

THE MONTHLY MONITOR

SEPTEMBER 2019

URANIUM PRICES ¹	As of 08/31/2019		MoM	YTD	YoY
Spot Price US\$/lb U ₃ O ₈	25.28		-1.0%	-12.0%	-4.0%
Long-Term Price US\$/lb U ₃ O ₈	\$32.00		0%	0%	+1.6%
GLOBAL REACTOR ²	COUNT	GWe	MoM	YTD	YoY
Operable	444	396	-0.7%	-1.6%	-2.2%
Under Construction	54	58	-1.8%	-3.6%	-1.8%
Planned	111	122	0%	-25.0%	-27.0%
Proposed	330	361	0%	-1.5%	-6.0%
SLU ₃ O ₈ UEQUITIES PERFORMANCE	As of 08/31/2019		MoM	YTD	YoY
SLU ₃ O ₈ Equity Index ³	499.96		-1.1%	-15.3%	-18.5%
UProducers Average ⁴	MoM Top Performer: T.URE +5.3%		-4.5%	-17.2%	-31.7%
UDevelopers Average ⁴	MoM Top Performer: T.FSY +41.9%		-7.2%	-13.0%	-33.9%
UExplorers Average ⁴	MoM Top Performer: V.AZZ +2.4%		-12.6%	-26.7%	-41.6%

1. Price as per UxC, LLC.

2. As per World Nuclear Association; MoM, YTD and YoY percentages based on Global Reactor Count

3. SLU₃O₈ Equity Index Performance based on CCO, DML, EFR, UEX, URE, UEC & U

4. Performance Averages from the SLU₃O₈ UEquity list of companies;

Updated on September 1, 2019

MONTH IN REVIEW

As we come out of the summer months, we must unfortunately report that August 2019 can only be remembered for its record lows. As can be seen in the Dashboard, the spot and long-term prices remained somewhat stable through August; however, there are a few other notable items.

Globally, planned reactors closed out August at 111 – down 25% this year alone. This number has not been this low since early 2009 but back then, the number was on the rise, not falling.

Most of those reductions came from the USA (-11), Japan (-8), U.K (-5) and Poland, which fell from six planned down to zero.

August's other lows, presented themselves in the form of uranium equity stock prices. Most equities on our list hit their 52-week low in August with the remainder hovering on or around them.

Despite ongoing efforts to lighten the load of global uranium inventories, we will continue to see ongoing negative impacts on the sector until real fuel price movements occur.

Comments or questions ? Ask us on Twitter ([@Sightlineu3o8](#)) or email us at editor@sightlineu3o8.com.

WORLD NUCLEAR PERFORMANCE REPORT - 2019



Source: [World Nuclear Association](#)

The world's nuclear reactors made a growing contribution to supplying clean and reliable electricity in 2018. Global nuclear generation was 2563 TWh, up 61 TWh on the previous year.

At the end of 2018 the capacity of the world's 449 operable reactors was 397 GWe, up 4 GWe on the previous year. Nine new reactors were connected to the grid, with a combined capacity of 10.4 GWe. Seven reactors were closed down in 2018, with a combined capacity of 5.4 GWe. Of these, four are Japanese reactors that had not generated since 2011, and a fifth, Chinshan 1, had not generated since 2015, so these closures had minimal impact on

CONTINUED ON PG 2

WORLD NUCLEAR PERFORMANCE REPORT - 2019 (CONT'D)

overall electricity generation in 2018. Four reactors in Japan, with a combined capacity of 5.6 GWe, were given approval to restart.

The number of reactors under construction at the end of 2018 was 55, with construction starts on five reactors, compared to the nine that have been connected to the grid following completion of construction.

In Asia, nuclear generation rose by more than 10%, to reach 533 TWh, now more than one-fifth of global generation. In China, the first AP1000 and EPR reactors began commercial operation, alongside Russian VVER V-428M and Chinese ACPR-1000 reactors. Although the four reactors gaining approval to restart in Japan brought the total number to nine, the pace of progress to restarting more reactors remains slow, continuing Japan's reliance on fossil fuels.

