

# THE MONTHLY MONITOR

MARCH 2022

URANIUM PRICES	As of 02/28/2022		MoM	YID	YOY
Spot Price US\$/Ib U₃O <sub>8</sub>	\$48.50		12.8%	15.5%	74.4%
Long-Term Price US\$/Ib U₃O₃	\$42.50		4.9%	4.9%	30.8%
GLOBAL REACTOR <sup>2</sup>	COUNT	GWe	МоМ	YTD	YoY
Operable	437	389	0%	-0.7%	-1.1%
Under Construction	58	63	1.8%	3.6%	9.4%
Planned	96	98	-1.0%	-3.0%	-3.0%
Proposed	325	354	0%	0%	-0.3%
SLUC UEQUITIES PERFORMANCE	As of 02/28/2022		МоМ	YTD	YoY
SLU3O8 Index <sup>3</sup>	99		25	0	68
UProducers Average⁴	MoM Top Performer: T.EFR: +32.7%		17.1%	6.2%	62.7%
UDevelopers Average⁴	MoM Top Performer: T.GXU: +30.6%		13.7%	5.3%	42.1%
LIEvolorers Average <sup>4</sup>	MoM Top Performer:		10.5%	0.3%	10 1%

Price as per UxC, LLC.

**UExplorers Average⁴** 

- 2. As per World Nuclear Association; MoM, YTD and YoY percentages based on Global Reactor Count
- SLU₃O₃ Index is comprised of T.CCO, T.DML, T.EFR, A.ERA, A.PDN, A.PEN, T.URE, U.UEC, T.AEC, L.BKL, T.FCU, T.FSY, V.GXU, T.LAM, T.NXE, A.TOE, T.UEX, A.VMY, A.BMN, A.DYL, V.FUU, V.FTU, V.SYH

V.SYH: +28.3%

4. Performance Averages from the SLU<sub>3</sub>O<sub>8</sub> UEquity list of companies

Updated on February 28, 2022

### MONTH IN REVIEW

Equities appear to be recovering from three months of drifting down, but then why not. Uranium prices have started to move up again (Spot at US\$48.50/lb U₃O₃ and Long term at \$42.50), political pressures in Kazakhstan and then Russia have unsettled supply, the Sprott Physical Uranium Fund is buying inventory again and Cameco has announced a new contracting cycle and scheduled the reopening of the McArthur River mine.

Ukraine represents an important nuclear centre in Europe hosting 15 nuclear reactors, the largest reserves of uranium in Europe. Although the result of Russia's attack on the Ukraine has sent commodities upward, its effect on uranium prices is yet to be played out. We suspect that US moves to lessen their reliance on Russian and Kazakh uranium may create further contracting pressure and more immediate price increases.

What ever the outcome, uranium prices remain far short of incentive levels and have a lot of room to move. 2022 may prove a real turning point in the recovery of the sector.

Comments or question? Ask us on Twitter (@Sightlineu3o8) or email us at editor@sightlineu3o8.com.

## **NUCLEAR POWER IN UKRAINE**

49.4%

10.5%



Source: World Nuclear News

With the attention of the world focused on events in Ukraine, one of the questions people are asking is about the country's nuclear power industry. Here is a brief overview.

# How big is Ukraine's nuclear power industry?

Ukraine is heavily dependent on nuclear energy, with 15 reactors generating about half of its electricity. All its current reactors are Russian-designed VVER types.

**CONTINUED ON PG 2** 



#### **NUCLEAR POWER IN UKRAINE (CONT'D)**

#### What is the history of nuclear power in Ukraine?

Nuclear development started in 1970, when Ukraine was part of what was then the Soviet Union, with the construction of the Chernobyl power plant. The first unit was commissioned in 1977 with unit 4 coming online in 1983. Following the accident in 1986, units 5 and 6 were cancelled in 1989.

The industry remained relatively stable during the years when the country became independent of the former Soviet Union. At the end of 1995 Zaporozhe 6 was connected to the grid making Zaporozhe the largest nuclear power station in Europe, with a net capacity of 5700 MWe. (The second largest station operating is Gravelines, near Dunkerque in France, with a net capacity of 5460 MWe.)

In August and October 2004 Khmelnitski 2 and Rovno 4 respectively were connected to the grid, bringing their long and interrupted construction to an end and adding 1900 MWe to replace that lost by closure of Chernobyl units 1 and 3 in 1996 and 2000 respectively.

Click here to read more detail on Ukraine's nuclear history

#### What plans has Ukraine had for new nuclear capacity?

The original design lifetime of the Russian reactors was 30 years, but work has taken place to allow a series of lifetime extensions.

