

NXT ANNOUNCES GEOTHERMAL SURVEY FOR ALBERTA GEOTHERMAL RESOURCE RECOVERY INC.

CALGARY, AB, August 21, 2024 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTCQB: NSFDF) is pleased to announce it has entered into a geothermal survey agreement with Alberta Geothermal Resource Recovery Inc. (AGRRI). The survey will be flown in Alberta, Canada.

The survey will be conducted at a mutually agreeable time and subject to aircraft availability and the receipt of permits from the government authorities. A standard survey project would normally take 2-3 months from the initiation of data acquisition to the delivery of the Standard Report. This timeline does not include integration which is nominally conducted following delivery of the Standard Report.

Bruce G. Wilcox, CEO of NXT stated "The AGRRI survey is an important milestone in NXT's development of the geothermal application of our SFD[®] technology; our first survey for a client. The value to NXT will primarily be to demonstrate the commerciality of SFD[®] in the geothermal domain. Other potential geothermal clients will be keenly interested in the results."

About Alberta Geothermal Resource Recovery Inc.

AGRRI is a geothermal company based in Alberta, Canada that aims to help Canada reach its goal of NET ZERO GHG Emissions by 2050, primarily by repurposing abandoned oil and gas wells into geothermal wells, turning liabilities to assets.

The geothermal potential of Alberta occurs mainly at depths between 1.5 to 5 kilometers below the surface contained in geological formations of the Western Canada Sedimentary Basin. Development of the resource can help diversify Alberta's energy sector and provide electricity and heat to municipalities, industry and remote areas.

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 hydrocarbon and geothermal 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.

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 "will", "may", "can", "enable" or similar words suggesting future outcomes or an outlook. Forward-looking information in this press release includes, but is not limited to, information regarding: aircraft availability, the ability to obtain necessary permits. 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. Risk factors facing the Company are described in its most recent annual information form for the year ended December 31, 2023 and MD&A for the six-month period ended June 30, 2024, which have been filed electronically by means of the System for Electronic Document Analysis and Retrieval ("SEDAR+") located at www.sedarplus.ca. 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.