

AMERICA'S EMERGING URANUM PRODUCER

Corporate Presentation – January 2021



URANIUM ENERGY CORP | NYSE AMERICAN: UEC | URANIUMENERGY.COM

Disclaimer

Statements contained in this presentation which are not historical facts are forward-looking statements that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. Factors that could cause such differences, without limiting the generality of the following, include: risks inherent in exploration activities; volatility and sensitivity to market prices for uranium; volatility and sensitivity to capital market fluctuations; the impact of exploration competition; the ability to raise funds through private or public equity financings; imprecision in resource and reserve estimates; environmental and safety risks including increased regulatory burdens; unexpected geological or hydrological conditions; a possible deterioration in political support for nuclear energy; changes in government regulations and policies, including trade laws and policies; demand for nuclear power; failure to obtain necessary permits and approvals from government authorities; weather and other natural phenomena; and other exploration, development, operating, financial market and regulatory risks. Although Uranium Energy Corp believes that the assumptions inherent in the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date of this release. Uranium Energy Corp. disclaims any intention or obligation to update or revise any forwardlooking statement, whether as a result of new information, future event or otherwise.'

Notice to U.S. Investors: The mineral resources referred to herein have been estimated in accordance with the definition standards on mineral resources of the Canadian Institute of Mining, Metallurgy and Petroleum referred to in NI 43-101 and are not compliant with U.S. Securities and Exchange Commission (the "SEC") Industry Guide 7 guidelines. In addition,

measured mineral resources, indicated mineral resources and inferred mineral resources, while recognized and required by Canadian regulations, are not defined terms under SEC Industry Guide 7 and are normally not permitted to be used in reports and registration statements filed with the SEC. Accordingly, we have not reported them in the United States. Investors are cautioned not to assume that any part or all of the mineral resources in these categories will ever be converted into mineral reserves. These terms have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. In particular, it should be noted that mineral resources which are not mineral reserves do not have demonstrated economic viability. It cannot be assumed that all or any part of measured mineral resources, indicated mineral resources or inferred mineral resources will ever be upgraded to a higher category. In accordance with Canadian rules, estimates of inferred mineral resources cannot form the basis of feasibility or other economic studies. Investors are cautioned not to assume that any part of the reported measured mineral resources, indicated mineral resources or inferred mineral resources referred to herein are economically or legally mineable.

Exploration Target Disclosure: In the Company's subject technical report all tonnages, grade, and contained pounds of uranium should not be construed to reflect a calculated mineral resource (inferred, indicated, or measured). The potential quantities and grades, as stated in the technical report, are conceptual in nature and there has been insufficient work to date to define a NI 43-101 compliant resource. Furthermore, it is uncertain if additional exploration will result in the discovery of an economic mineral resource on the project.



Licensed Low-Cost U.S. ISR Projects

Operational Infrastructure – Ready to Ramp Up

PRODUCTION READY Proven U.S. Producer

U.S. Production Profile 4M lbs./yr

Aggressively Expanded Project Portfolio Through Acquisitions During the Downturn

Largest U.S. Resource Base of Fully Permitted ISR Projects in Texas and Wyoming of any U.S. Based Producer



UEC'S HOBSON PLANT -TEXAS HUB & SPOKE OPERATIONS

Reactor Demand Significantly Exceeds Primary Production

Spot Prices Below Production Costs and Hedges Falling Off

2020 Demand expected = 180M lbs.

2020 Production expected = 123M lbs.

2020 Production gap is 57M lbs. below requirements

Cumulative Gap is 250M lbs. by 2025



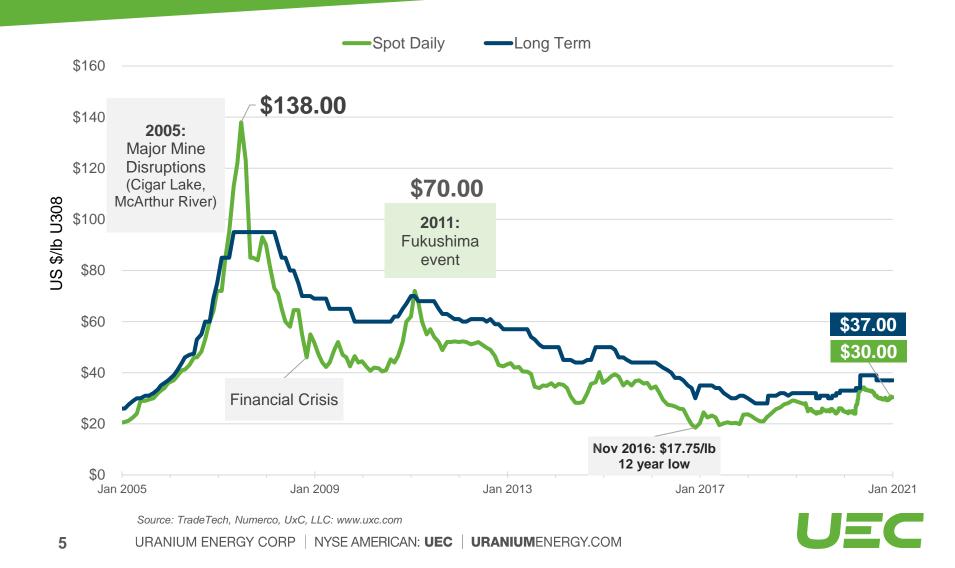




Source: UxC Market Outlook Q4 2019; Q4 2020
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Uranium Spot Price \$30.00/lb. 70% Increase Over November 2016 Low (\$17.75/lb)



U.S. Uranium Mining & Nuclear Energy Receives Historic Support in Washington D.C.

