



NexGen Advances Federal Environmental Assessment Process Through Submission of Responses to Remaining Information Requests

Vancouver, BC, May 21, 2024 – NexGen Energy Ltd. (“NexGen” or the “Company”) (TSX: NXE) (NYSE: NXE) (ASX: NXG) is pleased to announce that on May 21st, the Company is submitting to the Federal regulator – the Canadian Nuclear Safety Commission (“CNSC”) – responses to the remaining 49 technical review comments received on February 12, 2024 as part of the Federal Environmental Assessment (“EA”) review process for the Company’s 100% owned Rook I Project (the “Project”).

The 49 technical comments represent the remaining aspects of the original 274 questions received from the CNSC from their technical review of the Rook I Project Draft Environmental Impact Statement (“EIS”) submitted by NexGen in June 2022. As part of this submission, NexGen has also submitted a revised Federal EIS to the CNSC as part of the response process.

Leigh Curyer, NexGen’s Chief Executive Officer, commented: “The Company received Provincial EA approval in November 2023 and then submitted responses to the full Federal technical review comments and received ~80% accepted in round 1. The submission of these remaining 49 responses represents another significant milestone in the final advancement of the Federal EA for the Rook I Project.

The NexGen team commends the rigour and diligence of the Federal EA process which formally began 5 years ago with the submission of the Project Description – as it validates the technical robustness of the Project, which, once approved, will be the world’s largest and lowest-cost uranium fuel producer, providing outstanding environmental, social, and economic benefits for current and future generations.

With NexGen’s Federal Licence Application having been accepted by the CNSC in September 2023, and full support and consent for the Project from the four local, Rights-bearing Indigenous Nation partners, we look forward to the successful conclusion of the Federal EA technical review process and the establishment of a Federal Commission Hearing date to conclude the approval process for this generational project, enabling construction and operation of this environmentally elite and fully supported green energy project.”

All four Local Priority Area (“LPA”) Communities – the Clearwater Dene Nation (“CRDN”), Birch Narrows Dene Nation (“BNDN”), Buffalo River Dene Nation (“BRDN”), and Métis Nation – Saskatchewan (“MN-S”) on behalf of MN-S Northern Region 2 (“NR2”) – have formally confirmed their consent and strong support for NexGen’s stewardship of the Rook I Project through the

signing of industry-leading Benefit Agreements. All four have fully signed off on all aspects of the Federal EA process required at this time and are advocating for its imminent approval.

In accordance with established Federal EA process, the CNSC will now conduct a completeness check of NexGen's most recent submission, which will be completed within 30 days. Upon conclusion of the completeness check, technical review of NexGen's comment responses and revised EIS will be undertaken by the CNSC through the Federal-Indigenous Review Team which is prescribed as 60 days. Upon confirmation from the CNSC that all technical comments have been resolved and acceptance of the EIS as final, the CNSC will establish a Federal Commission Hearing date.

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 standards in environmental and social governance. 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 leads the entire mining industry socially, technically and environmentally. 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.

For additional information and media inquiries:

Leigh Curyer
Chief Executive Officer
NexGen Energy Ltd.
+1 604 428 4112
lcuryer@nxe-energy.ca
www.nexgenenergy.ca

Travis McPherson
Chief Commercial Officer

NexGen Energy Ltd.

+1 604 428 4112

tmcpherson@nxe-energy.ca

Monica Kras

Vice President, Corporate Development

NexGen Energy Ltd.

+44 (0) 7307 191933

mkras@nxe-energy.ca

Media Inquiries

+1 604 218 1142

media@nxe-energy.ca

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.