

Uranium Energy Corp Reports S-K 1300 Initial Assessment and Economic Study for the Alto Paraná Titanium Project

Corpus Christi, TX, November 13, 2023 - Uranium Energy Corp (NYSE American: UEC, the “Company” or “UEC” - <https://www.commodity-tv.com/ondemand/companies/profil/uranium-energy-corp/>) is pleased to announce that it has filed an Initial Assessment Technical Report Summary (“TRS”) in accordance with Item 1302 of Regulation S-K (“S-K 1300”) on EDGAR disclosing Mineral Resources and an economic assessment for the Company’s 100% owned Alto Paraná Titanium Project located in Paraguay (the “Project” or the “Alto Paraná Project”).

Key Highlights

- **Alto Paraná Titanium Project is a world-class project with a combined Regional Resource of 3.6 billion tonnes, grading at 7.3% TiO₂.**
- **The TRS and economic assessment considered two scenarios using Inferred and Indicated Resources:**
 1. **NPV₈ of \$419 million and a 21% post-tax IRR, utilizing less than 0.2% of the Regional Resource per annum; and**
 2. **NPV₈ of \$1.55 billion and a 25% post-tax IRR, utilizing less than 0.7% of the Regional Resource per annum.**
- **The TRS and economic assessment was co-authored by TZ Minerals International Pty Ltd (TZMI), a global, independent consulting and publishing company which specialises in the mineral sands, titanium dioxide and coatings industries.**
- **UEC will commence a global strategic review process to determine the best value-enhancing option for Alto Paraná.**

Amir Adnani, UEC President and CEO, stated: “*UEC is a uranium focused company and through our presence and uranium exploration activities in Paraguay since 2012 we identified a unique opportunity to acquire the world-class Alto Paraná Titanium Project in 2017 for a nominal investment.*”

We are delighted to present an initial economic evaluation of the Project that provides a pathway forward in unlocking its substantial value. The study confirms Alto Paraná as one of the highest grade and largest known ilmenite deposits on the globe with compelling economics.

We are looking forward to the next steps in our monetization strategy and plan to retain a financial advisor to conduct a global strategic review, with the aim of maximizing the value of this world-class project for UEC shareholders, stakeholders and the country of Paraguay.”

Background:

- Total Alto Paraná Titanium Project Regional Resources are 3.6 billion tonnes grading at 7.3% TiO₂ (titanium dioxide) with an average thickness of 6.3 meters and no overburden (see Table 1 below).
- Following the acquisition of the Project in 2017 from CIC Resources, UEC has undertaken additional delineation drilling during 2019 through 2023 and further process test work to increase the confidence level of the resource and process.
- UEC has completed this S-K 1300 TRS and economic assessment with the team at TZ Minerals International Pty Ltd. (“TZMI”), a global, independent consultant which specialises in mineral sands, titanium dioxide and coatings industries. TZMI fulfilled the role of Qualified Person under S-K 1300.
- The Alto Paraná Titanium Project Initial Assessment examined a base case and a more tentative stretch case for production of high titania slag and high purity pig iron.
- The base case design (~150,000 tonnes per annum (“tpa”) high titania slag and ~100,000 tpa high purity pig iron), using Inferred and Indicated Resources produced the following results:
 - \$419 million post-tax net present value (“NPV”) using an 8% discount rate;
 - A 21% internal rate of return (“IRR”);
 - Startup capital expenditures of \$338 million and real after-tax payback of 4.7 years;
 - An average life of mine operating cost of \$712 per tonne of slag before pig iron credit over the 23 years modelled;
 - Average life of mine annual revenue of \$200 million;
 - A revenue to cash cost ratio of 2.2; and
 - Utilizing less than 0.2% of the available Regional Resource per annum.
- The stretch production case design (~500,000 tpa high titania slag and ~320,000 tpa high purity pig iron), examined in less detail and with less certainty regarding the resource and market availability, using Inferred and Indicated Resources produced the following outcomes:
 - \$1.55 billion post-tax NPV using an 8% discount rate;
 - A 25% IRR;

- Startup capital expenditures of \$918 million and real after-tax payback of 4.2 years;
 - An average life of mine operating cost of \$681 per tonne of slag before pig iron credit over the 23 years modelled;
 - Average life of mine annual revenue of \$652 million;
 - A revenue to cash cost ratio of 2.3; and
 - Utilizing less than 0.7% of the available Regional Resource per annum.
- The Project is planned to be powered by low-cost renewable power from the world's second largest hydro-electric power infrastructure (Itaipu), < 25km from the proposed smelter site.
 - The estimated carbon intensity is below 0.6t CO₂e/tonne of final product, less than half that of the next lowest ilmenite smelting operation considered in the study.
 - The Project is 100% owned by UEC's wholly owned subsidiary, CIC Resources (Paraguay) Inc., and is located within Eastern Paraguay, near established logistical infrastructure.