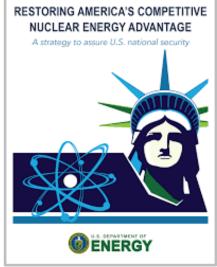
Bi-Partisan Support for Nuclear Energy – First Time in 48 years Democratic Party Platform Supports Nuclear Energy

World's Largest Nuclear Reactor Fleet Over Reliance on Imports Prompts National Security Concerns – <u>No U.S. Production</u>

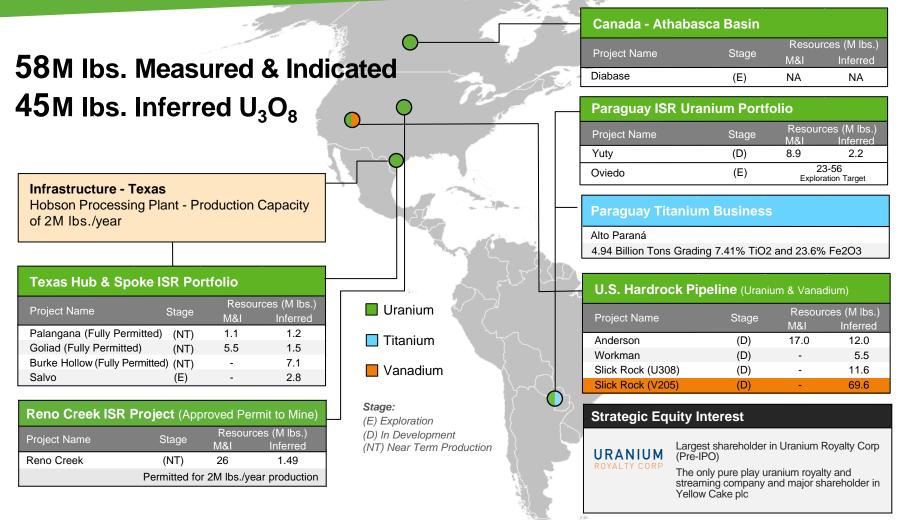
Nuclear Fuel Working Group Develops Strategy to Restore America's Nuclear Fuel Supply Chain & Global Market Position

Strategic Uranium Reserve Budget is \$1.5 Billion over 10 years for Domestic Uranium and Conversion (\$75 Million in Appropriations for fiscal 2021)

DOC Amends Russian Suspension Agreement to Limit and Reduce Imports from Russia – up to 75% Compared to Prior RSA - Codified in Energy Act of 2020



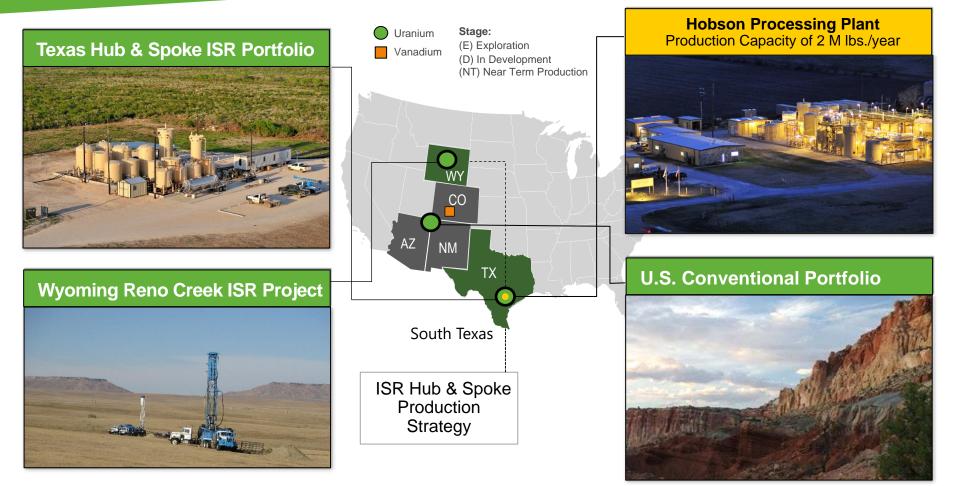
Diversified Asset Portfolio Low-Cost ISR & Production Ready



UEC

Please refer to a detailed breakdown of NI 43-101 resources and disclaimer in this presentation

U.S. Project Portfolio Infrastructure, Resources and Permits



Please refer to technical reports on SEDAR and Company's website for a detailed breakdown of NI 43-101 resources and disclaimer.



