS and the SR&ED and in Q3-20 thereby reducing General and administrative ("G&A") by 20%. Interest (income) expense net decreased in Q3-20 by \$9,312 versus Q3-19 as interest rates have significantly decreased versus the prior quarter. With respect to foreign exchange, at September 30, 2020, the CDN dollar strengthened as compared to the US dollar and as compared to the end of Q2-20 resulting in a foreign exchange loss for the quarter.

<u>Year-to-date operating results</u>. Net loss for YTD 2020 compared to YTD 2019 changed by \$9,862,661, or \$(0.15) per share-basic. YTD 2019 revenue was from the Nigerian SFD[®] Survey. In YTD 2020 revenue was

MD&A for the three and nine month periods ended September 30, 2020

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® Survey. G&A expenses decreased by \$86,245, or 3% as salaries, benefits and consulting charges decreased 15%, due primarily to the CEWS and the SR&ED being recorded, one less headcount in the first half of 2020, offset by partially by \$178,774 of salary costs being allocated to survey costs in YTD 2019. This offset board and professional fees and public company costs increasing 15%, due primarily to consultant fees to process the SR&ED, one additional board member, and higher audit & legal fees. Interest (income) expense increased \$14,813 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	Q3-20	Q3-19	Net change
Aircraft lease costs	\$ 111,834	\$ 100,843	\$ 10,991
Aircraft operations	141,354	210,630	(69,276)
Survey projects	-	201,126	(201,126)
Total survey expenses, net	253,188	512,599	(259,411)

Survey Expenses	YTD 2020	YTD 2019	Net change
Aircraft lease Costs	\$325,688	\$298,987	\$ 26,701
Aircraft operations	461,346	691,971	(230,625)
Survey projects	-	1,311,754	(1,311,754)
Total survey expenses, net	787,034	2,302,712	(1,515,678)

Survey expenses relate entirely to the direct survey costs, lease expenses and aircraft handling and maintenance costs, net of charter hire revenue. In Q3-20, aircraft operations were for aircraft handling and maintenance costs. Fixed aircraft costs were lower in Q3-20 versus Q3-19 as maintenance was performed on the aircraft in Q3-19 after the Nigerian SFD[®] Survey. In Q3-20, less scheduled maintenance was required. Survey costs in Q3-19 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

G&A Expenses	Q3-20	Q3-19	Net change	%
Salaries, benefits and consulting charges	\$ 241,566	\$390,294	\$(148,728)	(38)
Board and professional fees, public company costs	261,915	231,464	30,451	13
Premises and administrative overhead	199,312	204,178	(4,866)	(2)
Business development	4,847	55,780	(50,933)	(91)
Total G&A Expenses	707,640	881,716	(174,076)	(20)

G&A Expenses	YTD 2020	YTD2019	Net change	%
Salaries, benefits and consulting charges	\$1,014,304	\$1,192,947	\$(178,643)	(15)
Board and professional fees, public company costs	752,479	651,614	100,865	15
Premises and administrative overhead	581,604	606,965	(25,361)	(4)
Business development	136,234	119,340	16,894	14
Total G&A Expenses	2,484,621	2,570,866	(86,245)	(3)

G&A expenses decreased by \$174,076, or 20%, in Q3-20 compared to Q3-19 for the following reasons:

- salaries, benefits and consulting charges decreased \$148,728, or 38%, due primarily due to recording the CEWS and the SR&ED;
- board and professional fees and public company costs increased \$30,451, or 13%, due primarily to consultant fees to process the SR&ED;
- premises and administrative overhead decreased \$4,866, or 2%, due primarily to decreased costs related to reduced office expenses; and
- business development costs decreased \$50,933, or 91%, 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 decreased by \$86,245, or 3%, in YTD 2020 compared to YTD 2019 for the following reasons:

- salaries, benefits and consulting charges decreased \$178,643, or 15%, due primarily to the CEWS and the SR&ED, one less headcount in the first half of 2020, offset by partially by \$178,774 of salary costs being allocated to survey costs in YTD 2019;
- board and professional fees and public company costs increased \$100,865, or 15%, due primarily to consultant fees to process the SR&ED, one additional board member, and higher audit & legal fees;
- premises and administrative overhead decreased \$25,361, or 4%, due primarily to decreased costs related to reduced spending on office expenses and building common area costs; and

 business development costs increased \$16,894, or 14%, due primarily to the negotiation of further African surveys in Q1-20. During YTD Company resources were focused on the implementation of the Nigerian SFD[®] Survey.

