



February 18, 2021

## **GOVIX UPDATES MADAOUELA PROJECT PRE-FEASIBILITY STUDY**

### **START-UP CAPITAL AND OPERATING COSTS REDUCED**

VANCOUVER, CANADA – **GoviEx Uranium Inc. (TSX-V: GXU; OTCQB: GVXXF)** (“GoviEx or the **Company**”) is pleased to announce the results of its updated pre-feasibility study (“**Updated PFS**”) achieving key objectives set by the Company designed to advance the Madaouela Uranium Project (the “**Project**”) towards Project financing and development.

#### Key Highlights:

- Open pit mining in the early years with CapEx reduced by 15% and OpEx down by 20%
- Captive water source, consumption reduced by 66%
- Grid level electrical power existing within Project boundary
- Prioritize local skilled labour and local vendors
- Straightforward industry standard process design - reducing construction and operational risks
- Mining Permit and Environmental Certificate already secured
- Potential to service debt of USD 150-180 million
- Ability to fast track feasibility study in 2021 to target rapid development
- Next steps to accelerate project financing and offtake options

The Updated PFS succeeded in delivering a project that is technically robust and significantly simplified, reducing development and operational risk. The mining operations at the Project are planned to commence by open pit at the Miriam deposit in order to improve cash flows in the early years of the Project, while achieving this at a much lower uranium price with potential for attractive debt financing. The Updated PFS on the Project now accounts for five years of inflation and currently quoted costings since the previous pre-feasibility study issued in 2015<sup>(1)</sup> (the “**2015 PFS**”).

“We are delighted with the series of elegant engineering solutions our technical team has achieved under the leadership of our CEO, Daniel Major, to place the Madaouela Project in pole position and to potentially bring Madaouela online as one of the first new mines developed in this exciting new uranium cycle” said Govind Friedland, GoviEx’s Executive Chairman.

“The Updated PFS further indicates the technical strength of GoviEx’s main uranium project in Africa” commented Daniel Major, GoviEx’s Chief Executive Officer. “Lower costs, lower technical risk and financing potential are the main results from this study. The current structural deficit in the uranium market requires that new mines are developed in the near term to continue the generation of carbon-free nuclear power. GoviEx has taken another important step towards further developing our mining plans through completing this Updated PFS.”

Mineral Reserves for the Project have been defined based on a forecast price of USD 55 per pound of U3O8.

GoviEx’s internal technical team, working closely with consultants SRK Consulting (UK) Limited and SGS Bateman (Pty) Ltd., has succeeded in simplifying the process plant design, reducing the technical risks of commercially untested options considered in the 2015 PFS, while at the same time increasing uranium recovery and reducing unit operating costs. Uranium recovery is reported as 94.5% for the open pit ore and 92.5% for the underground ore, while molybdenum recovery is



improved from 67.0% to 84.7%, and processing life of mine costs have been reduced by 8% or USD 2 per pound of U3O8.

The mining rate for the Miriam open pit deposit has been rescheduled to ensure the tenor covers any potential debt financing for the Project development.

Operating Cash Costs, excluding royalties and including molybdenum by-product credits, over the first four years of the mine life are reduced by 20% or USD 4.7 per pound to USD 18.3 per pound of U3O8, and capital costs have been reduced by 8% or USD 29 million.

Under the Updated PFS, the open pit alone has the potential to service debt of USD 150-180 million at a U3O8 price of USD 50-55 per pound, as modelled by the Company's debt advisors.

The results of the Updated PFS will be reported in a technical report in accordance with Canadian *National Instrument 43-101 Standards of Disclosure for Mineral Projects*, which will be available on the Company's website ([www.goviex.com](http://www.goviex.com)) and under the Company's profile on SEDAR ([www.sedar.com](http://www.sedar.com)) within the next 45 days.

#### Updated PFS Overview

The Project is situated in the Agadez region in the northern part of the Republic of Niger adjacent to the existing Orano SA operations of Somair and Cominak, and benefits from the existing infrastructure and an experienced uranium mining labour force. GoviEx operates the Project and holds an 80% interest with the remaining 20% held by the Republic of Niger, of which 10% represents a free-carry. The Project also includes a series of other deposits that are anticipated to be mined by either open pit or underground methods.

