

NexGen Releases 2024 Sustainability Report

Vancouver, BC, June 16, 2025 – NexGen Energy Ltd. ("NexGen" or the "Company") (TSX: NXE) (NYSE: NXE) (ASX: NXG) is proud to announce the release of its 2024 Sustainability Report ("the Report") that covers the period January 1, 2024, to December 31, 2024. The Report marks the fifth year that NexGen has reported on the Company's robust Environmental, Social, and Governance profile. In addition to reporting in accordance with the Global Reporting Initiative ("GRI") Standards, the Report demonstrates alignment with the Task Force of Climate-related Financial Disclosures ("TCFD").

The Report is available on the Company's website: 2024 Sustainability Report

Leigh Curyer, Chief Executive Officer, commented: "2024 proved to be a landmark year for NexGen – one defined by major achievements that bring us to the final stages of delivering the world's largest high-grade uranium project, while delivering the most elite standards of health and safety, environmental protection and social well-being for all of our stakeholders. The exciting new discovery at Patterson Corridor East, further underscores the exceptional prospectivity of our land package and the long-term growth potential for the Company. With each milestone, we are not only advancing the Rook I Project but also shaping the landscape of responsible resource development. As we move toward becoming one of the most strategic mining companies, our steadfast commitment to sustainable development, elite environmental stewardship, and genuine community partnerships remains at the core of everything we do."

Key Highlights from the Report:

Completion of Federal Environmental Assessment Technical Review and Setting of Hearing Dates

NexGen achieved a historic regulatory milestone, successfully completing the Canadian Nuclear Safety Commission ("CNSC") Environmental Assessment ("EA") technical review in November of 2024 – a first for a greenfield uranium mine and mill in Canada in 20 years. This follows the completion of the Provincial EA in November 2023. The Company is now preparing for the CNSC Commission Hearing currently scheduled to be complete in February 2026, and pending a positive EA decision, is ready to immediately commence construction.

2024 ABEX Community Involvement Award

NexGen was honoured with the 2024 ABEX Community Involvement Award from the Saskatchewan Chamber of Commerce for its genuine approach to building strong resilient communities through innovative and inclusive programs that are delivering a positive impact in the region.

Expanded Training and Education Programs

Expansion of the Company's education and training initiatives included the launch of NexGen's 'Pathways to Your Future' career development program. This, alongside other NexGen-initiated and funded programs have equipped over 500 local participants in the Local Priority Area ("LPA") with essential technical and workplace skills for careers in uranium mining since 2023.

Local Employment and Procurement Opportunities

Prioritizing communities within the Local Priority Area ("LPA"), NexGen exceeded its aspirational employment and procurement targets, with 82% of Rook I site employees being LPA residents, and 94% of Rook I cash expenditure awarded to LPA suppliers.

Environmental Performance Through Energy Efficiency

NexGen optimized power generation at the Rook I Project through the implementation of a centralized power generation system and the installation of a pilot 24-kilowatt solar power system.

Active Environmental Management During Exploration

NexGen minimized its environmental footprint during exploration activity through a single area focused drill program, resulting in a 73% reduction in overall land disturbance. Additionally, the Company reclaimed 83% of land disturbed by exploration activity in 2024.

Economic Impact Update

Building on the updated initial capital, and sustaining and operating costs released during 2024, an economic impact study of the Rook I Project points to the significant scale of its potential positive effects. The forecasted total economic impact to the Province of Saskatchewan and Canada over the development and 11-year production period is \$37 billion, with an average of 1,400 annual total jobs. Importantly, the Project is being permitted for a 24-year mine life, underscoring the opportunity for potentially greater long-term benefits, both economically and socially, well beyond the initial forecast.

Climate-Related Disclosure Alignment ("TCFD")

NexGen completed a comprehensive TCFD gap analysis, followed by a climate-related risk assessment that evaluated physical and transition risks over short, medium, and long-term time horizons, ensuring that climate-related risks and opportunities are effectively integrated into NexGen's broader risk management and strategic planning.

The 2024 Report has been prepared in accordance with the GRI Standards, in alignment with the TCFD and has been reviewed and approved by NexGen's Executive Team, the Sustainability Committee as well as the full Board of Directors. NexGen will continue to optimize its sustainability reporting in line with the Company's focus on accountability and transparency.

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.

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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 setting industry benchmarks with innovative and sustainable mining solutions and reflecting ongoing commitments to maximizing benefits to partners and stakeholders, the successful execution of the shaft sinking contract, the seamless transition to major construction following anticipated federal Environmental Assessment and licence approvals, 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, third-party contractors, including Thyssen, will perform their contracts as expected and on time, 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; 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, exploration and 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. 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 resuinformation or events except as required by applicable securities laws.	ılt of new