



NexGen Provides Updated Economics for the Rook I Project

- ***Revised Capital Cost C\$2.2 Billion /USD\$1.58 Billion (C\$/US\$ 0.72)***
- ***Average Annual After-Tax Net Cash Flow (Years 1-5) of C\$1.93 Billion (at US\$95/lb U₃O₈)***
- ***Consistent Mine Life and Production Capability up to 30 Million Pounds U₃O₈ Annually***
- ***Elite Environmental Plan Incorporates Reclamation during Operations resulting in minimal C\$70 Million Closure Cost.***

Vancouver, BC, August 1, 2024 – NexGen Energy Ltd. (“NexGen” or the “Company”) (TSX: NXE) (NYSE: NXE) (ASX: NXG) announced today an update to the initial capital, sustaining, and operating cost estimates for the Company’s 100%-owned Rook I Project (or “the Project”). The estimated pre-production capital costs (“CapEx”) are Canadian Dollar (“C\$”) C\$2.2 billion / US Dollar (“USD”) \$1.58BN, with an average cash operating cost (“OpEx”) over the life of mine (“LOM”) estimated at an industry leading C\$13.86/lb / USD\$9.98/lb U₃O₈. Sustaining capital costs (“SusEx”) were also updated and are estimated at C\$785 million (average of ~C\$70 million per year), inclusive of closure costs of approximately C\$70 million. The change in costs reflects both inflationary changes as well as the significant advancement of engineering and procurement, optimized constructability, and enhanced environmental performance.

Unique to a mining project in the Athabasca Basin is the Project’s incorporation of costs associated with the progressive reclamation of a tailings management facility into the CapEx, OpEx and sustaining capital costs, which totals approximately \$900 million of spending over the LOM. The vast majority of Rook I’s mine reclamation will occur concurrently with production through the design incorporating the underground tailings management facility (“UGTMF”). This will enhance the environmental performance of the operation and reduce the risk of ongoing reclamation, costly decommissioning at the end of the production period, and the post-closure risk to the local environment and communities. As a result of this incorporation of reclamation and the UGTMF at the outset of development, full closure costs are set to be approximately C\$70 million at the end of the mine life, materially lower than other uranium mines in Canada, setting a higher standard for environmental performance and the safe disposal of tailings.

Incorporating an average long-term uranium price of approximately USD\$95.00/lb U₃O₈ (UxC average Long-Term prices from 2029 to 2040, as published in June 2024), net of transportation fees, the updated cost estimate results in an After-Tax Net Present Value (8% discount rate) of C\$6.3 billion, and a payback period of approximately 12 months, as shown in the sensitivity table below. Despite increased costs, at USD\$95.00/lb U₃O₈, average annual after-tax net cash flow (“Free Cash Flow”) from the Project (years 1-5) remains materially the same as in the FS (as defined below). As shown in the sensitivity table below, average annual Free Cash Flow is now estimated at C\$1.93 billion versus C\$2.01 billion, demonstrating that the Project is less sensitive to changes in CapEx relative to uranium price.

Sensitivity of Project Economics to Uranium Prices

The sensitivity of the economic model in the FS to the price of uranium is shown below:

	Feasibility Study (2020 Dollars)				Updated/Revised Estimate (2023 Dollars)			
Uranium Price (US\$/lb)	Average Annual Free Cash Flow (Y1 – 5) (C\$ billion)	Payback Period (Years)	Internal Rate of Return ("IRR") (%)	Net Present Value ("NPV") (C\$ billion)	Average Annual Free Cash Flow (Y1 – 5) (C\$ billion)	Payback Period (Years)	Internal Rate of Return ("IRR") (%)	Net Present Value ("NPV") (C\$ billion)
\$150	3.19	0.4	101.8	12.80	3.13	0.7	61	11.52
\$100	2.11	0.6	81.6	8.13	2.04	1.0	46.9	6.79
\$95	2.01	0.6	79.2	7.67	1.93	1.0	45.2	6.32
\$80	1.68	0.7	71.5	6.27	1.61	1.2	39.6	4.89
\$50	1.04	0.9	52.4	3.47	0.97	2.0	25.2	2.10