Stock-based Compensation Expenses

Stock-based Compensation Expenses	Q3-20		Q3-19		et change	%
Stock Option Expense	\$ 11,274	\$	32,484	\$	(21,210)	(65)
Deferred Share Units	3,750		-		3,750	100
Restricted Stock Units	20,360		32,499		(12,139)	(37)
Total SBCE	35 <i>,</i> 384		64,983		(29,599)	(46)

Other Expenses	YTD 2020	YTD 2019	Net change	%
Stock Option Expense	\$ 32,964	\$ 40,034	\$ (7,070)	(18)
Deferred Share Units	11,250	-	11,250	100
Restricted Stock Units	20,360	32,499	(12,139)	(37)
Total SBCE	64,574	72,533	(7,959)	(11)

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 YTD 2020 was lower compared to YTD as 100,000 options were awarded to a distributor in Q3-19. These increases were partially offset by the implementation of Deferred Share Unit plan during YTD 2020.

On August 25, 2020, shareholders of the Company and subsequently the Toronto Stock Exchange (the "TSX") approved, 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. As of the date of this MD&A, no Common Shares have been, issued from treasury under the ESP Plan, however the Company expects to issue Common Shares under the ESP during Q4-20. Further details on the ESP Plan can be found in the 2020 Management Information Circular.

Other Expenses

Other Expenses	Q3-20	Q3-19	Net change	%
Interest (income) expense, net	\$ (36)	\$ (9,348)	\$ 9,312	(100)
Foreign exchange loss (gain)	60,417	(106,255)	166,672	(157)
IP and other	740	6,895	(6,155)	(89)
Total Other Expenses, net	61,121	(108,708)	169,829	(156)

Other Expenses	YTD 2020	YTD 2019	Net change	%
Interest (Income) expense, net	\$(17,045)	\$(2,232)	\$(14,813)	664
Foreign exchange loss (gain)	(213,110)	134,095	(347,205)	(259)
IP and other	9,274	17,814	(8,540)	(48)
Total Other Expenses	(220,881)	149,677	(370,558)	(248)

<u>Interest (income) expense, net</u>. This category of other expenses includes interest income earned on shortterm investments netted by interest expense from financial lease obligations. Q3-20 interest (income) expense net decreased \$9,312 versus Q3-19 as interest rates have significantly decreased versus the prior quarter. YTD 2020 interest (income) expense net increased \$14,813 versus YTD 2019 as the Company had increased short-term investments over comparative periods 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 September 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 September 30, 2020, the CDN\$ strengthened as compared to the US\$ at June 30, 2020, but weakened versus the December 31, 2019 US\$, resulting in the corresponding foreign exchange loss and gain in each relative period.

At September 30, 2019, the CDN dollar weakened as compared to the US dollar and as compared to the end of Q2-19 resulting in a foreign exchange gain for the quarter. At June 30, 2019, the Company had a significant foreign exchange loss which was the result of the CDN dollar strengthening compared with May 2019 when several of the US dollar assets were initially recorded.

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.

<u>IP and other</u>. This category of other expenses primarily includes costs related to IP filings, R&D activity related to the SFD[®] technology.

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

Amortization Expenses	-	Q3-20	Q3-19	Net change	%
Property and equipment	\$	23,939	\$ 24,131	\$ (192)	(1)
Intellectual property		421,184	421,184	-	-
Total Amortization Expenses		445,123	445,315	(192)	0
Amortization Expense	-	YTD 2020	VTD 2019	Net change	%

Amortization Expense	YID 2020	YID 2019	Net change	%
Property and equipment	\$ 72,134	\$68,616	3,518	5
Intellectual property	1,263,550	1,263,550	-	-
Total Amortization Expenses	1,335,684	1,332,166	3,518	0

<u>Property and equipment and related amortization expense</u>. 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.

<u>Intellectual property and related amortization expense</u>. 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 Q3-20, Q3-19, YTD 2020 or YTD 2019.