The median construction time in 2018 was eight-and-a-half years; this was primarily due to the start-up of reactors utilizing new designs. The average construction time for reactors in recent years has been around five-to-six years. We should see construction times return to more typical recent durations in 2019.

Construction started on the first of four planned units at Akkuyu, in Turkey and the first formal start of construction in West & Central Europe since 2007 began at Hinkley Point C, with first concrete poured for the first of two EPR units.

In Russia preparations on the first floating nuclear power plant continued, with both reactors on board the Akademik Lomonosov reaching first criticality. The vessel should be installed at Pevek later this year.

Reactors in the USA produced more electricity in 2018 than in any previous year, with 808 TWh generated. One reactor retired, Oyster Creek, despite being licensed for an additional ten years of operation, because revised water use rules would require construction of cooling towers. While some US states have introduced schemes that support nuclear generation by recognizing the value of its clean, low-carbon generation, elsewhere other reactors are under threat from distorted and challenging market conditions.

The world's nuclear plants continue to perform excellently. Growth is strong, with more than 20 new reactors scheduled to be connected before the end of 2020. For the industry to reach the Harmony goal of supplying at least 25% of the world's electricity before 2050, much greater commitment from policy-makers will be required.

Recent Industry Highlights

In 2018, construction started on new reactors in Turkey and the UK, strengthening the trend of an increasing number of countries choosing nuclear energy to help meet their future energy needs.

The need for the reliable, predictable and clean electricity generated by nuclear has never been greater and, worldwide, that is reflected in the growing number of new build programmes underway. In the emerging, industrial and high-growth markets of China and India, demand for reliable electricity that does not pollute the air necessitates continued growth in investment in nuclear power.

However, a number of factors – both internal and external – are creating profound challenges for nuclear power in some of its most mature markets. Of the 449 reactors that were operable at the end of 2018, over half were in the USA and Europe where, despite the vital importance of nuclear to achieving sustainable energy goals, reactor retirements continue to outpace capacity additions.

To view the entire report, [click here](#).

TOP SUPPLY NEWS

[Australian parliament to launch nuclear energy inquiry](#)

August 2, 2019

[Warning: Uranium to explode](#)

August 7, 2019

[4 Companies consider jointly operating nuclear power plants](#)

August 9, 2019

[IEA rings alarm bell on phasing out nuclear energy](#)

August 13, 2019

[Kazatomprom announces extension of production cuts](#)

August 20, 2019

[Kepco's losses piles up amid debate over anti-nuclear power policy](#)

August 23, 2019

[Japanese utilities start selling uranium fuel into depressed market](#)

August 23, 2019

[Nuclear power in Australia not realistic for at least a decade, Ziggy Switkowski says](#)

August 29, 2019

TOP DEMAND NEWS

[The future of uranium as a sustainable source of energy](#)

August 2, 2019

[Bipartisan senate support for nuclear grows with \\$ 7.5B bill to extend life of current fleet](#)

August 6, 2019

[TVA completes upgrades at its oldest and biggest nuclear power plant, boosting output](#)

August 6, 2019

[Sixth Yangjiang unit enters commercial operation](#)

August 8, 2019

[Second Chinese EPR reaches full capacity](#)

August 9, 2019

KAZATOMPROM ANNOUNCES EXTENSION OF PRODUCTION CUTS

SOURCE: KAZATOMPROM



Source: [Kazatomprom](#)

JSC National Atomic Company "Kazatomprom" ("Kazatomprom" or "the Company") announced on August 2019 its intention to continue to flex down production by 20% through 2021, compared to the planned levels under Subsoil Use Contracts. The Company will now begin working with joint venture partners to assess the impact and implement the plan across all of Kazakhstan's uranium mines.

The decision to extend production curtailment reflects the fact that the uranium market is still recovering from a period of oversupply, and uranium prices remain low. As the largest uranium producer in the world, Kazatomprom recognizes the need for global output to better align with current demand.