Notes:

1. The base case for the economic analysis in the FS (the "FS Base Case") is based on, among other things, the timing of a final investment decision and a discount rate of 8%. It assumes that 100% of uranium produced from the Project can be sold at a long-term price of US\$50/lb U₃O₈ at an exchange rate of C\$/US\$ of 1.00:0.75.
2. The Updated/Revised Estimate reflects an internal Company assessment of CapEx and OpEx, as well as other currently expected Project costs, including estimated sustaining capital, royalties, and taxes.
3. As noted in the FS, NPV, and IRR are most sensitive to metal prices, grade, metal recovery, and exchange rates. To demonstrate the sensitivities of NPV and IRR to uranium prices, alternatives to the uranium price assumption used in the FS Base Case are shown in the table for illustrative purposes. Readers are cautioned that such information may not be appropriate for other purposes, including an assessment of expected Project economics. Such illustrative prices were chosen to approximate long-term and various spot price assumptions but are not forecasts of expected uranium prices or prices at which uranium produced from the Project can be sold.
4. There has been no material update to the estimates of Mineral Resources or Mineral Reserves.

Leigh Curyer, Chief Executive Officer, commented: "NexGen's updated CapEx, OpEx and sustaining capital reflect the Company's focus on thorough planning and responsible financial management, ensuring that every aspect of the Project aligns for the development of a truly world-class resources project. The updated capital cost presents an all-encompassing spend to bring the Rook I Project into production based on robust, proven mining and construction methodologies, with a payback period of 12 months. Our commitment to developing this Project to the highest environmental standards ensures sustainable and responsible operations from the outset whilst delivering industry leading profitability and local community consultation and engagement. This includes the incorporation of reclamation activities and the significant associated costs during operations, minimizing future closure liabilities which are estimated at C\$70 million for the Project, and setting a higher standard for environmental performance in the mining industry.

It is a very exciting time at NexGen as the Company advances the finalization of the Federal Environmental Assessment, readies for immediate commencement of construction on final Federal Approval, and in parallel continue to test the recently discovered Patterson Corridor East mineralization 3.5kms east of the Arrow deposit."

The Feasibility Study ("FS" or "Feasibility Study"), published March 2021, estimated CapEx at C\$1.3 billion and average OpEx over the LOM at C\$7.58/lb U₃O₈. The updated CapEx reflects approximately C\$310 million in direct and attributable inflationary increases since 2020, and approximately C\$590 million in increased CapEx from enhancements identified through advanced engineering and procurement activity since March 2021. The updated OpEx estimate reflects an increase of C\$2.65/lb U₃O₈ due to inflationary adjustments and an additional C\$3.63/lb U₃O₈ increase due to advanced design developments, advancement of procurement, and operational and ongoing elite environmental enhancements. The mine life and production profile including capability of up to 30 million

pounds U₃O₈ annually is consistent with the FS. The updated CapEx utilized a P50 contingency which was also consistent with the FS.

The updated costs reflect the advancement of Project engineering from 18% complete at the time of the Company's FS, to approximately 45% complete currently, within an accuracy range of +/- 10%. The Project is ready for major construction activities to commence immediately following final Federal Environmental Assessment approval with critical path detailed engineering and procurement advancing in parallel. Further, the Company is advancing well with the significant build out of the project development team that includes industry experts in shaft sinking, underground mining and development, and surface operations.

The Company is progressing discussions with various prospective financing entities – including commercial lenders, export credit agencies, and alternative sources to secure financing for the Project. The Company is receiving interest in significant new sources of potential project financing which would fully satisfy the capital requirements for the Project in combination with its current cash and liquid investments.