Income tax expense. There was no income tax expense in Q3-20, Q3-19, 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.

NXT Energy Solutions Inc. MD&A for the three and nine month periods ended September 30, 2020 The SFD[®] system can be used as a focusing tool for seismic. With a 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. A 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.

<u>Exchange Rates</u>. 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.

<u>Tax Rates</u>. 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.

		Q3-20		Q2-20	-	Q1-20		Q4-19
Survey revenue	\$	-	\$	136,566	\$	-	\$	-
Net loss	(1,	502,456)	(1	,479,709)	(1,3	32,301)	(1,7	75,287)
Loss per share – basic	\$	(0.02)	\$	(0.02)	\$	(0.02)	\$	(0.03)
Loss per share – diluted	\$	(0.02)	\$	(0.02)	\$	(0.02)	\$	(0.03)
		Q3-19		Q2-19		Q1-19		Q4-18
Survey revenue	\$ 1	,021,532	\$1	0,954,617	\$	-	\$	-
Net income (loss)	(`	774,373)	8,085,888		(1,763,320)		(1,3	92,716)
Income (loss) per share – basic	\$	(0.01)		\$ 0.12	\$	(0.03)	\$	(0.02)
Income (loss) per share – diluted	\$	(0.01)		\$ 0.11	\$	(0.03)	\$	(0.02)

During Q3-20 the Company received the CEWS and the SR&ED which reduced costs. During Q2-20, revenue was earned on the recognition of the forfeited deposit from AGV, payable pursuant to the Cooperation 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 Q3-20, costs were reduced primarily to the CEWS and the SR&ED;
- 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, shortterm 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 negation 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

Liquidity and Capital Resources

Future Operations

These condensed consolidated interim financial statements for Q3-20 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.

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 financial statements have been issued.

The Company's current cash position is not expected to be sufficient to meet the Company's 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 include payroll, 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 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 condensed consolidated financial interim statements do not reflect adjustments that would be necessary if the going concern basis was not appropriate. If the going concern basis were not appropriate for these consolidated 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 September 30, 2020 totaled \$4.06 million. Net working capital totaled \$3.99 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.

	Sept 30,	Dec 31,		
Net Working Capital	2020	2019	Net Change	%
Current assets (current liabilities)				
Cash, cash equivalents and short-term				
investments	\$4,055,884	\$6,639,757	\$(2,583,873)	(39)
Accounts receivable	881,523	1,384,315	(502,792)	(36)
Note receivable	-	324,700	(324,700)	(100)
Prepaid expenses and deposits	147,072	97,132	49,940	51
Accounts payable and accrued liabilities	(338,705)	(448,928)	110,223	(25)
Contract obligations	-	(131,386)	131,386	(100)
Current portion of lease obligation	(754,709)	(736,408)	(18,301)	2
Total Net Working Capital	3,991,065	7,129,182	(3,138,117)	(44)

Net Working Capital

NXT had no secured debt and had net working capital of \$3,991,065 as at September 30, 2020.

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

Accounts Payable

Accounts Payable	Sept 30, 2020	Dec 31, 2019	Net Change	%
Trade accounts payable	\$(42,060)	\$(181,790)	\$139,730	(77)
Deferred director and advisor payable	(25,095)	(24,352)	(743)	3
Accrued liabilities	(195,119)	(136,257)	(58,862)	43
Payroll related	(76,431)	(106,529)	30,098	(28)
Total Accounts Payable	(338,705)	(448,928)	110,223	(25)

Accounts payable decreased by \$110,223 or 25%, at September 30, 2020 compared to December 31, 2019 for the following reasons:

- trade accounts payable decreased by \$139,730, or 77%, due primarily to the payment of accrued professional fees;
- deferred director and advisor fees increased by \$743, or 3%, due to exchange rate fluctuations as the payable amount is in US\$;
- accrued liabilities increased by \$58,862, or 43%, due to timing of professional fee invoice receipts; and
- payroll related accruals decreased by \$30,098 or 28%, as employees' vacation payables were paid, offset by an accrual for Restricted Stock Units.

