



NXT Finalizes Contract for Survey in Guatemala

CALGARY, ALBERTA, December 19, 2011 - NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX-V:SFD; NASDAQ-OTCBB:NSFDF), announces that it has signed a binding contract to conduct a US \$700,000 SFD[®] survey in Guatemala. The contract involves one of Latin America's largest oil and gas exploration and production companies.

"The finalization of this contract represents another step towards executing against our \$8.9 million backlog of contracts," said NXT President and CEO, George Liszicasz. "The opportunity to conduct this survey in Guatemala allows NXT to grow its presence in the Latin American market by entering a new jurisdiction with a new client that has partnered with one of NXT's repeat customers on this project."

The Guatemala contract relates to a letter of intent, previously announced on June 30, 2011, that spanned six separate contracts. Five of these contracts have now been signed and NXT is in process of finalizing the terms of the sole, remaining contract that has an additional revenue value of US \$1 million. NXT's contracts provide for progress billings in phases, including a significant portion for initial set-up and mobilization.

In summary, the status of NXT's current \$8.9 million in contract backlog is as follows:

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| Colombia (four contracts signed, data acquisition operations completed) | \$ 2.9 |
| Argentina (contract signed, operations underway) | 1.6 |
| Guatemala (contract signed, operations to commence in January 2012) | 0.7 |
| South-east Asia (contract signed, awaiting final regulatory clearance) | 2.7 |
| Total signed contracts | 7.9 |
| Colombia (contract pending finalization) | 1.0 |
| Total - US \$ millions | 8.9 |

NXT is also pleased to have Ms. Sally Elliott join its team. Ms. Elliott, who was previously a member of the investor relations group at Pengrowth Corporation for 12 years, will be tasked with enhancing and expanding NXT's investor and public relations activities. The agreement provides for an initial term of 6 months, a cash retainer of \$12,000 and the granting of up to 400,000 incentive stock options to purchase common shares. The options have graded exercise prices, with a total of 100,000 options being exercisable at each of \$1, \$2, \$3, and \$4 per share. The options have a term of 18 months, with 1/3 of the total vesting after each three month period.

NXT is a Calgary based company whose proprietary airborne Stress Field Detection ("SFD[®]") survey system provides a revolutionary survey method that can be used both onshore and offshore to remotely identify potential hydrocarbon traps and reservoirs. NXT provides its clients an efficient and reliable method to reduce time, costs, and risks related to exploration surveys. The SFD[®] survey system enables our clients to more efficiently focus their hydrocarbon exploration decisions concerning land commitments, data acquisition expenditures and prospect prioritization onto the 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.

Forward-Looking Statements

This news release includes forward-looking statements. When used in this document, words such as “intended”, “anticipate”, “plans”, “expected” 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 a forward-looking statement 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.

For further information contact:

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| Greg Leavens, VP Finance & CFO | Jeremy Dietz |
| NXT Energy Solutions Inc. | The Equicom Group |
| 505 — 3rd Street SW, Suite 1400 | 300 - 5th Avenue SW, 10th Floor |
| Calgary, Alberta, Canada T2P 3E6 | Calgary, Alberta, Canada T2P 3C4 |
| Tel: (403) 206-0805 | Tel: (403) 218-2833 |
| nxt_info@nxtenergy.com | jdietz@equicomgroup.com |
| www.nxtenergy.com | |

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