In September 2021 the Ukrainian state-owned nuclear power firm Energoatom signed an agreement with the US-based firm Westinghouse to build four AP1000 reactors at established sites in the country. Since then Energoatom has outlined plans for further reactors – including exploring the possibility of deploying small modular reactors from US firm NuScale – as part of its goal of 24GWe of nuclear capacity by 2040.

#### What about Ukraine's nuclear fuel?

Ukraine has access to two fuel suppliers: Russia's TVEL and Westinghouse. Most fuel in Ukraine's reactors is manufactured by TVEL, but the country has had an ongoing project in recent years to diversify its fuel sources

As of mid-2021, six of Ukraine's 15 reactors were operating using fuel manufactured by Westinghouse, fabricated at its plant in Västerås in Sweden.

#### How did Ukraine prepare for the latest events?

Earlier this month Energoatom's CEO Petro Kotin said that: "According to the protocol, the plants will not work in case, for example, of bombing attack. In such a case, the plant is shut down and unloaded until the threat is eliminated.

"In the event of loss of the external power supply at the nuclear power plant, the autonomous power supply system starts working by means of powerful diesel generators. Ukrainian nuclear power plants are ready for such a mode of operation: the stock of diesel fuel located at nuclear power plants significantly exceeds the established standards.

"In addition, Ukrainian power units are ready even for an aircraft crash, because the containment and the reactor vessel designed to withstand corresponding risks."

He added that two years' worth of nuclear fuel had been stockpiled in case of interruption of supply.

**CONTINUED ON PG 6** 

#### **TOP SUPPLY NEWS**

Reactor Pressure Vessel of Second Power Unit Reached Akkuyu NPP February 3, 2022

France's nuclear ambitions take shape with turbine deal

February 7, 2022

TVA Unveils Major New Nuclear Program, First SMR at Clinch River Site February 10, 2022

Announcing new reactors, Macron bets on nuclear power in carbon-neutral push February 10, 2022

Matsue Mayor OKs Restart of Nuclear Reactor

February 15, 2022

Fuqing 6 reaches full power as Hongyanhe 6 nears startup
February 21, 2022

Atommash completes a steam generator manufacture key stage for the second unit of Kursk NPP-2 February 21, 2022

World's fourth Hualong One unit reaches first criticality
February 23, 2022

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#### **TOP DEMAND NEWS**

Constellation Launches as Largest U.S.
Clean Energy Company After Completing
Separation From Exelon
February 2, 2022

Tebruary 2, 2022

<u>China and Argentina sign nuclear project deal</u> February 2, 2022

UK HPR1000 nuclear technology accepted for use in UK February 7, 2022

K-3 nuclear power plant set to commence operations by March February 10, 2022

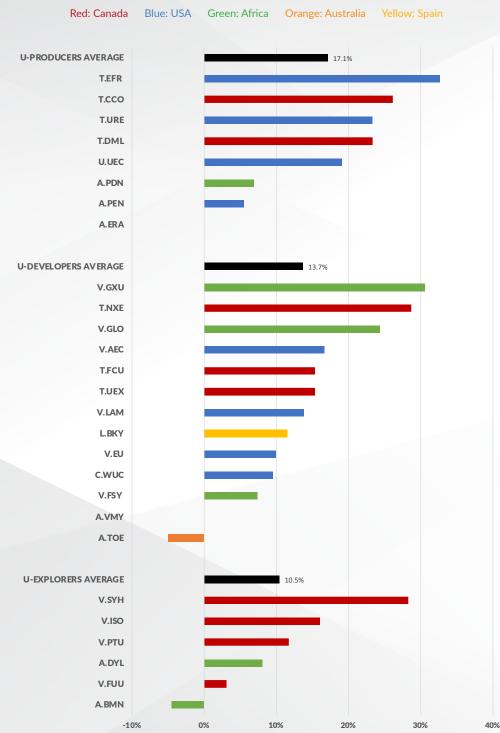
France defends its 'big nuclear adventure,' says it is influenced by geopolitics
February 11, 2022

The Future of Nuclear Power February 15, 2022



# SLUC UEQUITIES MONTHLY PERFORMANCE (FEBRUARY 28, 2022)

#### **Project Regional Focus:**



#### **TOP EQUITIES NEWS**

U.U Becomes Debt Free After Paying Off Credit Facility February 2, 2022

V.SYH Intersects Additional High Grade
Uranium Mineralization Including 2.07%
U3O8 over 4.0m within 19.5m of 0.54%
U3O8 at the Moore Uranium Project,
Saskatchewan
February 3, 2022

V.ISO Reports Final Chemical Assays From 2021 Drilling at Hurricane Zone February 3, 2022

T.CCO Reports Q4/Annual Results February 9, 2022

U.U Files Inaugural Regulation S-K 1300 Technical Report Summary Disclosing Resources for Its Reno Creek, Wyoming, Project