Our Team



Amir Adnani President, CEO, Director

An entrepreneur, founding CEO of UEC, founder and Chairman of GoldMining Inc., with extensive experience building natural resource companies.



Spencer Abraham Chairman, Board of Directors

Served as a U.S. Senator from 1995 to 2001, as Secretary of Energy from 2001 to 2005 and previously as non-executive Chairman of Areva's U.S. board.



Robert Underdown

VP of Production

Has held senior operational positions at ISR uranium mines in Texas for over 35 years.



Clyde Yancey

VP of Exploration

Over 35 years of experience in uranium exploration in North and South America.



Scott Melbye

Executive Vice President

35 years of experience in senior roles with uranium majors, Cameco, Uranium One, and Kazatomprom. Former President of Uranium Producers of America and Chair of the World Nuclear Fuel Market.



Andy Kurrus

VP of Resource Development

Over 30 years experience with uranium exploration in the United States.



UEC At a Glance

UEC

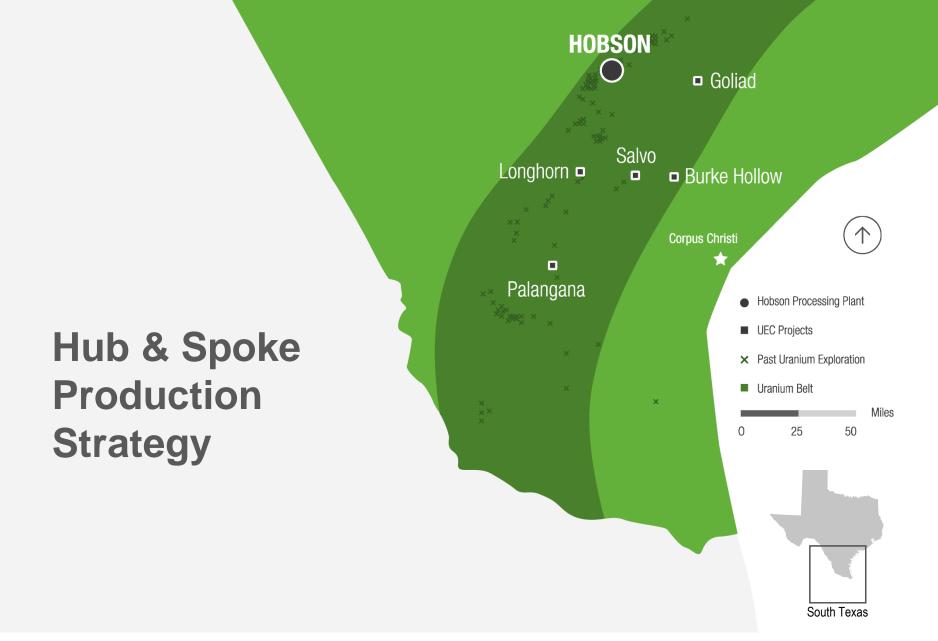
Cash ⁽¹⁾	\$16.7 M				
Securities ⁽²⁾	\$11.6 M market value o	\$11.6 M market value of 14 M shares of Uranium Royalty Corp (URC: TSX-V)			
Share Structure	198.9 M Outstanding	14.5 M Warrants + (-	229.5 M Fully Diluted	
Recent Activity	\$1.75 As of Jan 26, 2021	2,326,480 Avg. Daily Vo	l. (3-mo)		
Market Cap	\$348 M As of Jan 26, 2021	\$18 M ⁽⁴⁾ Long-Term De	ebt		
Top Shareholders	UEC Team, Blackrock, Vanguard Group, State Street, Fidelity, Northern Trust, UBS, SG Americas Securities, CEF Holdings, Sprott, KCR Fund, and Global X Management				
ANALYST COVERAGE	Mitch Vanderydt, Eight Capital Heiko Ihle, H.C. Wainwright & Co. Katie Lachapelle, Canaccord Genuity		Colin Healey , Haywood Securities Inc. Joseph Reagor , ROTH Capital Partners		

⁽¹⁾ As at the Company's latest filings on Dec 14, 2020

⁽²⁾ Uranium Royalty Corp (URC: TSX-V) having a trading price of CAD\$1.10 at closing on Oct 31, 2020. These shares are subject to escrow and resale restrictions as set forth in URC's final prospectus filing

⁽³⁾ \$43.5 M cash to be received should all warrants and options be exercised

⁽⁴⁾ In Nov 2020, UEC made a voluntary principal repayment of \$2M, reducing the total principal outstanding to \$18M





Hobson is fully licensed and permitted.



