

NXT ENERGY SOLUTIONS ANNOUNCES 2019 YEAR END RESULTS

CALGARY, AB, April 14, 2020 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTC QB: NSFDF) today announced the Company's financial and operating results for the year ended December 31, 2019. All dollar amounts herein are in Canadian Dollars unless otherwise identified.

Financial and Operating Highlights

Key financial and operational highlights include:

- In September 2019, the Company completed its Nigerian SFD® survey for approximately US\$8.9 Million with PE Energy Limited ("PE"), a Nigerian oil and gas service company. PE had a contract with the Nigerian National Petroleum Company ("NNPC"), to provide 5,000-line kilometers of SFD® surveys in Nigeria.
- The Company has received a total of US\$8.4 million in payments from PE for the SFD® survey in Nigeria, including US\$1.9 million in the Q4-19 and an additional US\$0.47 million in the first quarter of 2020. The final payment for contracted holdbacks amounting to approximately \$0.5 million USD is expected to be paid to the Company upon the conclusion of negotiations for additional work under the current contract framework.
- Related to the completed Nigerian SFD® survey, the Department of Petroleum Resources (the "DPR"), a department under the Federal Republic of Nigeria's Ministry of Petroleum Resources responsible for the sustainable development of Nigeria's oil and gas resources, provided written confirmation of their recommendation in favour of NXT's SFD® technology based on the recent survey results. They noted specifically: "in line with federal government aspiration to increase its Oil and Gas reserves base at a considerable reduced cost, risk and optimize exploration cycle, the SFD® technology is hereby adopted and recommended to be deployed as an independent data exploration tool for hydrocarbon exploration to identify and rank prospect-level leads to focus exploration efforts in the Nigerian Oil and Gas industry".
- NXT received confirmation of a patent granted from the European Patent Office. This brings the total number of countries granting the patent to 44. The final step is for the validation process of the SFD® technology patent in select European countries.
- In December 2019, the Company completed a C\$1,250,000 targeted issuer bid, repurchasing and retiring 4,166,667 common shares in the capital of the Company representing approximately 6.08% of the total outstanding Common Shares as of November 14, 2019, at a price of C\$0.30 per Common.
- Common share purchase warrants held by Alberta Green Ventures Limited Partnership ("AGV") have expired as of October 31, 2019.
- In February 2019, NXT entered into a Co-operative Agreement with AGV, for AGV to propose up to three SFD® surveys for cooperation with the Company within two years. The Co-operative Agreement is based on a cost-plus formula and a gross overriding royalty interest in oil and gas

production arising on lands subject to the surveys. The Company received a US\$100,000 non-refundable deposit for this Co-operative Agreement in Q2-19 and at least one of the three SFD® surveys must be completed by June 30, 2020.

- In Q3-2019, the Company advanced US\$250,000 (the "Principal Amount") to AGV for the purpose
 of furthering the shared objectives of NXT and AGV under the Co-operation Agreement. On April
 13, 2020, NXT elected to receive and directed AGV to deliver US\$250,000 as repayment of the
 Principal Amount.
- Cash and short-term investments at December 31, 2019 were \$6.64 million.
- There was \$11.98 million of survey revenues recorded in YE-19.
- Operating activities provided \$4.08 million of cash during YE-19 and net cash used for financing activities was \$1.39 million.
- Net income of \$3.77 million was recorded for YE-19, including amortization expense of \$1.78 million.
- Net income per common share for YE-19 was \$0.06 basic and \$0.06 diluted.
- General and administrative costs for YE-19 as compared to YE-18 have been reduced by \$0.50 million or 13% mostly due a reduction in business development costs, lower headcount and costs and certain expenditures being recognized as direct survey costs, offset by higher professional fees and information technology costs.
- Operating activities provided \$1.29 million of cash during Q4-19 and net cash used for financing activities was \$1.35 million.
- A net loss of \$1.78 million was recorded for Q4-19, including amortization expense of \$0.49 million.
- Net loss per common share for Q4-19 was (\$0.03) basic and (0.03) diluted.
- General and administrative costs for Q4-19 as compared to Q4-18 have increased by \$0.05 million or 6%, mostly due to an increase in business development offset by a reduction in headcount.