The Company is continually refining the current dollar cost estimates as engineering, procurement, and contracting activities advance over the coming months. In addition, NexGen's internal team is investigating areas of operational improvements, including enhanced recoveries, supplemental energy efficiency initiatives through kinetic heat recovery, and increased automation of material handling and processes throughout the operations.

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 and 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.

The Feasibility Study referred to herein, entitled "Arrow Deposit, Rook I Project, Saskatchewan, NI 43-101 Technical Report on Feasibility Study dated March 10, 2021", has been filed on SEDAR+ (www.sedarplus.ca) and EDGAR (www.sec.gov/edgar.shtml), and is available on the Company'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 estimates for CapEx, OpEx, SusEx and a payback period of 12 months, the appointment of a lead lender group, the availability of financing for the Project, the advancement of detailed engineering and contract negotiations, bolstering the globe's uranium supply chains to meet the rising demand for nuclear energy, the timing and cost of reclamation, including as part of the UGTMF and after-tax free cash flow remaining materially consistent with the FS, Free Cash Flow, Payback Period and IRR relative to various uranium prices, the delivery of clean energy fuel for the future, the development of the largest low cost producing uranium mine globally and incorporating elite standards in environmental and social governance, delivering a project that leads the entire mining industry socially, technically and environmentally, providing generational long-term economic, environmental and social benefits for Saskatchewan, Canada and the world, planned exploration and development activities and budgets, the interpretation of drill results and other geological information, mineral reserve and resource estimates (to the extent they involve estimates of the mineralization that will be encountered if a project is developed), requirements for additional capital, capital costs, operating costs, cash flow estimates, production estimates, the future price of uranium and similar statements relating to the economics of a project, including the Rook I Project. Generally, forward-looking information and statements can be identified by the use of forward-looking terminology 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.

Forward-looking information and statements are based on NexGen's current expectations, beliefs, assumptions, estimates and forecasts about its 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 financing for the Project will be available in a timely manner and on terms acceptable to the Company, the results of planned exploration and development activities will be as anticipated and on time; the price of uranium; the cost of planned exploration and development activities; that, as plans continue to be refined for the development of the Rook I Project, there will be no changes in costs, engineering details or specifications that would materially adversely affect its viability; 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 and development activities will be available on reasonable terms and in a timely manner; that there will be no revocation of government approvals; that general business, economic, competitive, social and political conditions will not change in a material adverse manner; the assumptions underlying the Company's mineral reserve and resource estimates and updated/revised CapEx, OpEx, SusEx, sustaining capital and other costs, and pay back period; assumptions made in the interpretation of drill results and other geological information; the ability to achieve production on the Rook I Project; and other estimates, assumptions and forecasts disclosed in the Feasibility Study for the Rook I Project. Although the assumptions made by the Company in providing forward-looking information or making forward-looking statements were considered reasonable by management at the time they were made, there can be no assurance that such assumptions will prove to be accurate.

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, negative operating cash flow and dependence on third-party financing, uncertainty of additional financing, the risk that pending assay results will not confirm previously announced preliminary results, the imprecision of mineral reserve and resource estimates, the price and appeal of alternate sources of energy, sustained low uranium prices, aboriginal title and consultation issues, development risks, climate change, uninsurable risks, reliance upon key management and other personnel, risks related to title to its properties, information security and cyber threats, failure to manage conflicts of interest, failure to obtain or maintain required permits and licences, changes in laws, regulations and policy, competition for resources, political and regulatory risks, general inflationary pressures, industry and economic factors that may affect the business, and other factors discussed or referred to in the Company's most recent Annual Information Form under "Risk Factors" and management's discussion and analysis under "Other Risks Factors" filed on SEDAR+ at www.sedarplus.ca and 40-F filed on 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.

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 are cautioned not to place undue reliance on forward-looking information or statements due to the inherent uncertainty thereof. 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.