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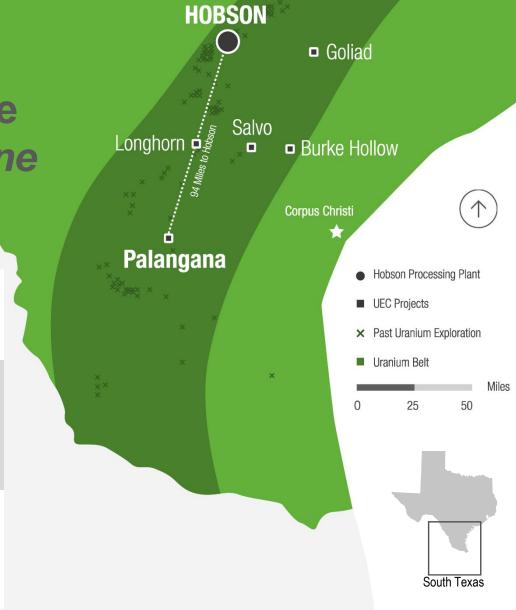
The Processing Plant has a 2M lbs. / year physical capacity



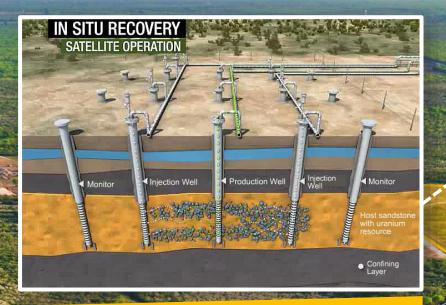
Palangana ISR Mine First Producing Mine **Proof of Concept**

\$10M Initial CAPEX	6 months construction timeline
Production Ready	 Low cash-cost of \$21.77/lb during operation Fully permitted including expanded mine permit Received 10-year renewal permits in 2019
Similar Costs for Future Projects	 The major permits for production have been issued for Goliad and Burke Hollow

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In-Situ Recovery (ISR) Technology

Low Cost & Environmentally Friendly

Palangana Production Area 1 (PA-1)

Palangana lon Exchange Facility





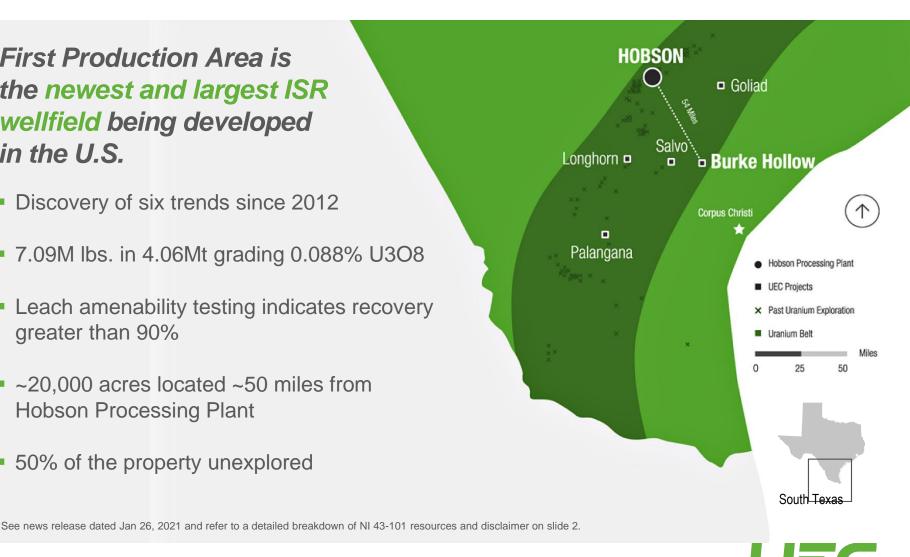
Resin Hauling Truck And Trailer



Burke Hollow ISR Project

First Production Area is the newest and largest ISR wellfield being developed in the U.S.

- Discovery of six trends since 2012
- 7.09M lbs. in 4.06Mt grading 0.088% U3O8
- Leach amenability testing indicates recovery greater than 90%
- ~20,000 acres located ~50 miles from Hobson Processing Plant
- 50% of the property unexplored



Burke Hollow Advancing Towards Uranium Extraction

The following final permits have been issued:

Mine Production Area Two Class I disposal wells Aquifer Exemption Radioactive Materials License

2021 Production Area Development

PAA-1 amongst the largest uranium ISR wellfields ever developed in the 45-year history of uranium mining in South Texas

- Plan to complete all exterior and interior wells, including installation of ~45 additional monitor wells
- Permitting activities to include sampling and pumping tests in anticipation of commencing production activities



Gillette **Buffalo Reno Creek** 1-90 **ISR** Project Irigaray Uranium One The largest permitted, **North Butte** Cameco **Christensen Ranch** pre-construction **RENO CREEK,** UEC Uranium One ISR uranium project Moore Ranch in the U.S. Uranium One Strategic Location within the Heart of the Powder River Basin, Wyoming **Smith Ranch** Highland Cameco Cameco Casper Received a modified Permit to Construct in 2019, allowing the 1-25 Processing Plant construction of the Central **Processing Plant (CPP) and ISR** Active ISR Operation wellfields Wyoming, USA **Fully Permitted** Miles

25

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Reno Creek ISR Project Pre-Feasibility Study Underway



* See news release dated January 15, 2019. Please refer to a detailed breakdown of NI 43-101 resources and see disclaimer on slide 2.