Message to Shareholders

George Liszicasz, President, and CEO of NXT, commented, "I am pleased to report to our shareholders that the Company was profitable and had positive cash flow from operations in 2019.

Last week we reported on the successful drilling of one of the SFD® recommendations located onshore within Nigeria. We now can report on new findings with respect to our 2017 SFD® Gulf of Mexico survey over the 2.1 bid-round offshore blocks. A lead area, indicated by SFD® as prospective, has now been drilled by third parties and the results confirm that it is a commercial discovery with early estimates of volumes greater than 200 million barrels of oil equivalent (MMBOE). Additionally, and perhaps more importantly, from a capital expenditure allocation perspective, another seismic prospect, considered non-prospective by NXT, was drilled as part of the same campaign and was declared unsuccessful. The announcements concerning these drilling activities was reported by internationally recognized upstream data providers starting late 2019. The SFD® data for the 2.1 bid-round offshore blocks was submitted to and has been available from the National Hydrocarbon Commission (CNH) of Mexico since mid-2018. These results highlight the value of adding SFD® to an upstream work program and evidences the efficacy of our geophysical method in recommending prospects with potential for hydrocarbon traps. Drilling activities over SFD® recommendations are ongoing in numerous countries and NXT shall provide further updates as warranted.

In the first quarter of 2020, NXT finalized the first phase of its survey over the Queen Charlotte Fault ("QCF") located offshore British Columbia. The purpose of the continuing QCF study is to identify

seismically active areas and to differentiate subsurface stress states in deep water settings. The Company is in the process of evaluating the acquired SFD® data.

In the month before travel restrictions were brought on by the novel coronavirus (2019-nCoV/COVID-19), my team and I completed a broad scale international market business development effort which included a signed memorandum of understanding with an independent oil company with interests in East-Central Africa. Though currently there are several challenges facing our world and industry, NXT is focused on minimizing the risks associated with them and continues to advance further discussions for SFD® survey opportunities within Nigeria, East-Central Africa, Mexico, and Asia via video conferences.

On behalf of our Board of Directors and the entire team at NXT, I want to thank all of our shareholders for their continued support in these trying times."

Summary highlights of NXT's 2019 full year and fourth quarter financial statements (with comparative figures to 2018) are noted below. All selected and referenced financial information noted below should be read in conjunction with the Company's full year 2019 audited consolidated Annual Financial Statements, the related Management's Discussion and Analysis ("MD&A") and Annual Information Form.

(all in Canadian \$)		Twelve months ended December 31,	
Operating results:	2019	2018	
Survey revenues	\$11,976,149	\$ -	
Survey expenses	2,611,086	1,103,946	
General & administrative expenses	3,497,785	3,999,089	
Stock based compensation expense	43,809	386,154	
Amortization and other expenses, net	1,781,181	1,790,267	
·	7,933,861	7,279,456	
Income (loss) before income taxes	3,772,908	(6,968,511)	
Income tax expense	-	_	
Comprehensive income (loss) for the period	3,772,908	(6,968,511)	
Loss per common share – basic	\$ 0.06	\$ (0.11)	
Loss per common share – diluted	\$ 0.06	\$ (0.11)	
Weighted average number of common shares outstanding f	or the period:		
Basic	68,156,059	65,455,325	
Diluted	68,156,059	65,455,325	
Cash provided by (used in):			
Operating activities	4,078,427	(6,043,919)	
Financing activities	(1,385,787)	9,176,839	
Investing activities	(173,927)	(2,960,006)	
Net cash inflow (outflow)	2,518,713	172,914	
Cash and cash equivalents, beginning of the period	339,532	166,618	
Cash and cash equivalents, end of the period	2,858,245	339,532	