The Company is announcing the plan well before year-end to ensure its mining subsidiaries and joint ventures will be able to incorporate the required changes into their 2020 capital expenditure budgets, accounting for the revised production levels in 2021. No decision has been taken regarding production levels beyond 2021 and the Company continues to monitor market conditions. However, Kazatomprom does not expect to return to full production until a sustained market recovery is evident, and demand and supply conditions signal a need for more uranium.

The full implementation of this decision would remove up to 5,600 tU from anticipated global primary supply in 2021. Kazatomprom's 2021 production would remain below 23,000 tU (100% basis), which is expected to be in line with production in 2019 and 2020, where a 20% reduction of annual Subsoil Use Contract levels was reflected in previous reports (Competent Persons' Report, IPO Prospectus 31 October 2018).

Galymzhan Pirmatov, Chief Executive Officer of Kazatomprom, commented: "Uranium recovered somewhat from the lows of 2016, but the market is still signaling that there is no need to bring back existing production capacity. Keeping production levels flat for now supports a return to long-term sustainability in the market, which will benefit all stakeholders. Delaying the return to planned output levels also demonstrates our commitment to the value-over-volume philosophy at the core of our strategy." ●

Kazatomprom scheduled a conference call to discuss the full 2019 half-year operating and financial results, after they were released on Tuesday, 27 August, 2019.

To listen to the replay of the conference call, [please click here](#). To access the presentation, [please click here](#).

TOP DEMAND NEWS (CONT'D)

[US Giant Manufacturer Is Interested in the Construction of the Belene NPP](#)

August 13, 2019

[Construction of Bushehr NPP second stage is ahead of schedule](#)

August 14, 2019

[Turkey's Akkuyu nuclear plant in danger due to lack of oversight](#)

August 14, 2019

[Rosatom postpones fast reactor project, report says](#)

August 14, 2019

[Belene project attracts five expressions of interest](#)

August 19, 2019

[Japan expects no nuclear reactor restarts this year](#)

August 23, 2019

[TEPCO Eyes Decommissioning for Some Kashiwazaki-Kariwa N-Reactors](#)

August 26, 2019

[Uranium Week: Activity Reawakens](#)

August 27, 2019

[India to get atomic boost! Six more nuclear power plants to be built by Russia](#)

August 28, 2019

TOP ALTERNATIVE NEWS

[DOE Preparation of an EIS to Examine Building a Versatile Test Reactor in the U.S.](#)

August 6, 2019

[What is enriched uranium?](#)

August 8, 2019

[Oak Ridge advanced manufacturing facility develops technologies for new methods of production](#)

August 13, 2019

[Tories plan mini-nuclear reactors for the North in major change to energy policy](#)