M&I Resource 26M lbs. of U3O8 grading 0.041% within 32Mt*

Inferred Resource 1.49M lbs. of U3O8 grading 0.039% within 1.92Mt*

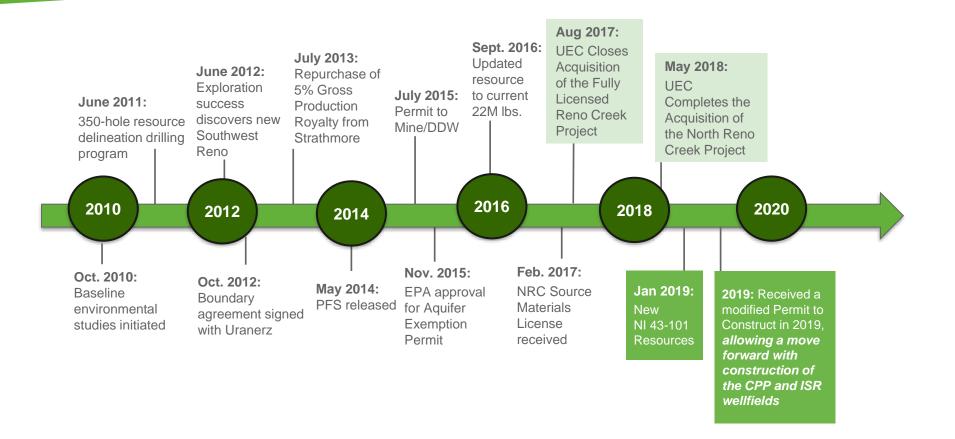
First time since 1980 that the major mineralized trends have been consolidated

Considerable ISR exploration and expansion potential

Production permits in place



Reno Creek: Project Timeline



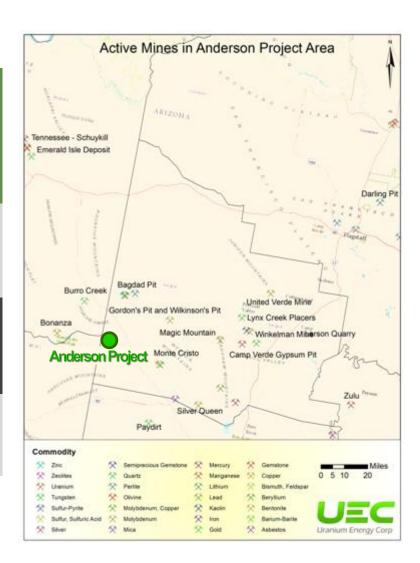
* See news release dated January 15, 2019. Please refer to a detailed breakdown of NI 43-101 resources and see disclaimer on slide 2.



Anderson Project - Arizona

A Large U.S. Resource	 NI 43-101 compliant resource*: Indicated Resource: 29.5Mt, 17M lbs. avg. grade of 0.029% Inferred Resource: 14.3Mt, 12M lbs. with avg. grade of 0.046%
9,852 Acres	Project located ~75 miles northwest of Phoenix, AZ
History	Between 1955-1958 with ~\$40M spent by previous operators, including Urangesellschaft
Extensive Work	Feasibility studies, milling studies, and hydrological reports previously completed by third parties

*NI 43-101 Technical Report completed and available on SEDAR and see disclaimer on slide 2





Slick Rock Project - Colorado

Technical Report	 NI 43-101 Compliant Resource*: Inferred Resource: 2.5Mt, 11.6M lbs. avg. grade of 0.228% Inferred Resource: 2.5Mt, 69.6M lbs. vanadium with avg. grade of 1.37%
Low	 \$21M initial CAPEX with an annual production
CAPEX	of 438,000 pounds U3O8 + vanadium inferred
Vanadium	 Resource of 2.549Mt grading 1.37% V2O5 and
Resource	containing 69.6M lbs.
Nearby Infrastructure	Projected sale of mined product to the White Mesa mill in nearby Blanding, UT

*NI 43-101 Technical Report completed and available on SEDAR and see the Company's disclaimer





ISR District Opportunity in Paraguay

Similar geology as South Texas and leveraging ~\$50M of historic exploration work by Anschutz and Cameco, including new work completed by UEC.