February 9, 2022

T.DML Announces Intersection of 24.9% eU3O8 over 4.2 metres extending beyond high-grade domain at Phoenix Zone A February 16, 2022

CNSC renews T.CCO Corporation's nuclear fuel facility licence for its Blind River Refinery for a 10-year period February 17, 2022

T.GLO Corporate Update February 22, 2022

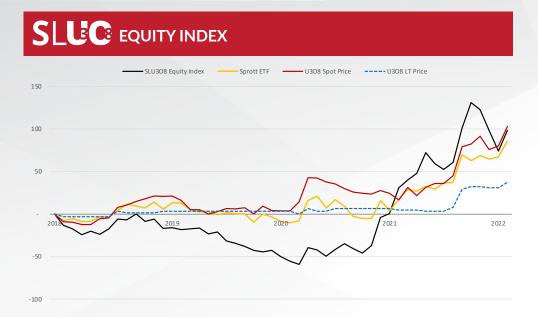
T.EFR: Uranium mine near Grand Canyon permitted by court, despite mining ban February 22, 2022

T.FCU Expands Operations and Technical Team
February 24, 2022

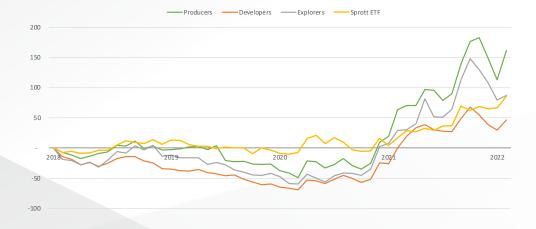
V.PTU to Provide Drill Program Update at the Red Cloud 2022 Annual Mining Showcase

February 28, 2022





# **SLUC** EQUITY INDEX BY CATEGORY



# U<sub>3</sub>O<sub>8</sub> PRICES - HISTORIC



#### **TOP POLITICS NEWS**

European Commission presents text of nuclear and gas CDA February 2, 2022

Stop the closure of Diablo Canyon Nuclear
Power Plant
February 2, 2022

February 3, 2022

Georgia Power to go coal-free by 2028, double renewables by 2035, but advocates decry gas plans

February 3, 2022

Biden administration restores Iran sanctions waiver as time runs out to salvage nuclear deal

February 4, 2022

<u>Ukraine and Canada agree closer nuclear cooperation</u>

February 4, 2022

Fermi sees Estonian interest in nuclear grow February 7, 2022

Kazakhstan is in strong need of nuclear power station\_ February 8, 2022

Coal-dependent West Virginia eliminates ban on nuclear power February 8, 2022

State regulators approve Xcel plan that shifts from coal to nuclear energy, renewables

February 8, 2022

Nuclear power increasingly popular as energy costs, supply chain issues mount under Biden

February 9, 2022

Announcing new reactors, Macron bets on nuclear power in carbon-neutral push February 10, 2022

The Cheapest Way To A Zero-Emission
World Needs Nuclear Power, Claims New
Study

February 15, 2022

Russian government allocates about RUB100 billion for new nuclear projects February 15, 2022

Moon calls nuclear power main source of electricity over next 60 years
February 25, 2022



