

NXT ANNOUNCES PROFITABLE Q2 AND RECORD 2012 YTD FINANCIAL RESULTS AND INVESTOR UPDATE CALL

CALGARY, ALBERTA, September 4, 2012 - NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX-V:SFD; OTC:NSFDF) is pleased to announce its financial and operating results for the three and six month periods ended June 30, 2012. All selected and referenced financial information should be read in conjunction with NXT's consolidated financial statements and management discussion and analysis ("MD&A") as filed on SEDAR at www.sedar.com, on NXT's website at www.nxtenergy.com and on EDGAR at www.sec.gov/edgar.

For the Q2 three month period ended June 30, 2012, NXT had net earnings of \$30,660 (\$0.00 per share) on revenues of \$2,394,863 and for the six months year-to-date 2012, net earnings of \$368,588 (\$0.01 per share) on revenues of \$5,210,183. Q2 is NXT's second consecutive profitable quarter. Q1 and Q2 combined represent a record 6 month financial result. For the comparable 2011 periods, the Company had a Q2 -2011 net loss of \$692,510 (\$0.02 per share) on revenues of \$144,650, and for the six months year-to-date 2011 a net loss of \$1,485,227 (\$0.04 per share) on revenues of \$144,650. Six month results are illustrated in the chart below:

	Six months ending June 30, 2012	Six months ending June 30, 2011
Survey Revenue	\$ 5,210,183	\$ 144,650
Net Income (loss)	368,588	(1,485,227)
Basic and diluted earnings (loss) per share	0.01	(0.04)

"Building on our successful Q1-2012, I am pleased to report additional revenues and profit for the Q2-2012 period, thus extending our return to profitability. Profitability is a primary goal for NXT this year." said George Liszicasz, NXT's President & CEO. "We are on track to post record revenues for fiscal 2012".

NXT's Q2 results reflect the completion of SFD® surveys in Argentina and Guatemala, with the 2012 year-to-date total also reflecting a high level of Q1 survey activity in Colombia. Conducting surveys in Argentina and Guatemala represent significant accomplishments for NXT, as these are both new step-out markets from our initial focus area of Colombia.

NXT has a current awarded contract backlog of US \$2.66 million which relates to a 2011 contract for a survey which continues to be planned for Q3 in South Asia. In addition, pursuant to a 2011 Letter Of Intent, an existing repeat client has proposed conducting an additional US \$1.0 million survey on a Colombia exploration block, which NXT would aim to add to other potential new survey activity in Colombia and elsewhere in Latin America.

Kin Communications Inc. ("KIN") of Vancouver, BC, Canada has been engaged to assist in expanding NXT's investor and media relations initiatives, and in particular to communicate NXT's growing business opportunities to a wider audience. KIN is one of Canada's leading full-service investor relations firm specializing in small-to-mid-cap resource ventures. They have a proven track record of generating interest in their clients, building an active shareholder base, and solidifying communications that differentiate clients from their peers. KIN will assist in increasing public awareness by managing NXT's corporate communications, marketing endeavours, and help foster productive, ongoing engagement with shareholders, finance professionals, and media contacts. KIN has worked with several of the TSX's top performers and looks forward to helping NXT advance its unique story.

The agreement with KIN, which is subject to approval by the TSX Venture Exchange, is for a term of up to 15 months (subject to review after 4 months), and includes a base monthly retainer of \$7,500 plus the grant of 300,000 stock options. These options are granted in accordance with the terms of NXT's Stock Option Plan, and shall have an exercise price of \$1.20 per share, will vest over the 15 month term (20% after each three month period) and shall have a five year term to expiry. In the event the contract is not renewed the unvested portion of the options shall be cancelled upon termination.

NXT also wishes to thank Mrs. Sally Elliott for her expertise and professionalism and outstanding efforts over the last six months in building our investor relations program.

NXT also advises that it will be opening the TSX Exchange by "Ringing the Bell" in Toronto on Friday, September 14, 2012. Prior to that event, NXT will host an investor and media conference call on Wednesday, September 12, 2012 at 1:00 PM MST (3:00 PM EST) to discuss results for the 6 month Q2 period ended June 30, 2012, and an extensive update on all areas of our business.

NXT's management invites all interested parties to participate in this call, by using one of the applicable numbers below:

Conference Code: 776268

Participant access code: 5034838 (followed by the "#" key)

1-877-385-4099 (Toll Free Canada & USA)

613-212-4220 Ottawa 514-395-9913 Montreal 604-899-2339 Vancouver 403-232-0994 Calgary 780-421-1483 Edmonton 416-883-0133 Toronto

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 potential hydrocarbon 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 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.

Specific forward looking statements include the plans for the timing of the survey contract to be conducted in South Asia.

For further information, please contact:

Greg Leavens, V-P Finance & CFO	George Liszicasz, President & CEO	
NXT Energy Solutions Inc.	NXT Energy Solutions Inc.	
Tel: (403) 206-0805	Tel: (403) 206-0800	
gleavens@nxtenergy.com	george@nxtenergy.com	
www.nxtenergy.com	www.nxtenergy.com	
Arlen Hansen – President	Cristina Bittante – VP Marketing & Investor Relations	
kin communications	kin communications	

Tel: (604)684-6730 or 1-866-684-6730 Tel: (604)684-6730 or 1-866-684-6730 or 1-866-6

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) nor the OTC Exchange accept responsibility for the adequacy or accuracy of this release.