August 13, 2019

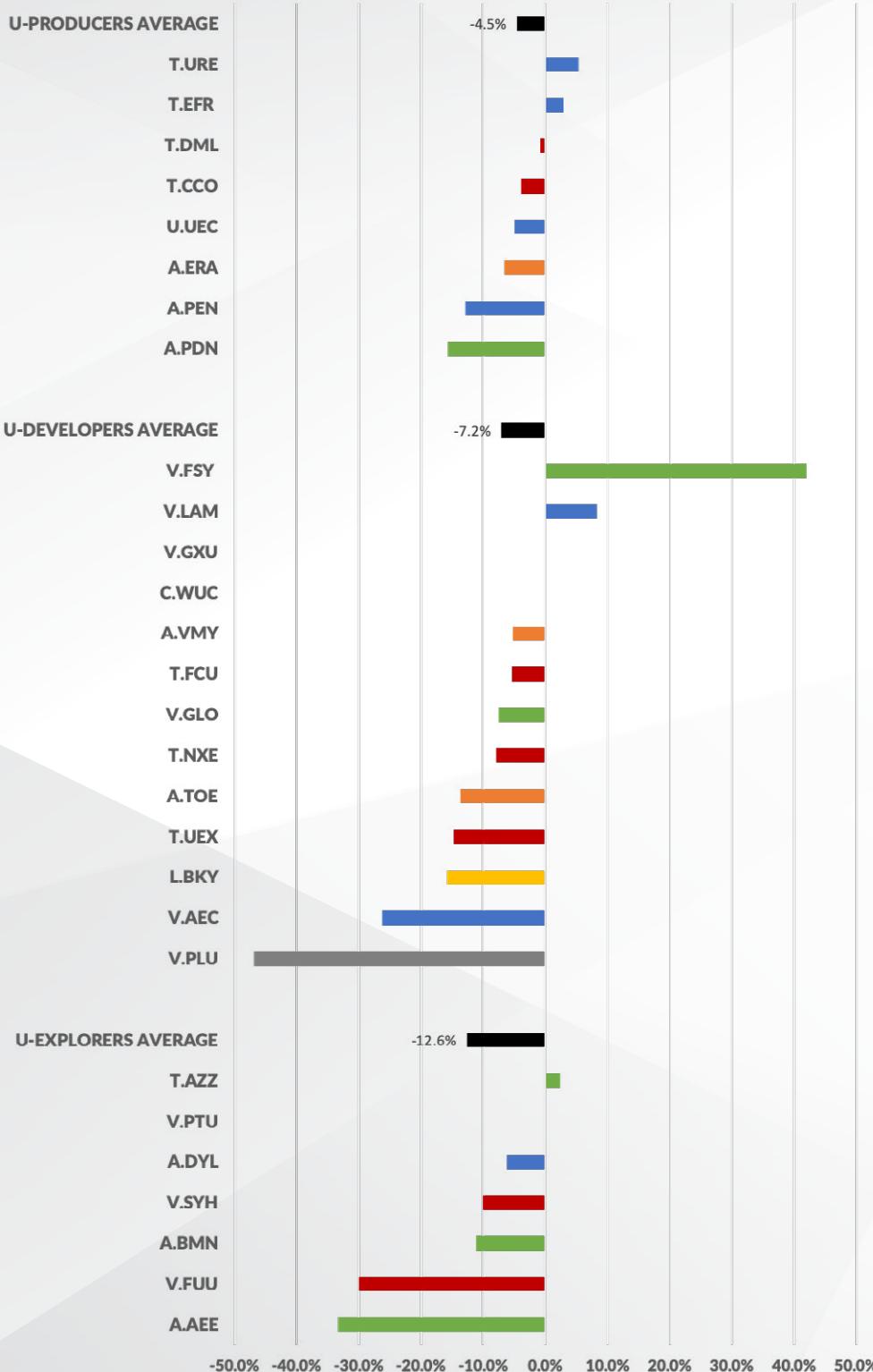
[International leaders convene at Penn State to map future of nuclear power](#)

August 13, 2019

SLUC^{3C} UEQUITIES MONTHLY PERFORMANCE

Project Regional Focus:

Red: Canada Blue: USA Green: Africa Orange: Australia Yellow: Spain Gray: Peru



TOP ALTERNATIVE NEWS (CONT'D)

[Reactor innovation center to come to INL](#)
August 15, 2019

[Korean reactor design certified for use in USA](#)
August 27, 2019

TOP EQUITIES NEWS

[U.UEC Announces Results of Annual General Meeting](#)
August 1, 2019

[T.EFR Announces Q2-2019 Results](#)
August 2, 2019

[Kazatomprom 2Q19 Operations and Trading Update](#)
August 2, 2019

[V.PLU Provides an Update on Remaining Concession Resolutions from Administrative Procedure](#)
August 6, 2019

[Ur-Energy cuts costs after Trump declines to set uranium output quotas](#)
August 6, 2019

[T.NXE completes phase I of Feasibility stage drill program at Arrow](#)
August 7, 2019