Project	Historic Operator	Stage	Resource (M Ibs)
Yuty	Cue Resources / Cameco	Exploration / Development	8.9M lbs. in 7.8Mt grading 0.052% U3O8 M&I and 2.2M lbs. in 2.1Mt grading 0.047% U3O8 Inferred*
Project	Historic Operator	Stage	Exploration Target (M lbs)
Oviedo	Anschutz Corp	Exploration	23 - 56M lbs. in 28.9 - 53.8Mt grading 0.04% to 0.052% U3O8*

*NI 43-101 Technical Report completed and available on SEDAR and see Company's disclaimer



Alto Paraná Titanium Project

Project Overview

- One of the highest-grade and largest-known Ferro-Titanium deposits in the world
- NI 43-101 compliant resource with a mineral exploration claim of 70,498 hectares
- The PEA's first phase was completed in early 2020 with conclusion of a 49-hole drilling & sampling campaign
- Follow-up activities include laboratory analyses and new resource estimation



Cut-Off	%	%	% Ilmenite	Tonnes	Thickness
%	TiO ₂	Fe ₂ O ₃	calc	Billions	(m)
6.0	7.41	23.58	13.95	4.94	

*NI 43-101 Technical Report completed and available on SEDAR and see disclaimer on slide 2

Project History

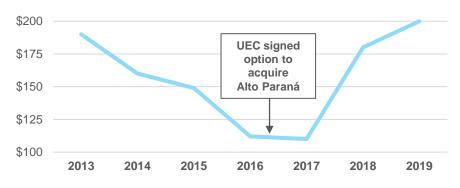


Titanium Feedstock Market – TiO2 prices hitting 3-year highs

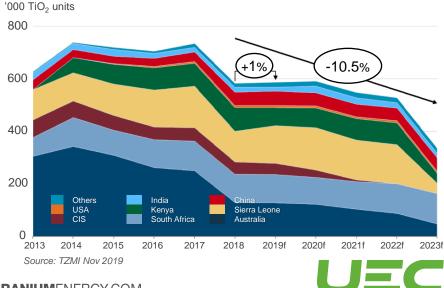
- 90% of TiO2 feedstocks (ilmenite) used for pigment manufacturing
- Strong price recovery for ilmenite since 2017, with positive outlook, driven by:
 - Strong pigment demand & balanced inventory levels
 - Environmental and yield advantages of high-grade feedstock
 - High-grade feedstock supply deficit

Good fit for Alto Parana – capable of producing high-grade TiO2 feedstock for both sulfate or chloride slag production

Price of TiO2 Feedstock - ilmenite (USD per tonne)



Significant Supply Deficit – High Grade TiO2 Feedstocks



Investment Summary

- Fully permitted and state of the art infrastructure advantage with Hobson Processing Plant
- Pipeline of fully licensed, low-cost ISR projects – potential production profile of 4M lbs./year in Texas and Wyoming
- U.S. projects can provide supply under the NFWG strategy, including \$1.5B Uranium Reserve program - \$75M in FY2021 Appropriations
- Advancing production-readiness at Reno Creek and Burke Hollow ISR projects
- Market fundamentals continue to improve with a growing deficit between primary production and reactor requirements



Nuclear Energy Saves Lives – Improves Quality of Life

NUCLEAF is the safest way to make reliable electricity and has saved over 3 million lives that would have been lost prematurely to deadly air pollution from energy alternatives.

https://www.nextbigfuture.com/2019/01/nuclear-power-has-saved-3-4-million-lives.html



Germany's "Energiewende" "Failed Energy Policy"

160 Billion Euro Investment in "Green Energy" has resulted in:

- Zero Progress in Reducing Carbon Emissions
- Expensive Electricity 50% higher than Nuclear France
- Reduced Reserve Margins
 Reliability Issues
- Reliance on dirty lignite Coal and Russian Gas
- Competitive disadvantage for German Industry
- Loss of confidence in German Government



Translation "A botched job in Germany"

France Gets 72% of its Electricity from Nuclear Power

THEY ENJOY:

- ✓ Per kW carbon emissions 1/10 that of Germany
- ✓ Electricity rates 1/2 that of Germany
- Clean air with abundant and affordable energy

Policies to reduce nuclear reliance overturned. Smart move in light of "Yellow Vest" outrage on gas tax.





Nuclear Power Growth Remains Robust



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CHINA announced that it is likely to triple nuclear power capacity by 2030

INDIA plans for 21 new nuclear reactors by 2031

U.A.E. completed 1 reactor; 3 units under construction, 4 more reactors under consideration

U.K. upgrading nuclear fleet to new advanced reactors

RUSSIA is building 36 reactors in China, India, Bangladesh, Turkey, Egypt, Iran, Finland, Belarus, Slovakia, Armenia, Uzbekistan and Hungary

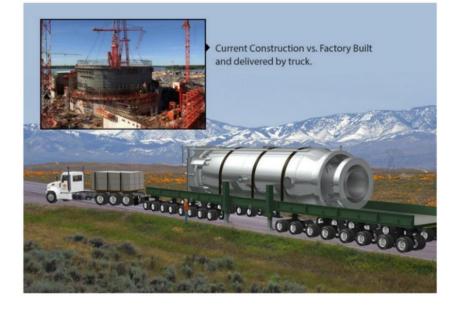
U.S. is completing two new AP-1000 reactors in Georgia and has maintained a 20% market share for 30 years with power uprates and efficiency = to 32 new reactors as electricity demand grew over 36% from 1989-2019 – A Stealth Growth Story!