Three r	nonths	ended	Decem	ber 31
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	2019	2018
Operating results:		
Survey revenues	\$ -	\$ -
Survey expenses	308,374	315,175
General & administrative expenses	926,919	875,705
Stock based compensation expense	(28,724)	(173,367)
Amortization and other expenses, net	449,015	447,942
	1,655,584	1,465,455
Income (loss) before income taxes	(1,775,287)	(1,392,716)
Income tax expense	-	_
Comprehensive loss for the period	(1,775,287)	(1,392,716)
Loss per common share – basic	\$ (0.03)	\$ (0.02)
Loss per common share – diluted	\$ (0.03)	\$ (0.02)
Number of common shares outstanding as at end of the period Weighted average number of common shares outstanding for the period	64,406,891 eriod:	68,573,558
Basic	64,406,891	68,573,558
Diluted	64,406,891	68,573,558
Cash provided by (used in):		
Operating activities	1,289,465	(1,162,392)
Financing activities	(1,354,121)	(12,187)
Investing activities	257,236	1,100,000
Net cash inflow (outflow)	192,580	(74,579)
Cash and cash equivalents, beginning of the period	2,665,665	414,111
Cash and cash equivalents, end of the period	2,858,245	339,532
Cash and cash equivalents	2,858,245	339,532
Short-term investments	3,781,512	3,900,000
Total cash and short-term investments	6,639,757	4,239,532
Net working capital balance	7,129,182	3,823,832

NXT's 2019 full year and fourth quarter financial and operating results have been filed in Canada on SEDAR at www.sedar.com, and will soon be available in the USA on EDGAR at www.sec.gov/edgar, as well as on NXT's website at www.nxtenergy.com.

Details of the conference call are as follows:

Date:	Tuesday, April 14, 2020
Time:	4:30 p.m. Eastern Time (2:30 p.m. Mountain Time)
North American Participants Call:	(855)-783-0506
Participant Pass Code	5388865

About NXT Energy Solutions Inc.

NXT Energy Solutions Inc. is a Calgary-based technology company whose proprietary SFD® survey system utilizes quantum-scale sensors to detect gravity field perturbations in an airborne survey method which can be used both onshore and offshore to remotely identify traps and reservoirs with exploration potential. The SFD® survey system enables our 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.

Contact Information

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Forward-Looking Statements

Certain information provided in this press release may constitute forward-looking information within the meaning of applicable securities laws. Forward-looking information typically contains statements with words such as "anticipate", "believe", "estimate", "will", "expect", "plan", "schedule", "intend", "propose" or similar words suggesting future outcomes or an outlook. Forward-looking information in this press release includes, but is not limited to, information regarding: the repayment of the Principle Amount; business negotiations and opportunities, including the extent to which the DPR recommendation may further the development thereof; results disclosure and discussions, including the timing thereof; business strategies and objectives, successful completion of the validation of patents in select European countries; and continued research on the QCF study. Although the Company believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks, including those related to the novel coronavirus (2019-nCoV/COVID-19), and the potentially negative effects thereof on the Company's workforce, its supply chain or demand for its products. Additional risk factors facing the Company are described in its most recent Annual

Information Form for the year ended December 31, 2019, which has been filed electronically by means of the System for Electronic Document Analysis and Retrieval (SEDAR) located at www.sedar.com. The forward-looking statements contained in this press release are made as of the date hereof, and except as may be required by applicable securities laws, the Company assumes no obligation to update publicly or revise any forward-looking statements made herein or otherwise, whether as a result of new information, future events or otherwise.

Non-GAAP Measures

This news release contains disclosure respecting non-GAAP performance measures including net working capital which does not have a standardized meaning prescribed by US GAAP and may not be comparable to similar measures presented by other entities. This measure is included to enhance the overall understanding of NXT's ability to assess liquidity at a point in time. Readers are urged to review the section entitled "Non-GAAP Measures" in NXT's MD&A for the year ended December 31, 2019 which is available under NXT's profile on SEDAR at www.sedar.com, for a further discussion of such non-GAAP measures. The financial information accompanying this news release was prepared in accordance with US GAAP unless otherwise noted. Management's discussion and analysis of financial results and the audited consolidated financial statements and notes for the year ended December 31, 2019, are available through the Internet in the Investor Relations section of www.nxtenergy.com or under NXT's SEDAR profile at www.sedar.com.