



**NXT FINALIZES US \$4.73 MILLION PEMEX CONTRACT,
INITIATES NEW SURVEY IN BELIZE, AND
EXPANDS GEOSCIENCES ADVISORY BOARD**

CALGARY, ALBERTA, September 20, 2012 - NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX-V:SFD; OTC:NSFDF) announces that it has now completed formal execution of its US \$4.73 million SFD® survey contract (as announced on September 12, 2012) with Petrolões Mexicanos ("PEMEX"), the National Oil Company of Mexico, and the 4th largest exploration & production company in the world.

SFD® data acquisition operations, covering large offshore and onshore areas in Mexico and have now been completed. Interpretation of the SFD® data is well underway with preliminary findings in process of being presented. NXT's final recommendations report is scheduled to be delivered to PEMEX by December, 2012.

"We are pleased with how the project has progressed so far and look forward to building a long-term relationship with PEMEX" said George Liszicasz, NXT's President and CEO. "This contract with a premier client shows the growing industry acceptance of our patent pending technology and builds upon our growth strategy to expand SFD® adoption beyond our core area in Latin America."

NXT also advises that it has conducted an SFD® survey on a prospect in Belize for a private oil and gas exploration and production company. The survey aims to independently confirm a seismically identified structural trap and evaluate its reservoir potential. The project has a minimum value of US \$450,000, with additional success-based contingent consideration in the form of a royalty and bonus. This project is also expected to be completed and delivered in Q4 2012.

NXT announces that Professor Cleveland Jones has joined its Geosciences Advisory Board. Professor Jones is currently with the National Oil & Gas Institute of Brazil, in Rio de Janeiro and is involved primarily with research of innovative new oil & gas exploration technologies and methodologies, and energy policies. He has consulted to international oil and gas companies worldwide, and is a sought after academic commentator on energy policy issues. Professor Jones graduated in Physics and Economics from Cornell University (Ithaca, NY) and obtained a post-graduate degree in Oil and Gas Engineering, as well as a Masters in Geology, from the State University of Rio de Janeiro. Professor Jones is fluent in English, Portuguese and Spanish.

"We are pleased to have Professor Jones join NXT's existing Geosciences Advisory Board, which has a mandate of expanding awareness and acceptance of the SFD technology in the oil & gas industry", noted George Liszicasz. "Professor Jones will be actively working with NXT management in a technical advisory capacity to help us further expand into Brazil's large potential onshore and offshore exploration markets".

NXT is a Calgary based company whose proprietary airborne Stress Field Detection ("SFD®") survey system provides a proprietary survey method that can be used both onshore and offshore to remotely identify areas with exploration potential for traps and reservoirs. 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 provides its clients with an effective and reliable method to reduce time, costs, and risks related to exploration.

This news release does not constitute an offer to sell or a solicitation of an offer to buy any of the securities in the United States. The company's securities have not been and will not be registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act") or any state securities laws and may not be offered or sold within the United States unless an exemption from such registration is available.

Forward-Looking Statements

This news release may include forward-looking statements. When used in this document, words such as “intends”, “plans”, “anticipates”, “expects” and “scheduled”, are forward-looking statements. Forward-looking statements are subject to a wide range of risks and uncertainties, and although the Company believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will be realized. Any number of factors can cause actual results to differ materially from those in the forward-looking statements.

Specific forward looking statements include the planned timing and completion of the surveys in Mexico and Belize. Specific risk factors related to the new PEMEX contract include weather conditions and other local factors, which may adversely impact NXT's ability to conduct the survey, and potential performance penalties, which are standard clauses for these types of contracts.

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