[T.DML reports results from Q2 2019](#)
August 8, 2019

[T.UEX Christie Lake Summer Drill Program Underway](#)
August 13, 2019

[Uranium Giant Cameco Can't Catch a Break](#)
August 13, 2019

[T.FCU Hits High-Grade Uranium in Multiple Areas at PLS](#)
August 14, 2019

[T.GLO Announces Q2 2019 Results](#)
August 14, 2019

[V.PLU Provides Corporate Update](#)
August 19, 2019

[T.NXE commences maiden exploration drilling on prospective SW1 property](#)
August 26, 2019

URANIUM PRICES	SPOT PRICE US\$/lb U ₃ O ₈	LONG TERM PRICE US\$/lb U ₃ O ₈
UC PRICES		
August 31, 2019	\$25.28 ↓	\$32.00 ●

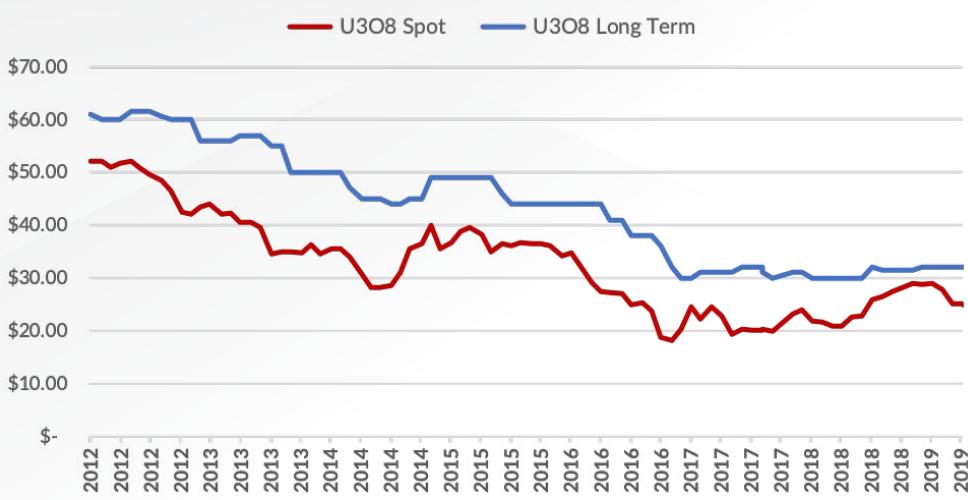
TOP EQUITIES NEWS (CONT'D)

[L.KAP 2019 Half-Year Results Presentation & Conference Call](#)
August 27, 2019

[T.DML announces positive initial results from ISR field test program at Phoenix test area 1](#)
August 27, 2019

[Kazatomprom 1H19 Financial Results](#)
August 27, 2019

U₃O₈ PRICES - HISTORIC



TOP POLITICS NEWS

[Ghana vice president confirms nuclear commitment](#)
August 2, 2019

[Questions raised over future of nuclear power at Keidanren meet](#)
August 6, 2019

[Signing of a memorandum of cooperation to strengthen regulation of nuclear safety](#)
August 19, 2019

[Preparing Ukraine's next nuclear generation](#)
August 19, 2019

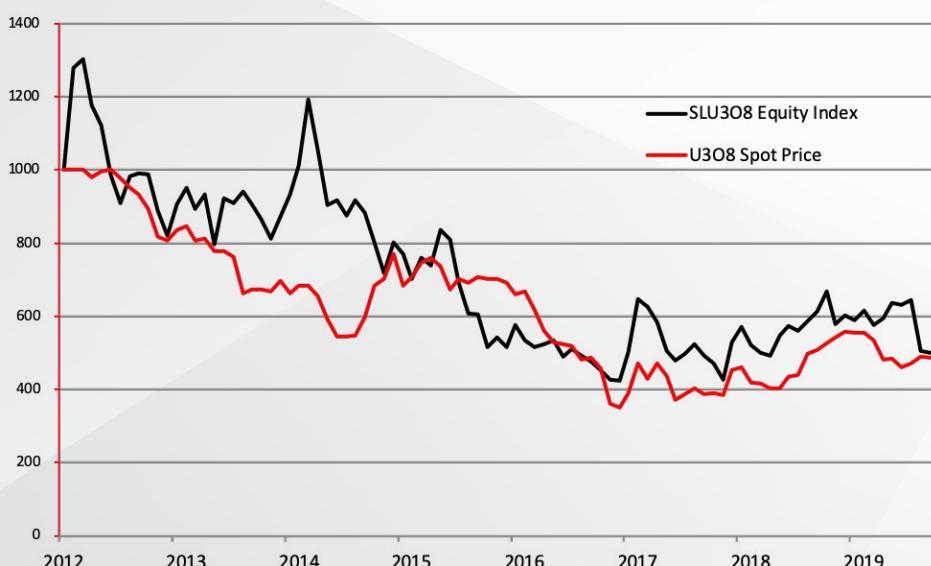
[Welder shortage threatens Boris Johnson's UK nuclear revival](#)
August 19, 2019