Calculations for the Mineral Reserves for the Project, reported in accordance with the CIM standards and guidelines, under the Updated PFS were based on a USD 55 per pound U3O8 price. Total Probable Mineral reserves are reported as 24.9 million run-of-mine ore tonnes with an average ore grade of 0.85 kg/tU, the contained uranium of 21,054 tU (54.7 Mlb U3O8).

Project Probable Mineral Reserves as at February 18, 2021

	Classification	Cut-off (kg/tU)	ROM Mt	Grade (kg/tU)	Tonnes U
Open Pit					
Miriam **	Probable	0.3	7.8	0.85	6,601
Underground					
Marianne-Marylin ("M&M") *	Probable	0.6	10.5	0.88	9,180
MNSE-Maryvonne *	Probable	0.6	6.7	0.79	5,273
Total	Probable		24.9	0.85	21,054

\* Underground Mineral Reserves for M&M and MSNE-Maryvonne are reported at a cut-off grade of 0.60 kg/t eU. Cut-off grades are based on a price of USD 50 /lb of U<sub>3</sub>O<sub>8</sub> and uranium recoveries of 89.3%, without considering revenues from other metals. Note Mineral Reserves include both Measured and Indicated Resources.



\*\*Open Pit Mineral Reserves are reported within a designed pit shell at a cut-off grade of 0.3 kg/t eU. Cut-off grades are based on a price of USD 50 /lb of U<sub>3</sub>O<sub>8</sub> and uranium recoveries of 93.0%, without considering revenues from other metals. Note Mineral Reserves include both Measured and Indicated Resources.

The Qualified Person responsible for the declaration of Mineral Reserves is Tim McGurk, Corporate Consultant (Mining). Tim is a full time employee of SRK Consulting (UK) Ltd, a Fellow of the IOM3 and has the required experience in reporting Mineral Reserve statement relevant to the Madaouela Project.

### Open Pit Mining

Mining operations for the Project are planned to be based initially on standard truck and shovel open pit mining for the Miriam deposit at a planned rate of 1 Mt per annum of ore feed to the process plant, which results in an initial six years of mining operations at Miriam. This production rate ensures that the life of the Miriam deposit would exceed the expected potential debt tenor.

The life of pit stripping ratio was reduced to 9.9:1 from the 12:1 set out in the 2015 PFS, partly due to steeper final pit walls at 53 degrees versus 51 degrees previously used in the 2015 PFS. Post capital pre-strip stripping ratio was reduced from 8:1 to 7:1. Mining operating and capital costs have been updated with a high degree of confidence as they are based on current supplier quotes to define owner operator operating costs of USD 2.3/tonne mined.

### Underground Mining

The M&M and MNSE-Maryvonne deposits are planned to be mined by room and pillar, similar to the adjacent Orano S.A.'s Cominak mine. Ore mining is designed to be undertaken at a rate of approximately 1.4 Mt per annum. Mined ore is to be fed onto a conveyor via feed breakers at each panel. Run of mine ore is then planned to be sorted by X-ray fluorescence ("XRF") to remove waste dilution. Post XRF sorted ore is designed to be trucked to the process plant at a rate of 1.0 Mtpa. Underground mining operations are forecast to mine at an average of USD 31.71 /ROM tonne.

### Mineral Processing

Process plant and associated mine infrastructure has been moved from its previously planned site next to the proposed M&M underground works to adjacent the Miriam open pit in order to reduce the additional ore hauling costs in the early years.

Due to the insufficient commercial operations of Ablation and Solvent Extraction ("SX") as process routes, which are contemplated in the 2015 PFS, the Company undertook a considerable program of processing test-work with an aim to reduce the technical risks associated with the application of these two process routes, targeting ore upgrading, acid consumption reduction and general reduction of costs. The test-work completed included: de-sliming, Energy X-ray Transmission ("XRT") sensor sorting, gravity, nano-filtration, Ion Exchange ("IX") and flotation.

In addition, work focused on the differing mineralogy of the Miriam deposit geology in comparison to that of the M&M deposit, from which historical bulk samples were used to define metallurgical test work. Substantially lower calcite and dolomite composition of the Miriam ore relative to M&M ore results in a markedly lower forecast acid consumption.

