



NexGen Releases 2021 Sustainability Report

Vancouver, British Columbia, November 3, 2022 - NexGen Energy Ltd. ("NexGen" or the "Company") (TSX/NYSE: NXE, ASX: NXG) is pleased to announce the release of its 2021 Sustainability Report ("the Report"), available [online](http://www.nexgenenergy.ca) on the Company's website www.nexgenenergy.ca in the "Responsible Development" section. The Report highlights specific programs, initiatives, and organizational frameworks that NexGen has created or expanded upon to deliver as much positivity as possible for as many people as possible.

Leigh Curyer, Chief Executive Officer commented: "The principles of NexGen's approach to sustainability aren't dependent on the stage of our development – it's a focus that's embedded into our daily business decision making across the organization. The Report demonstrates seamless integration of sustainability across all areas of people and project development, execution and operations, and long-term strategic planning. It reflects NexGen's 'elite standards' approach to everything we do and is a great insight into the philosophy of how we've conducted our business since inception."

Highlights in the Report:

Benefit Agreements: NexGen signed Benefit Agreements with the Buffalo River Dene Nation and Birch Narrows Dene Nation covering all phases of the Rook I Project including closure, and formalizing NexGen's commitment to work in partnership with all local communities, with the mutual objective to responsibly develop the Rook I Project. In early 2022 NexGen and the Clearwater River Dene Nation signed a third Benefit Agreement.

Integrated Business and ESG Framework: NexGen introduced a structured Integrated Business and ESG Framework to formally combine sustainability and ESG with the Company's practices and decisions.

Greenhouse Gas ("GHG") Emissions Inventory: In order to help understand the Company's impacts, NexGen carried out a GHG Emissions Inventory for the period 2013 (since Company going public)-2021, using the operational control approach with geographic boundaries set to include the Company's Saskatoon and Vancouver offices and the Rook I property.

Integrated Management System ("IMS"): NexGen implemented an IMS for all employees and contractors with robust occupational health and safety processes and established a joint Occupational Health and Safety Committee ("OHC") for the Rook I site during field activities.

This is NexGen's second Sustainability Report and covers the period January 1 to December 31, 2021 and is prepared with reference to the Global Reporting Initiative ("GRI") Standards. The Company will continue reporting on an annual basis.

About NexGen

NexGen is a British Columbia corporation focused on the development of the Rook I Project located in the southwestern Athabasca Basin, Saskatchewan, Canada, into production. The Rook I Project is supported by a NI 43-101 compliant Feasibility Study which outlines elite environmental performance as well as industry leading economics. Rook I hosts the Arrow Deposit that hosts Measured Mineral Resources

of 209.6 M lbs of U₃O₈ contained in 2.18 M tonnes grading 4.35% U₃O₈, Indicated Mineral Resources of 47.1 M lbs of U₃O₈ contained in 1.57 M tonnes grading 1.36% U₃O₈, and Inferred Mineral Resources of 80.7 M lbs of U₃O₈ contained in 4.40 M tonnes grading 0.83% U₃O₈.

NexGen has a highly experienced team of uranium industry professionals with a successful track record in the discovery of uranium deposits and in developing projects through discovery to production. The Company is the recipient of the 2018 PDAC Bill Dennis Award for Canadian mineral discovery and the 2019 PDAC Environmental and Social Responsibility Award.

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Technical Disclosure

All technical information in this news release has been reviewed and approved by Kevin Small, P.Eng., NexGen's Senior Vice President, Engineering and Operations, a qualified person under National Instrument 43-101.

A technical report in respect of the FS is filed on SEDAR (www.sedar.com) and EDGAR (www.sec.gov/edgar.shtml) and is available for review on NexGen Energy's website (www.nexgenenergy.ca).