Cash Flow

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 - from / (used in)	Q3-20	Q3-19	YTD 2020	YTD 2019
Operating activities	\$(829,150)	\$3,947,524	\$(2,525,930)	\$2,679,914
Financing activities	-	(10,735)	(42,515)	(31,666)
Investing activities	1,523,724	(2,531,163)	2,387,450	(431,163)
Effect of foreign exchange changes on cash	7,438	103,688	(29,875)	109,048
Net source (use) of cash	702,013	1,509,314	(210,870)	2,326,133
Cash and cash equivalents, start of period	1,945,362	1,156,351	2,858,245	339,532
Cash and cash equivalents, end of period	2,647,375	2,665,665	2,647,375	2,665,665
Cash and cash equivalents	2,647,375	2,665,665	2,647,375	2,665,665
Short-term investments	1,408,509	4,059,721	1,408,509	4,059,721
Total Cash and Short-Term Investments	4,055,884	6,725,386	4,055,884	6,725,386

Operating Activities	Q3-20	Q3-19	YTD 2020	YTD 2019
Net income (loss) for the period	\$(1,502,456)	\$(774,373)	(\$4,314,466)	\$5,548,195
Total non-cash expense items & ARO liabilities settled	488,188	256,090	1,252,666	1,284,738
	(1,014,268)	(518,283)	(3,061,800)	6,832,933
Change in non-cash working capital balances	185,118	4,465,807	535,870	(4,153,019)
Total Cash from (used in) Operating Activities	(829,150)	3,947,524	(2,525,930)	2,679,914

Operating cash flow decreased by \$4,776,674 in Q3-20 as compared to Q3-19 because of the milestone payments received from the Nigerian SFD[®] Survey in Q3-19.

Operating cash flow decreased by \$5,205,844 in YTD 2020 as compared to YTD 2019 because of the milestone payments received from the Nigerian SFD[®] Survey in YTD 2019 were larger than the payment received in Q1-20.

Financing Activities	Q3-20	Q3-19	YTD 2020	YTD 2019
Repayment of capital lease obligation	-	(10,735)	(42,515)	(31,666)
Total Cash used in Financing Activities	-	(10,735)	(42,515)	(31,666)

NXT Energy Solutions Inc.

MD&A for the three and nine month periods ended September 30, 2020

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	Q3-20	Q3-19	YTD 2020	YTD 2019
Purchase of property and equipment	-	(216,691)	-	(216,691)
Decrease (increase) in short-term investments	1,523,724	(2,314,472)	2,387,450	(214,472)
Total Cash from Investing Activities	1,523,724	(2,531,163)	2,387,450	(431,163)

Short-term investments decreased in Q3-20 and YTD 2020 as the Company used investments in Guaranteed Investment Certificates to fund operations.

In Q3-19 and therefore YTD 2019 the company invested cash received from the Nigerian SFD[®] Survey. Also due the Company acquired and installed in its aircraft the ADS-B, in Q3-19.

Contractual Commitments

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

For the period ended December 31	Offic	e Premises
October to December 2020	\$	55,625
2021		222,501
2022		222,501
2023		222,501
2024		222,501
		945,629
2025		166,876
		1,112,505

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:

Legal Fees	Q3-20	Q3-19	YTD 2020	YTD 2019
	\$ 78,654	\$ 67,550	\$ 226,371	\$ 241,422

Accounts payable and accrued liabilities includes a total of \$87,432 (\$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 depreciation and impairment. During the three and nine month periods ended September 30, 2020, the Company received government grants through the CEWS. The CEWS was recognized as a reduction to general and administrative expenses.

	Q3-20	Q3-19	YTD 2020	YTD 20	19
Government grants recognized	\$ 121,706	\$ -	\$ 227,581	\$	-

Financial 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 September 30, 2020 and December 31, 2019, the Company held no derivate financial instruments. For more information relating to risks, see the section titled "*Liquidity and Capital Resources – Net Working Capital*".

Outstanding Share Capital

	Nov 16, 2020	Sept 30, 2020	December 31, 2019
Common Shares	64,406,891	64,406,891	64,406,891
Stock options	513,600	648,600	1,169,500
Deferred Share Units	31,944	31,944	-
Restricted Stock Units	1,200,000	1,200,000	-
Total Share Capital and Dilutive Securities	66,152,435	66,287,435	65,576,391

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 condensed consolidated interim 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 September 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 and on SEDAR at www.sedar.com.