Jacob Deysel, UEC VP for Heavy Minerals, leading the Alto Paraná economic study and next steps, stated: *“Alto Paraná is a best-in-class titanium Project with substantial resources, relatively low environmental impact, low greenhouse gas footprint, exceptional lifespan, located near supportive infrastructure in a mining friendly jurisdiction and well supported by market fundamentals. This Initial Assessment TRS marks an important step in our efforts to capture the value from this heavy mineral asset in Paraguay. It has upgraded the Alto Paraná resource, refined the technical approach to the development of the Project and the financial assessment shows robust financial returns.*

In advancing the project further, we are pleased to employ a dedicated heavy minerals team that includes well-respected experts in the heavy minerals industry, including, Ian Egan (Marketing Consultant) and Colin Rothnie (Geologist) together with specialist consultant, TZ Minerals International Pty Ltd (TZMI). The Project's excellent economic analysis and resources are solid precursors that provide UEC with various options in our strategy to enhance the value of the Project.”

About the Alto Paraná Project

The Alto Paraná Project is one of the world's highest-grade and largest ilmenite deposits with a combined Regional Resource of 3.6 billion tonnes grading at 7.3% TiO₂. Mineralization occurs at the surface, with an average thickness of 6.3 meters. Future expanded development and mining can benefit from the highly reliable and accessible infrastructure in the area with proximity to a major hydroelectric power source and various bulk commodity transport routes (see Figure 1 below). Prior to UEC's acquisition of the Alto Paraná Project, approximately

\$25 million was invested in the Project, including pilot testing from mining through to the smelting processes.



Figure 1 – UEC’s Alto Paraná Titanium Project

As part of the recent Project development, infill drilling has been undertaken in the initial target mining area which has improved the current resource classifications (see Table 1 below). Both in-field and laboratory scale test work were carried out to further improve and simplify the previously proven flowsheet for the Project. The field work and resource estimate were overseen by Colin Rothnie, BSc Hons (Geology), MAusIMM, (201546), employed by UEC as a consulting geologist and a Qualified Person for the TRS. The TRS was co-authored by TZMI, an independent, third-party consulting firm comprised of industry experts, such as professional metallurgists and professional engineers. TZMI professionals fulfill the requirements to be a “Qualified Person” for the purposes of S-K 1300.

Table 1 – UEC’s Alto Paraná Resource

Zone (Model)	Resource category	Volume (Mm³)	Tonnes (Mt)	Ilmenite^{1,2}	Whole rock TiO₂
MYNM Regional ^{3,4}	Inferred	2,900	3,500		7.3%
Block E1 (E1E)	Indicated	28	34	4.9%	7.5%
Block A (A5C)	Indicated	30	36	4.8%	7.7%
Block A (A5C) ⁴	Inferred	67	80		7.7%
TOTAL³		3,000	3,600		7.3%

Notes:

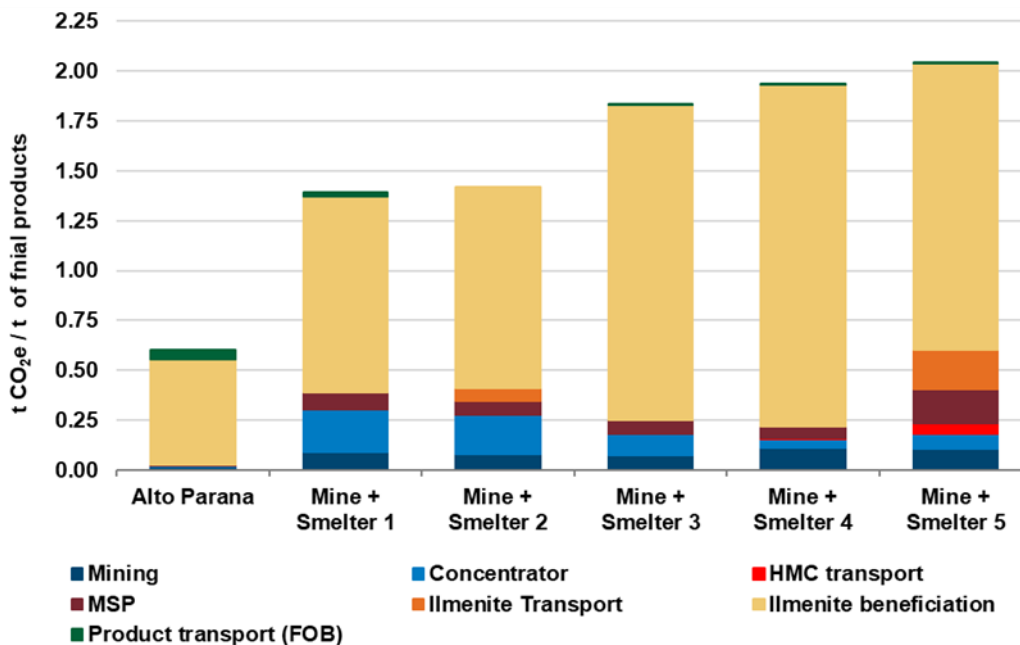
1. Ilmenite: ‘heavy mineral’ particles between 45µm and 1mm, denser than 2.8g/cm³ containing an average of 50% TiO₂
2. All grades are expressed as in situ grades.
3. Estimates for the MYNM Regional Resource and the Total are rounded to two significant figures, as appropriate for Inferred Resources.
4. On the basis of sampling and comparison assays done to date it is estimated the Inferred Resources contain between 4 and 5% ilmenite.
5. A cut-off grade of 2% ilmenite has been applied where the ilmenite grade is known, otherwise whole rock TiO₂ of 5.75%.