Cautionary Note to U.S. Investors

This news release includes Mineral Reserves and Mineral Resources classification terms that comply with reporting standards in Canada and the Mineral Reserves and the Mineral Resources estimates are made in accordance with NI 43-101. NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. These standards differ from the requirements of the Securities and Exchange Commission ("SEC") set by the SEC's rules that are applicable to domestic United States reporting companies. Consequently, Mineral Reserves and Mineral Resources information included in this news release is not comparable to similar information that would generally be disclosed by domestic U.S. reporting companies subject to the reporting and disclosure requirements of the SEC Accordingly,

information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

Forward-Looking Information

The information contained herein contains "forward-looking statements" within the meaning of applicable United States securities laws and regulations and "forward-looking information" within the meaning of applicable Canadian securities legislation. "Forward-looking information" includes, but is not limited to, statements with respect to mineral reserve and mineral resource estimates, the 2021 Arrow Deposit, Rook I Project and estimates of uranium production, grade and long-term average uranium prices, anticipated effects of completed drill results on the Rook I Project, planned work programs, completion of further site investigations and engineering work to support basic engineering of the project and expected outcomes. Generally, but not always, forward-looking information and statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or the negative connotation thereof or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment that, based on certain estimates and assumptions, the mineral resources described can be profitably produced in the future.

Forward-looking information and statements are based on the then current expectations, beliefs, assumptions, estimates and forecasts about NexGen's business and the industry and markets in which it operates. Forward-looking information and statements are made based upon numerous assumptions, including among others, that the mineral reserve and resources estimates and the key assumptions and parameters on which such estimates are based are as set out in this news release and the technical report for the property, the results of planned exploration activities are as anticipated, the price and market supply of uranium, the cost of planned exploration activities, that financing will be available if and when needed and on reasonable terms, that third party contractors, equipment, supplies and governmental and other approvals required to conduct NexGen's planned exploration activities will be available on reasonable terms and in a timely manner and that general business and economic conditions will not change in a material adverse manner. Although the assumptions made by the Company in providing forward looking information or making forward looking statements are considered reasonable by management at the time, there can be no assurance that such assumptions will prove to be accurate in the future.

Forward-looking information and statements also involve known and unknown risks and uncertainties and other factors, which may cause actual results, performances and achievements of NexGen to differ materially from any projections of results, performances and achievements of NexGen expressed or implied by such forward-looking information or statements, including, among others, the existence of negative operating cash flow and dependence on third party financing, uncertainty of the availability of additional financing, the risk that pending assay results will not confirm previously announced preliminary results, conclusions of economic valuations, the risk that actual results of exploration activities will be different than anticipated, the cost of labour, equipment or materials will increase more than expected, that the future price of uranium will decline or otherwise not rise to an economic level, the appeal of alternate sources of energy to uranium-produced energy, that the Canadian dollar will strengthen against the U.S. dollar, that mineral resources and reserves are not as estimated, that actual costs or actual results of reclamation activities are greater than expected, that changes in project parameters and plans continue to be refined and may result in increased costs, of unexpected variations in mineral resources and reserves, grade or recovery rates or other risks generally associated with mining, unanticipated delays in obtaining

governmental, regulatory or First Nations approvals, risks related to First Nations title and consultation, reliance upon key management and other personnel, deficiencies in the Company's title to its properties, uninsurable risks, failure to manage conflicts of interest, failure to obtain or maintain required permits and licences, risks related to changes in laws, regulations, policy and public perception, as well as those factors or other risks as more fully described in NexGen's Annual Information Form dated February 25, 2022 filed with the securities commissions of all of the provinces of Canada except Quebec and in NexGen's 40-F filed with the United States Securities and Exchange Commission, which are available on SEDAR at www.sedar.com and Edgar at www.sec.gov.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information or statements or implied by forward-looking information or statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Readers are cautioned not to place undue reliance on forward-looking information or statements due to the inherent uncertainty thereof.

There can be no assurance that forward-looking information and statements will prove to be accurate, as actual results and future events could differ materially from those anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements or information. The Company undertakes no obligation to update or reissue forward-looking information as a result of new information or events except as required by applicable securities laws.