Small Modular Reactor (SMR) An Important Emerging Market

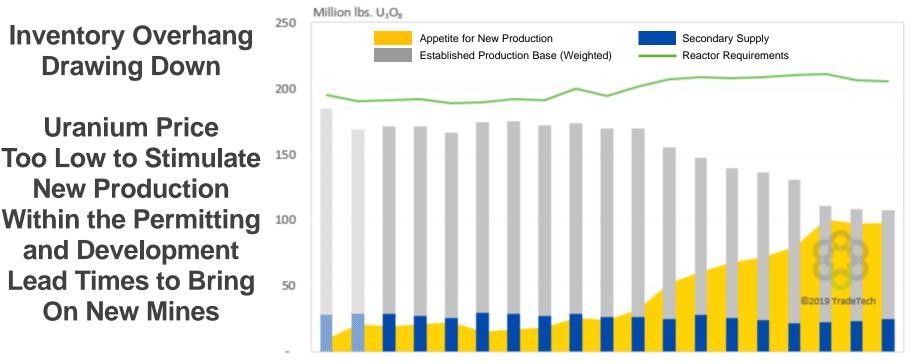
- SMR global market: 65-85 GWe by 2035 – small scalable reactors:
 - Size: 5 up to 300 MWe
 - Simpler design lower capital and operating cost
 - Cost competitive with natural gas
- Western U.S. utilities planning for 12 of the NuScale Power SMRs to be in commercial operation by 2025





Need for New Production – Beyond Existing Mines

Trade Tech's "Market Appetite" for New Production



2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035

All assumptions are consistent with TradeTech's latest proprietary assumptions, August 2019 (i.e. Q2 2019);

 Established Production Base shown is weighted to assimilate the challenge of existing operations remaining at full capacity over Life-of-Mine.



Inventory Overhang

Drawing Down

Uranium Price

New Production

Within the Permitting

and Development

Lead Times to Bring

On New Mines

Utility Procurement Cycle: Old Contracts Rolling Off...New Contracts Need to be Signed

Utility Uncommitted Demand Historic Long Term Contracting Non-U.S. Utilities Million pounds U3O8e © UxC Million pounds U₃O₈ © UxC U.S. Utilities 275 225 URM Base Demand ■Non-U.S. Eval/Pot. 250 200 U.S. Eval/Pot. 225 175 ■Non-U.S. Comp. 200 150 175 ■U.S. Awarded 125 150 125 100 100 75 75 50 50 25 25 0 0 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 90 92 94 96 98 00 02 04 06 08 10 12 14 16 18 20