Consequently, a pragmatic approach was adopted to utilize a simple and proven flowsheet including whole ore leaching to treat the ore arising from the open-cast Miriam operation, which has relatively



low gangue-acid consumers (“GAC”), and then add XRF based ore sorting and reverse flotation in later years, when the underground ore with higher acid consumption is treated. The resulting simplified flowsheet adheres to the following steps:

During the early years when low GAC ore from the Miriam deposit is to be treated:

- Secondary crushing and milling
- Two-stage tank acid leaching of the whole ore to produce a pregnant leach solution containing uranium molybdenum, iron and other impurities
- Belt filtration for leach residue dewatering, followed by tailings disposal by dry stacking
- Recovery of molybdenum by IX using Purolite S970 resin
- Recovery of uranium by SX using Alamine 336
- Precipitation of uranium using ammonia

The resultant process plant design simultaneously reduces acid and water consumption while also improving the uranium and molybdenum recovery.

**Key Process Design Parameters**

	<b>Parameters</b>
Annual ore feed to process plant	1,000,000 tpa
Uranium recovery	94.5% O/P, 92.5% U/G
Molybdenum recovery	84.7%
Acid Consumption per tonne ore feed	30.5 kg/t
Raw Water Feed	102 m3/hr

As a result of the revision in ore reserves and resulting associated mining and operations, the life of mine operations for the Project is forecast to last 20 years, producing an estimated total uranium sales of 49.65 Mlbs U3O8, averaging 2.48 Milb U3O8 per annum life of mine.

The simplification of the process flowsheet and the extensive level of test work already completed by the Company readily translates to a feasibility study that should require very limited confirmatory test work, and any test work that will be required, will likely focus on optimization of the leaching and ion exchange recovery processes.

The Updated PFS includes a high-level of detail on all aspects of other costs of the Project. This includes detailed quotations covering security operations, on-site administration costs and, importantly, sales and transport costs to North America and Europe of finished product. The table below summarizes unit operating costs of production for the initial four years of operation and life of mine. The Company reports that for the first four years of operation, the cash operating costs, excluding royalties and including credits for molybdenum, have been reduced by approximately 20% or USD 4.5 per pound of U3O8 sales to USD 18.3 per pound of U3O8 sales, and life of mine are reduced 8% to USD 22.2 per pound of U3O8.

### Unit Operating Costs by Cost Section

	Year 1 - 4 USD/lb U3O8	LOM USD/lb U3O8
Mining	10.42	13.93
Processing	9.75	10.34
Tailings Disposal	0.47	0.49
Water Supply	0.22	0.24
EIA	0.04	0.04
Site G&A and Infrastructure	1.60	1.61
In Country and Corporate Overheads	0.83	0.89
Transport of U3O8	0.44	0.44
Molybdenum Credit	(5.52)	(5.81)
<b>Total Operating Costs</b>	<b>18.26</b>	<b>22.18</b>

The table below shows the proposed capital requirements of the Project's initial development and remaining life of mine sustaining capital costs. The majority of sustaining costs are related to the development costs associated with the M&M and MNSE-Maryvonne deposits.

### Capital Costs for the Project

<b>(USDm)</b>	Initial Capital	Sustaining Capital
Pre-Strip	61.09	
Mining	37.96	276.45
Processing	209.00	15.07
Tailings	3.15	4.88
Infrastructure	25.10	-
Water	2.00	4.59
Owners	8.96	-
	<b>347.26</b>	<b>300.98</b>

A contingency of 10% is included in the capital figure quoted above.

The benefits of capital cost optimisation and the delay in the development in underground mines results in a projected USD 66 million reduction in capital over the first five years and contemplates that the Project has an undiscounted payback by year 5 of commercial production.

Based on a uranium price of USD 55/lb U3O8 over the life of mine, the Project is forecast to produce a USD 525 million in free cash flow, including capital expenditure, and is forecast to produce an annual average of USD 70 million EBITDA.



Net Present Value (USDm) and Internal Rate of Return (%)

USD/lb U3O8	NPV 8%	IRR%
55	117	13.7
60	193	17.0
70	336	23.1

The Updated PFS focused on improving the Project with a number of key targets that the Company was seeking to achieve and, on balance, these targets have been achieved and include:

- Ensure the Miriam open mining pit covers any potential debt tenor
- Simplify and reduced the technical risk associated the process design
- Reduce the operating and capital costs of the project from that set out in the 2015 PFS
- Improve the level of detail of the project, and ensure contingency coverage
- Simplify the requirement for completion of a feasibility study

In addition, the strength of the Project is highlighted by its potential to service USD 150-180 million of debt finance based on a uranium price of USD 50-55/lb U3O8 and using conservative debt covenants.

