

NexGen Energy (Canada) Ltd.

ARBN 649 325 128

A foreign company registered in its original jurisdiction of British Columbia, Canada as NexGen Energy Ltd.

FOURTH SUPPLEMENTARY PROSPECTUS

1. Important Information

This is a supplementary prospectus (**Fourth Supplementary Prospectus**) which supplements and is intended to be read with the prospectus dated 9 January 2023 (**Original Prospectus**) as supplemented by:

- (a) a refresh supplementary prospectus dated 6 April 2023 (**First Refresh Supplementary Prospectus**);
- (b) a supplementary prospectus dated 1 May 2023 (**First Supplementary Prospectus**);
- (c) a second supplementary prospectus dated 16 June 2023 (**Second Supplementary Prospectus**);
- (d) a second refresh supplementary prospectus dated July 6 2023 (**Second Refresh Supplementary Prospectus**); and
- (e) a third supplementary prospectus dated 29 August 2023 (**Third Supplementary Prospectus**), each of which was issued by NexGen Energy (Canada) Ltd. (ARBN 649 325 128), a foreign company registered in its original jurisdiction of British Columbia, Canada as NexGen Energy Ltd. (British Columbia company incorporation number BC0983846) (**NexGen**).

This Fourth Supplementary Prospectus is dated 3 September 2023 and was lodged with ASIC on that date.

ASIC, the ASX and their respective officers take no responsibility for the contents of this Fourth Supplementary Prospectus.

This Fourth Supplementary Prospectus should be read together with the Original Prospectus, the First Refresh Supplementary Prospectus, the First Supplementary Prospectus, the Second Supplementary Prospectus, the Second Refresh Supplementary Prospectus and the Third Supplementary Prospectus (together, the **Prospectus**). Other than as set out below, all details in relation to the Prospectus remain unchanged. Terms and abbreviations defined in the Prospectus have the same meaning in this Fourth Supplementary Prospectus. If there is any conflict between the Prospectus and this Fourth Supplementary Prospectus, this Fourth Supplementary Prospectus will prevail.

This Fourth Supplementary Prospectus will be issued with the Prospectus as an electronic prospectus, copies of which can be downloaded from <https://www2.asx.com.au/markets/trade-our-cash-market/todays-announcements> under the code "NXG". This is an important document and should be read in its entirety. If you do not understand it, you should consult your professional advisers without delay. NexGen will send a copy of this Fourth Supplementary Prospectus to all applicants who have subscribed for CDIs under the Prospectus to the date of this Fourth Supplementary Prospectus.

2. Purpose of this Fourth Supplementary Prospectus

The purpose of this Fourth Supplementary Prospectus is to provide additional information to investors as set out in Section 4 below.

3. No investor action required

The Directors believe that the changes in this Fourth Supplementary Prospectus are not materially adverse from the point of view of an investor. Accordingly, no additional investor action is required. An investor may apply to be issued CDIs pursuant to the Cleansing Offer in the manner set out in section 1.5 of the Original Prospectus.

4. New Information – NexGen Announces US\$110 Million Convertible Debenture Financing and Strategic Purchase of Common Shares

NexGen has today released the announcement attached to this Fourth Supplementary Prospectus.

The Directors of NexGen are not aware of any other acts, matters or things (not already described in the Prospectus) which may be material to the making of and informed assessment of the effect of the Cleansing Offer on NexGen or the rights attaching to the CDIs.

5. Authorisation and consent to lodgement

This Fourth Supplementary Prospectus is issued by NexGen and its issue has been authorised by a resolution of the Directors.

In accordance with section 720 of the Corporations Act, each Director has consented to the lodgement of this Fourth Supplementary Prospectus with ASIC and has not withdrawn that consent.

Signed for and on behalf of NexGen.

A handwritten signature in black ink, appearing to read 'LR Curyer', with a stylized flourish at the end.

Leigh Curyer
President and Chief Executive Officer
NexGen Energy (Canada) Ltd

Dated: 3 September 2023



NexGen Announces US\$110 Million Convertible Debenture Financing and Strategic Purchase of Common Shares

Vancouver, BC, August 31, 2023 - NexGen Energy Ltd. ("NexGen" or the "Company") (TSX: NXE) (NYSE: NXE) (ASX: NXG) is pleased to announce that it has entered into binding term sheets with Queen's Road Capital Investment Ltd. ("QRC") and Washington H Soul Pattinson and Company Limited ("WHSP") for a private placement (**the "Offering"**) of US\$110 million aggregate principal amount of unsecured convertible debentures (**the "Debentures"**).

The Debentures will be convertible at the holder's option into approximately 16.27 million common shares of NexGen (**the "Common Shares"**).

In addition, WHSP has agreed to purchase 8.7 million outstanding common shares of NexGen from QRC (**the "Pre-Arranged Trade"**), enabling QRC to partially fund its purchase of Debentures.

Leigh Curyer, Chief Executive Officer, commented: "Today's US\$110M financing from two highly respected investors, our long-standing investor in QRC and, the addition of WHSP in Australia, optimally places NexGen to deliver on its stated objectives in the development of the Rook I Project. It is an incredibly exciting time for NexGen as we recently received confirmation of the completion of the Provincial Environmental Assessment Technical Review and submission of the Final Provincial Environmental Impact Statement to the Saskatchewan Ministry of Environment. Further, permitted pre-construction site works are well advanced with the team and all of its stakeholders focused on the responsible delivery of Rook I for the world's energy transition."

Terms of the Debentures

The Debentures will carry a 9.0% coupon (the "Interest") over a 5-year term. The Debentures will be convertible at the holder's option into Common Shares, at a conversion price (the "Conversion Price") per Common Share of US\$6.76 (C\$9.15 per Common Share equivalent incorporating today's exchange rate) representing a 30% premium to the volume-weighted average trading price (the "VWAP") per Common Share on the Toronto Stock Exchange (the "TSX") for the 5-days ending on the day prior to the date of this announcement.

Two-thirds of the Interest (equal to 6% per annum) is payable in cash. One-third of the Interest (equal to 3% per annum) is payable in Common Shares issuable at a price equal to the 20-day VWAP on either the Toronto Stock Exchange or New York Stock Exchange (whichever has the greatest trading volume of Common Shares) ending on, and including, the third trading day prior to the date such interest payment is due.

The Company will be entitled, on or after the third anniversary of the date of the issuance of the Debentures, at any time that the 20-day VWAP on the TSX exceeds 130% of the Conversion Price, to redeem the Debentures at par plus accrued and unpaid Interest.

This is a Designated News Release

Strategic Alignment Provisions

In connection with the Offering, the Company will enter into an investor rights agreement with both QRC and WHSP, containing the same voting alignment, standstill, and transfer restriction covenants as the existing investor rights agreement with QRC dated May 27, 2020. However, these provisions will be revised to apply regardless of the number of Common Shares held, and the restrictions allowing for a sale of Common Shares every thirty days will be limited to 0.5% of the number of Common Shares held.

Use of Proceeds

Proceeds from the Offering will be used to fund the continuing development and further exploration of the Company's mineral properties, and for general corporate purposes.

Conditions

Closing of the Offering is conditional upon completion of the Pre-Arranged Trade and the satisfaction of customary closing conditions, including stock exchange approvals, the completion of definitive documentation, there being no material adverse change in the business of the Company, or a major event of national or international consequence that disrupts the financial markets or the business, operations or affairs of the Company.

Advisors and Legal Counsel

Aitken Mount Capital Partners were advisors to the transaction. Farris LLP, Vancouver provided legal.

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.

Contact Information

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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.