Economic Analysis

The TRS demonstrates the potential for the Alto Paraná Project to be a significant high titania slag and high purity pig iron producer which is expected to rank in the first quartile of the TZMI long-term industry revenue to cash cost ratio curve, with exceptional low greenhouse gas emission intensity (see Figure 2 below). Among other matters, it highlights six key areas of refinement over previous studies, being: the resource; the flowsheet; tailings disposal; product marketing; environmental aspects; and financial modelling; with the following results:

- A base case after-tax IRR of 21% and an NPV after-tax of \$419 million using Inferred and Indicated Resources:
 - Initial design production capacity of approximately 150,000 tonnes per annum of high titania slag and 100,000 tonnes per annum of high purity pig iron.
 - An initial mine life of 23 years with potential for significant expansion and extension;
 - Startup capital expenditures of \$338 million;
 - A real after-tax payback of 4.7 years;
 - An average life of mine operating cost of \$712 per tonne of slag before pig iron credit;
 - Average life of mine annual revenue of \$200 million;

- A revenue to cash cost ratio of 2.2, likely placing it in the first quartile of the TZMI revenue to cash cost ratio curve; and
- The lowest greenhouse gas emissions per tonne of final products compared to five existing ilmenite smelters considered in the analysis; and
- The stretch production case using Inferred and Indicated Resources produces significant improved economics with an after-tax IRR of 25% and an NPV after-tax of \$1.55 billion.
- In the base case economic analysis 58% of the resources are Inferred and in the stretch case 86% of the resources are Inferred.
- The economic assessments are preliminary in nature, they include Inferred Mineral Resources that are considered too speculative geologically to have modifying factors applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that these economic assessments will be realized.



Notes:

1. The TZMI industry GHG curve that is used in the comparison has been produced as part of the annual Feedstock Cost Study Report published by TZMI. The Feedstock Cost Study reviews the costs, revenue, production and Scope 1, Scope 2 and limited Scope 3 (feedstock transport only) GHG emissions data for producers across the titanium feedstock sector with 36 operations included in the 2022 study.
2. Based on - Greenhouse Gas Protocol “Technical Guidance for Calculating Scope 3 Emissions (Version1)” for transport of ilmenite

Figure 2 – Projected Greenhouse gas emissions per tonne of final product

The Alto Paraná Project is well supported by current market fundamentals. Chloride slag, the primary product of the Alto Paraná Project, is anticipated to be a key beneficiary of the long-

term structural deficit in natural rutile to supply high-grade feedstock to chloride pigment producers. TZMI forecasts demand growth for chloride slag in TiO₂ pigment end-use markets to show a Compound Annual Growth Rate of 7.7% from 2022 to 2030 (March 2023 Estimate).

In due course, it is expected that additional regional drilling will be completed such that the current resource estimate may be upgraded for the purpose of potentially initiating a Preliminary Feasibility Study.

The technical information in this news release has been reviewed and approved by Colin Rothnie, BSc Hons (Geology), MAusIMM, (201546), employed by UEC as a consulting geologist and a Qualified Person for the TRS, and by TZMI, an independent, third-party consulting firm comprised of industry experts, such as professional metallurgists and professional engineers. TZMI professionals fulfill the requirements to be a “qualified person” for the purposes of S-K 1300.

About Uranium Energy Corp

Uranium Energy Corp is the fastest growing supplier of the fuel for the green energy transition to a low carbon future. UEC is the largest, diversified North American focused uranium company, advancing the next generation of low-cost, environmentally friendly ISR mining uranium projects in the United States and high-grade conventional projects in Canada. The Company has two production-ready ISR hub and spoke platforms in South Texas and Wyoming. These two production platforms are anchored by fully operational central processing plants and served by seven U.S. ISR uranium projects with all their major permits in place. Additionally, the Company has diversified uranium holdings including: (1) one of the largest physical uranium portfolios of U.S. warehoused U₃O₈; (2) a major equity stake in Uranium Royalty Corp., the only royalty company in the sector; and (3) a Western Hemisphere pipeline of resource stage uranium projects. The Company's operations are managed by professionals with decades of hands-on experience in the key facets of uranium exploration, development and mining.

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