



NXT ENERGY SOLUTIONS ANNOUNCES ACQUISITION OF GEOTHERMAL RIGHTS

CALGARY, AB, April 19, 2021 – NXT Energy Solutions Inc. (“NXT” or the “Company”) (TSX:SFD; OTC QB:NSFDF) is pleased to announce that it has acquired the SFD® technology rights for geothermal resources (“Geothermal Resources”) from Mr. George Liszicasz, President and CEO of NXT, and who is the inventor of the SFD® technology. This agreement was negotiated between Mr. Liszicasz and the independent members of NXT’s Board of Directors (“NXT Board”).

Geothermal applications include naturally occurring sub-surface fluid reservoirs or rock conditions from which heat can be extracted and utilized for generating electric power, or for direct utilization in industrial, agricultural or domestic applications. The main subsurface properties such as porosity, permeability and impermeable cap rock that are vital in the search for oil and gas resources and are equally critical for locating the most prospective geothermal resources. For these reasons, the SFD® technology has a natural extension to geothermal applications and given the currently occurring step change in the worldwide energy industry, the NXT Board believes that the acquisition of this right is well timed and applicable.

Since first commercialized in 2007 for hydrocarbon use, NXT’s non-intrusive SFD® airborne technology enables its customers to significantly improve drill success rates while reducing the overall negative environmental impact of traditional large-scale ground surveys by minimalizing disruptions to community life and surface use. In April 2020, NXT received confirmation of a patent granted from the European Patent Office bringing the total number of countries granting the patent internationally to 44. NXT will apply for patent protection for the geothermal applications of SFD® once development of the SFD® sensors reach appropriate milestones.

The NXT Board noted, “As industries worldwide transition toward a low-carbon economy, geothermal energy has gained greater prominence for its environmental benefits as a non-intermittent renewable energy source. NXT takes great pleasure in announcing this agreement, and looks forward to leveraging its extensive research and marketing skillset acquired in hydrocarbon resources to develop and commercialize the Geothermal Resource application of the SFD® technology.”

The consideration for the acquisition of the Geothermal Resource will be settled in these significant milestones.

1. A signature payment of US\$40,000 and 300,000 common shares in the equity of the Company (“Common Shares”), subject to TSX approval, are due immediately;
2. US\$200,000 milestone payment will be made when the Company’s cash balance is over CAD\$5,000,000, due to receipt of funds from operations; and

3. US\$250,000 SFD® project contract milestone. This milestone will be paid if within two (2) years the Company signs SFD® contracts valued at US\$10,000,000 or greater, and is in receipt of at least US\$5,000,000 cash from those same SFD® project contracts.

Following the issuance of the 300,000 Common Shares, Mr. Liszicasz will hold approximately a total of 15,337,234 (23.7%) of NXT Energy's 64,814,921 outstanding Common Shares.

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 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.

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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: acceptance of the issuance of 300,000 shares to Mr. Liszicasz by the TSX, business negotiations and opportunities; business strategies and objectives; continued research and development on the Geothermal Resource; the patent application process for Geothermal Resources; and completion of the agreement payment milestones. 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, 2020 and the MD&A for the year ended December 31, 2020, which have 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.