

NXT ENERGY SOLUTIONS ANNOUNCES APPOINTMENT OF INTERIM CHIEF EXECUTIVE OFFICER

CALGARY, AB, June 21 2023 – NXT Energy Solutions Inc. ("NXT" or the "Company") (TSX: SFD; OTCQB: NSFDF) is pleased to announce the appointment of Mr. Bruce G. Wilcox as Interim Chief Executive Officer, effective immediately. Mr. Wilcox has been a member of the Company's board of directors since 2015, and brings extensive capital markets and energy investment experience to NXT'S executive team.

Mr. Wilcox holds a Bachelor of Arts (Honors), in Modern Chinese from the University of California, Santa Barbara, and a Master of International Management from the American Graduate School of International Management in Phoenix.

Mr. Wilcox has had a long career as an investment company CEO, analyst and portfolio manager. He spent most of his career with Cumberland Associates, LLC, a New York equity fund, from 1986 through retirement in 2010, progressing from analyst / portfolio manager to partner (1989), and Chairman of the Management Committee (1997). Mr. Wilcox specialized in Cumberland's investments in the energy industry (exploration and production and service companies), with an emphasis on value and long-term holdings. During his tenure, the fund's assets under management ranged from US\$0.7 billion to \$1.5 billion.

From 1984 to 1986, Mr. Wilcox was with Central National-Gottesman, Inc. as an analyst and portfolio manager on a team responsible for a \$500 million listed equity portfolio. Mr. Wilcox was CEO of E Street Management, LLC from 2016 through 2020 which managed a long/short equity fund of funds. From January 2011 to present he has also been one of three managing members of Xiling Fund III, LLC, part of a series of private equity funds (US\$100+ million) which specialize in investing in museum-quality Imperial Chinese porcelains, archaic bronzes and ink paintings.

Mr. Wilcox is a member of several boards, including the Teachers College of Colombia University, acting as the Chair of the Investment Committee since 2003; the University of California Santa Barbara Foundation, including as former Chair of the Board of Trustees, Investment and Finance Committees; and was a Trustee (2001 to May, 2023) of the Manhattan Institute For Policy Research, a leading urban, state, and national policy institution, which works on matters such as energy policy.

Mr. Wilcox will continue to serve on the NXT's board of directors.

"Together with our board of directors, I am delighted to have Mr. Wilcox appointed as our Interim CEO", says Charles Selby, Lead Director. "Over the past eight years, Mr. Wilcox has provided leadership to our organization as a member of the board of directors. His experience has been and will continue to be invaluable as we execute on future business opportunities. I am grateful we have someone of his character, experience and caliber to contribute to critical steps in NXT's growth."

With the appointment of Mr. Wilcox as the Interim CEO, the committee of the board of directors that assumed the CEO's duties in January will immediately cease to have a governing role, but may continue

as an advisory body. The Company wishes to thank Mr. Charles Selby, Mr. Gerry Sheehan, and Mr. Bruce G. Wilcox for the senior management expertise and leadership they provided as a committee over the last six months.

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.

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