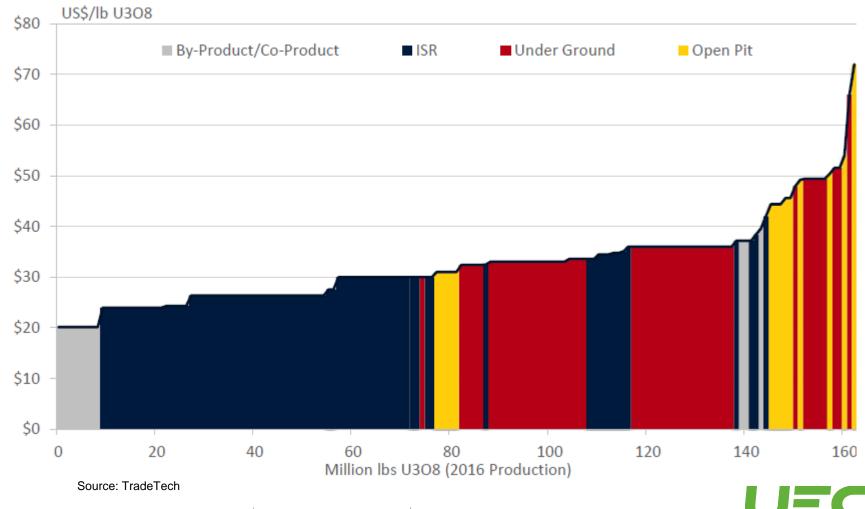
Contracting Year



Source: UxC Market Outlook Q4 2020

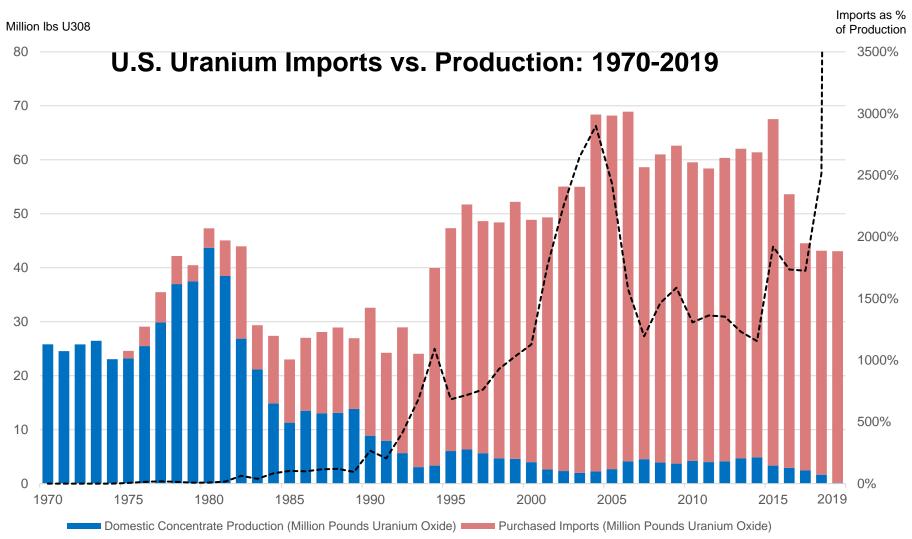
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Global Cost Curve – Most U.S. Production is ISR



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Overdependence on Foreign Supplies



---- (%) Purchased Imports : Domestic Concentrate Production





Bottom Line - Positive Market Outlook

- Demand Growth 52 reactors added to grid in past 8 years generation recover to pre-Fukushima levels. Global Nuclear Power Growth is expected at a CAGR of 2.6% over the period 2020-2027. IEA sees future nuclear capacity growth of over 15% to 2040
- Underinvestment and Supply Cutbacks Kazakhs, Cameco, Orano, and others, resulting in significant primary supply deficit. Mine depletions are increasing.
- Lead Time to Advance Large New Mines can be 7 to 10 years (or longer), approx. \$60/lb + incentive price
- Accelerated Market Re-Balancing Growing primary production shortfall exists. COVID removed about 20M pounds from 2020 production – will not be made up, some COVID shutdowns continuing, further reducing supply
- ✓ Utility Procurement Cycle Looming "New" fundamentals have not been tested
- ✓ Speculative Interest in Physical Throwing "gasoline on the fire"
- ✓ **Upward Volatility in Uranium Price is Inevitable** despite pullbacks
- The NFWG announced strategy to purchase 17-19M lbs. U.S. mined U3O8 starting within 2021 (\$75M in Appropriations have been approved for fiscal 2021)



Combined Resource Summary⁽¹⁾



Projects		Measured & Indicated			Inferred		
Hub & Spoke ISR Portfolio Texas ISR	Tons ('000)	Grade (% U ₃ O ₈)	Lbs U ₃ O ₈ ('000)	Tons ('000)	Grade (% U ₃ O ₈)	Lbs U ₃ O ₈ ('000)	
Palangana	393	0.14	1,057	328	0.18	1,154	
Burke Hollow	-	-	-	4,064	0.088	7,093	
Goliad	3,790	0.05	5,475	1,547	0.05	1,501	
Salvo	-	-	-	1,200	0.08	2,839	
Longhorn			Developmenta	I with historical resource	S		
Texas ISR Total	4,183	0.095	6,532	7,139	0.10	12,587	
Wyoming ISR							
Reno Creek	32,000	0.041	26,000	1,920	0.039	1,490	
Wyoming ISR Total	32,000	0.041	26,000	1,920	0.045	1,490	
U.S. Conventional Portfolio	Tons ('000)	Grade (% U ₃ O ₈)	Lbs U ₃ O ₈ ('000)	Tons ('000)	Grade (% U ₃ O ₈)	Lbs U₃O₈ ('000)	
Anderson, AZ	29,532	0.03*	17,000	14,295	0.04*	12,000	
Workman Creek, AZ	-	-	-	3,222	0.09	5,542	
Slick Rock, CO	-	-	-	2,549	0.228	11,600	
Los Cutaros, AZ		Developmental with historical resources					
C de Baca, NM			Developmenta	I with historical resources	S		
Dalton Pass, NM			Developmenta	I with historical resources	S		
Long Park, CO		Developmental with historical resources					
U.S. Conventional Total	29,532	0.03*	17,000	20,066	0.12	29,142	
Canadian Conventional Portfolio							
Diabase, SK		Developmental with historical resources					
Paraguay ISR							
Yuty	8,621	0.05*	8,914	2,353	0.05	2,226	
Coronel Oviedo		Developmental with historical resources					
Paraguay ISR Total	8,621	0.05*	8,914	2,353	0.05	2,226	
Company Total		58,446 ('000 lbs. U3O8) 45,445 ('000 lbs. U3O8)					

(1) Cautionary Note to US Investors. The Company is without known mineral reserves under SEC Industry Guide 7. Measured, Indicated and Inferred Resources are estimated in accordance with NI 43-101 and do not constitute SEC Industry Guide 7 compliant reserves. (*) Weighted averages



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