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PRODUC	ING COMPANIES	COUNTRY FOCUS	PRICE AS OF 02/28/2022	52 WEEK HIGH	52 WEEK LOW	MARKET CAP (MILLIONS)
T.CCO	Cameco Corp	Canada	\$31.17	\$35.47	\$18.41	\$11,546.41
T.DML	Denison Mines Corp	Canada	\$1.88	\$2.65	\$1.10	\$1,420.96
T.EFR	Energy Fuels Inc	United States	\$10.43	\$14.33	\$5.55	\$1,492.30
A.ERA	Energy Resources of Australia Limited	Australia	\$0.32	\$0.58	\$0.18	\$1,180.00
A.PDN	Paladin Energy Ltd	Namibia	\$0.77	\$1.12	\$0.36	\$2,060.00
A.PEN	Peninsula Energy Limited	United States	\$0.19	\$0.35	\$0.096	\$189.49
T.URE	Ur-Energy Inc	United States	\$1.90	\$2.72	\$1.15	\$375.86
U.UEC	Uranium Energy Corp	United States	\$3.99	\$5.79	\$1.875	\$963.46
DEVELO	PMENT COMPANIES					
V.AEC	Anfield Energy Inc	United States	\$0.105	\$0.23	\$0.075	\$24.29
L.BKY	Berkeley Energia Ltd	Spain	\$13.50	\$39.00	\$8.49	\$50.42
V.EU	Encore Energy Corp	United States	\$1.55	\$2.27	\$0.95	\$426.86
T.FCU	Fission Uranium Corp	Canada	\$0.90	\$1.25	\$0.45	\$565.48
T.FSY	Forsys Metals Corp	Namibia	\$0.87	\$1.30	\$0.44	\$154.66
V.GLO	Global Atomic Corporation	Niger	\$4.39	\$4.84	\$2.01	\$707.29
V.GXU	Goviex Uranium Inc	Niger	\$0.405	\$0.59	\$0.19	\$207.16
T.LAM	Laramide Resources Ltd	United States	\$0.74	\$1.12	\$0.365	\$130.01
T.NXE	NexGen Energy Ltd	Canada	\$6.73	\$8.12	\$3.90	\$2,894.25
A.TOE	Toro Energy Limited	Australia	\$0.019	\$0.058	\$0.012	\$62.94
T.UEX	UEX Corporation	Canada	\$0.375	\$0.60	\$0.255	\$193.05
A.VMY	Vimy Resources Ltd	Australia	\$0.18	\$0.31	\$0.088	\$190.34
C.WUC	Western Uranium and Vanadium	United States	\$1.68	\$4.18	\$1.15	\$71.30
EXPLOR/	ATION COMPANIES					
A.BMN	Bannerman Resources Limited	Namibia	\$0.21	\$0.44	\$0.10	\$259.24
A.DYL	Deep Yellow Limited	Namibia	\$0.80	\$1.37	\$0.58	\$309.63
V.FUU	Fission 3.0 Corp	Canada	\$0.165	\$0.30	\$0.08	\$43.82
V.ISO	IsoEnergy Ltd	Canada	\$4.06	\$6.65	\$1.95	\$386.57
V.PTU	Purepoint Uranium Group Inc	Canada	\$0.095	\$0.195	\$0.075	\$29.18
V.SYH	Skyharbour Resources Ltd	Canada	\$0.68	\$0.88	\$0.28	\$79.17
OTHERS						
T.U.UN	Sprott Physical Uranium Trust	Canada	\$15.72	\$18.50	\$9.56	\$2,573.29
L.GCL	Geiger Counter Ltd	UK	\$55.00	\$74.50	\$30.70	\$60.98
U.URA	Global X Uranium ETF	US	\$24.11	\$31.60	\$16.76	\$1,307.49
L.YCA	Yellow Cake Plc	UK	\$352.00	\$359.50	\$216.00	\$645.08
T.HURA	Horizon Global Uranium ETF	Canada	\$23.39	\$30.39	\$15.42	\$51.01
U.URNM	North Shore Global Uranium Mining ETF	United States	\$76.30	\$104.00	\$50.33	\$742.66
V.URC	Uranium Royalty Corp	Canada	\$5.20	\$7.32	\$2.30	\$427.61

Note: Currencies for the price and market cap are respective to the country of trade.





URANIUM PRICES Source: UC	SPOT PRICE US\$/lb U3O8	LONG TERM PRICE US\$/lb U <sub>3</sub> O <sub>8</sub>		
February 28, 2022	\$48.50 🕇	\$42.50 🕇		

## **NUCLEAR POWER IN UKRAINE (CONT'D)**

#### Energoatom's update on Thursday 24 February

Energoatom issued a statement early on 24 February saying that "all nuclear power plants in Ukraine - Zaporozhye, Rovno, Khmelnitski and South Ukraine - are operating normally, the production programme and, accordingly, electricity generation are stable, according to the approved schedule, all planned activities are carried out."

It added that there had been "no violations of the boundaries and conditions of safe operation. Radiation, fire and environmental conditions at NPPs and adjacent areas have not changed and are within current standards."

It said that the physical protection of nuclear power plants had been strengthened and "no manifestations of any action that could lead to violations of the conditions of safe operation of NPPs have been recorded". •

## ABOUT THE SLU3O8 EQUITY INDEX

The SLU<sub>3</sub>O<sub>8</sub> Equity Index tracks the relative share price of a select basket of uranium-based equities, checking the market's reaction to industry activities. The Index is based on share price movement since January 1, 2018 for the following companies:

Producers: T.CCO, T.DML, T.EFR, A.ERA, A.PDN, A.PEN, T.URE and U.UEC

Developers: V.AEC, L.BKL, T.FCU, T.FSY, V.GXU, T.LAM, T.NXE, A.TOR, T.UEX and **A.VMY** 

Explorers: A.BMN, A.DYL, V.FUU, V.PTU and V.SYH

### ABOUT SIGHTLINE SLU3O8

**Sightline U<sub>3</sub>O<sub>8</sub>** is a nuclear industry research organization reporting through a monthly newsletter and supporting website created and maintained to provide uranium investors and industry stakeholders with a single source of insight into the ongoing factors that directly affect uranium prices.

We welcome your comments, questions and ideas. Please contact us at

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