### **Qualified Person**

The scientific and technical information in this release has been reviewed and approved by Dr. Rob Bowell, a chartered chemist of the Royal Society of Chemistry, a chartered geologist of the Geological Society of London, and a Fellow of the Institute of Mining, Metallurgy and Materials, who is an independent Qualified Person under the terms of NI 43-101 for uranium deposits. Mr. Bowell has verified the data disclosed in this news release.

Note 1. An independent NI 43-101 technical report was prepared for the Madaouela Project in 2015 to a prefeasibility level of confidence. The report titled "An Updated Integrated Development Plan for the Madaouela Project, Niger" has an effective date of August 11, 2015, and a revision date of August 20, 2015, and is available at GoviEx's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

*Neither the TSX Venture Exchange nor the Investment Industry Regulatory Organization of Canada accepts responsibility for the adequacy or accuracy of this release.*

### **About GoviEx Uranium**

GoviEx is a mineral resource company focused on the exploration and development of uranium properties in Africa. GoviEx's principal objective is to become a significant uranium producer through the continued exploration and development of its flagship mine-permitted Madaouela Project in Niger, its mine-permitted Mutanga Project in Zambia, and its multi-element Falea Project in Mali.



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## Cautionary Statement Regarding Forward-Looking Statements

This news release may contain forward-looking information within the meaning of applicable securities laws. All information and statements other than statements of current or historical facts contained in this news release are forward-looking information.

Forward-looking statements are subject to various risks and uncertainties concerning the specific factors disclosed here and elsewhere in GoviEx's periodic filings with Canadian securities regulators. When used in this news release, words such as "will", "could", "plan", "estimate", "expect", "intend", "may", "potential", "should," and similar expressions, are forward-looking statements. Information provided in this document is necessarily summarized and may not contain all available material information.

Forward-looking statements include those in relation to, (i) that the Updated PFS will advance the Project towards Project financing and development; (ii) the method and timing of any development and mining operations at the Project; (iii) the potential to bring the Project online as one of the first new mines developed in this exciting new uranium cycle; and (iv) that the open pit alone has the potential to service debt of USD 150-180 million at a U3O8 price of USD 50-55 per pound.

Although the Company believes the expectations reflected in such forward-looking statements are based on reasonable assumptions, it can give no assurances that its expectations will be achieved. Such assumptions, which may prove incorrect, include the following: (i) that the Updated PFS will advance the Project towards Project financing and development; (ii) that the current uranium upcycle will continue and expand; (iii) that the integration of nuclear power into power grids world-wide will continue as a clean energy alternative; and (iv) that the price of uranium will remain sufficiently high and the costs of advancing the Company's mining projects will remain sufficiently low so as to permit GoviEx to implement its business plans in a profitable manner.

Factors that could cause actual results to differ materially from expectations include (i) that the market will not respond as anticipated to the Updated PFS; (ii) a regression in the uranium market price; (iii) inability or unwillingness of include or increase nuclear power generation by major markets; (iv) potential delays due to COVID-19 restrictions; (v) the failure of the Company's projects, for technical, logistical, labour-relations, or other reasons; (vi) a decrease in the price of uranium below what is necessary to sustain the Company's operations; (vii) an increase in the Company's operating costs above what is necessary to sustain its operations; (viii) accidents, labour disputes, or the materialization of similar risks; (ix) a deterioration in capital market conditions that prevents the Company from raising the funds it requires on a timely basis; and (x) generally, the Company's inability to develop and implement a successful business plan for any reason.

In addition, the factors described or referred to in the section entitled "Financial Risks and Management Objectives" in the MD&A for the year ended December 31, 2019, of GoviEx, which is available on the SEDAR website at [www.sedar.com](http://www.sedar.com), should be reviewed in conjunction with the information found in this news release.



Although GoviEx has attempted to identify important factors that could cause actual results, performance, or achievements to differ materially from those contained in the forward- looking statements, there can be other factors that cause results, performance, or achievements not to be as anticipated, estimated, or intended. There can be no assurance that such information will prove to be accurate or that management's expectations or estimates of future developments, circumstances, or results will materialize. As a result of these risks and uncertainties, no assurance can be given that any events anticipated by the forward-looking information in this news release will transpire or occur, or, if any of them do so, what benefits that GoviEx will derive therefrom. Accordingly, readers should not place undue reliance on forward-looking statements. The forward-looking statements in this news release are made as of the date of this news release, and GoviEx disclaims any intention or obligation to update or revise such information, except as required by applicable law.