



NexGen Announces the Completion of the Provincial Environmental Assessment Technical Review and Submission of the Final Environmental Impact Statement

Vancouver, BC, August 21, 2023 - NexGen Energy Ltd. ("NexGen" or the "Company") (TSX: NXE) (NYSE: NXE) (ASX: NXG) is pleased to announce a major milestone in the advancement of regulatory approvals for the 100% owned Rook I Project ("Rook I" or the "Project") with the completion of the Provincial Environmental Assessment ("EA") technical review process and submission of the Final Provincial Environmental Impact Statement ("EIS") to the Saskatchewan Ministry of Environment ("ENV").

The Project, located in the uranium-rich district of Saskatchewan's southwestern Athabasca Basin, includes underground and surface facilities to support the mining and processing of uranium ore from the Arrow Deposit. The ENV have confirmed completion of their conformity review of the revised EIS submitted by NexGen on July 5, 2023, and the planned advancement of the Provincial EA to the public review stage.

Leigh Curyer, Chief Executive Officer commented: "The submission of the Final Provincial EIS to the Saskatchewan Ministry of Environment is a significant step in the regulatory advancement of the Rook I Project. It marks the completion of a robust and thorough Provincial technical review process, and incorporates the diverse perspectives of multiple Provincial agencies and stakeholders with deep experience in uranium mining.

We are incredibly proud of the contribution and partnership of all four local Indigenous communities in the local project area whom, through industry-leading Benefit Agreements, have all confirmed their formal and legal consent for the Company and Project throughout its entire lifespan. In parallel to today's exciting milestone, we focus on the successful completion of the Federal EA and licensing process working diligently on delivering generational benefits to Saskatchewan and Canada to secure the clean energy transition for the globe."

Provincial EA Next Steps

The next step under the Provincial EA process is the conduct of a 30-day Provincial public review. The ENV has commenced preparing the materials required for Provincial public review scheduled to commence on or prior to September 2, 2023. Subsequent to completion of this 30-day public review period, ENV staff will compile the requisite EA materials and prepare a recommendation to the Saskatchewan Minister of Environment, who will then render a Ministerial decision on the advancement of the Project.

Federal EA and Licensing Update

In parallel to the ongoing Provincial EA process, NexGen is in the final stages of completing responses to the Federal technical and public review comments received on the Draft EIS through the Federal EA review process completed in Q4 2022.

Through a cooperative Provincial-Federal EA process, the ENV and Canadian Nuclear Safety Commission (“CNSC”) continue to share information, while providing a comprehensive EA process in accordance with the separate requirements that apply and must be satisfied with respect to the Acts, regulations, and guidelines in place for each of the respective jurisdictions.

NexGen has conducted an integrated approach to the Federal EA and licensing processes for the Project whereby information to support the Federal license application has been submitted to the CNSC in a staged manner since 2019 to ensure alignment between the EA and licensing documentation. During Q2 2023, NexGen completed submission of all the final components of the complete license application package to the CNSC.

Indigenous and Public Engagement

Engagement with local Indigenous Groups, local communities, residents, businesses, organizations, land users, and regulatory authorities is foundational to the responsible development of resource projects. Since 2013, NexGen has worked closely with local communities and those expressing interest in the Project reflecting meaningful, long-term relationships based on transparency, respect, and trust.

NexGen’s approach to the EA process has focused on enabling dialogue with and seeking feedback from Indigenous Groups who could potentially be affected by the proposed Project. To facilitate engagement with local Indigenous Groups, NexGen entered into Study Agreements with each of the Clearwater River Dene Nation (“CRDN”), Métis Nation – Saskatchewan (“MN-S”) on behalf of MN-S Northern Region 2 (“NR2”), Birch Narrows Dene Nation (“BNDN”), and Buffalo River Dene Nation (“BRDN”) in 2019. The Study Agreements formalized the engagement approaches that support each primary Indigenous Group’s participation in the entire EA process, including capacity funding for engagement and retention of technical support. The Study Agreements also fully funded the completion of self-directed Indigenous Knowledge and Traditional Land Use Studies by each Indigenous Group that were valuable sources of information incorporated by NexGen in conducting the EA.

In addition, the Study Agreements facilitated the framework in which NexGen and each Indigenous Group negotiated in good faith to formalize the Benefit Agreements. The Benefit Agreements define the environmental, cultural, economic, training, employment, business opportunities, and other benefits to be provided to the Indigenous Groups by NexGen and to confirm the consent and support of those Indigenous Groups for the Project. Consequently, NexGen signed Benefit Agreements with each of the four communities in the local project area.

These four Indigenous Groups (i.e., the CRDN, MN-S NR2, BNDN, and BRDN) collectively represent the First Nation and Métis communities for which the ENV assigned procedural aspects of the Duty to Consult for the Project to NexGen, and which have been identified by NexGen as the primary Indigenous Groups for consultation in consideration of the Federal requirements of the CNSC.

Rook I Project Environmental Impact Statement

NexGen conducted the EA pursuant to *The Environmental Assessment Act* of Saskatchewan and the *Canadian Environmental Assessment Act, 2012*. Data and analyses on the potential positive and adverse effects from the Project are included in the EIS, as well as the mitigation measures and monitoring and management programs to be implemented by NexGen. Other important aspects of the EIS include the demonstration of meaningful engagement with affected Indigenous Groups, local communities, and the public, and the incorporation of Indigenous and Local Knowledge into the EA.

The Final Provincial EIS incorporates and addresses information from technical review comments provided by the ENV fulfilling a key aspect of meeting Provincial requirements so that the ENV can make an informed decision regarding Project approval.

About NexGen

NexGen Energy is a Canadian company focused on delivering clean energy fuel for the future. The Company's flagship Rook I Project is being optimally developed into the largest low-cost producing uranium mine globally, incorporating the most elite environmental and social governance standards. The Rook I Project is supported by a NI 43-101 compliant Feasibility Study which outlines the elite environmental performance and industry-leading economics. NexGen is led by a team of experienced uranium and mining industry professionals with expertise across the entire mining life cycle, including exploration, financing, project engineering and construction, operations, and closure. NexGen is leveraging its proven experience to deliver a Project that socially, technically, and environmentally leads the entire mining industry. The Project and prospective portfolio in northern Saskatchewan will provide generational long-term economic, environmental, and social benefits for Saskatchewan, Canada, and the world.

NexGen is listed on the Toronto Stock Exchange, the New York Stock Exchange under the ticker symbol "NXE," and on the Australian Securities Exchange under the ticker symbol "NXG," providing access to global investors to participate in NexGen's mission of solving three major global challenges in decarbonization, energy security and access to power. The Company is headquartered in Vancouver, British Columbia, with its primary operations office in Saskatoon, Saskatchewan.

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Technical Disclosure

All technical information in this news release has been reviewed and approved by Kevin Small, 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 24, 2023 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.