[Policymakers must drive nuclear further, report says](#)
August 29, 2019

[IPCC Head to speak at International Conference on Climate Change and the Role of Nuclear Power](#)
August 29, 2019

[Nuclear power in Australia not realistic for at least a decade](#)
August 29, 2019

SLUC³ EQUITY INDEX



SLUC UEQUITIES

PRODUCING COMPANIES		COUNTRY FOCUS	PRICE AS OF 08/31/2019	52 WEEK HIGH	52 WEEK LOW	MARKET CAP (MILLIONS)
T.CCO	Cameco Corp	Canada	\$11.68	\$17.12	\$10.70	\$4,622.92
T.DML	Denison Mines Corp	Canada	\$0.61	\$0.89	\$0.52	\$360.03
T.EFR	Energy Fuels Inc	United States	\$2.42	\$5.38	\$2.00	\$235.06
A.ERA	Energy Resources of Australia Limited	Australia	\$0.215	\$0.405	\$0.19	\$111.31
A.PDN	Paladin Energy Ltd	Namibia	\$0.135	\$0.22	\$0.11	\$210.25
A.PEN	Peninsula Energy Limited	United States	\$0.17	\$0.33	\$0.155	\$76.62
T.URE	Ur-Energy Inc	United States	\$0.79	\$1.30	\$0.70	\$126.36
U.UEC	Uranium Energy Corp	United States	\$0.937	\$1.80	\$0.83	\$169.28
DEVELOPMENT COMPANIES						
V.AEC	Anfield Energy Inc	United States	\$0.14	\$0.44	\$0.12	\$11.50
L.BKY	Berkeley Energia Ltd	Spain	\$13.25	\$42.25	\$7.70	\$34.24
T.FCU	Fission Uranium Corp	Canada	\$0.35	\$0.75	\$0.32	\$170.15
T.FSY	Forsys Metals Corp	Namibia	\$0.22	\$0.32	\$0.13	\$34.51
V.GLO	Global Atomic Corporation	Niger	\$0.49	\$0.56	\$0.405	\$69.87
V.GXU	Govix Uranium Inc	Niger	\$0.17	\$0.25	\$0.12	\$71.95
T.LAM	Laramide Resources Ltd	United States	\$0.26	\$0.52	\$0.205	\$37.05
T.NXE	NexGen Energy Ltd	Canada	\$1.74	\$3.31	\$1.455	\$619.02
V.PLU	Plateau Energy Metals Inc	Peru	\$0.255	\$1.23	\$0.24	\$20.28
A.TOE	Toro Energy Limited	Australia	\$0.019	\$0.035	\$0.018	\$43.45
T.UEX	UEX Corporation	Canada	\$0.145	\$0.23	\$0.13	\$55.30
A.VMY	Vimy Resources Ltd	Australia	\$0.072	\$0.105	\$0.046	\$37.54
C.WUC	Western Uranium and Vanadium	United States	\$0.89	\$3.32	\$0.78	\$30.08
EXPLORATION COMPANIES						
A.AEE	Aura Energy Limited	Sweden, Maritania	\$0.008	\$0.023	\$0.008	\$9.98
T.AZZ	Azarga Uranium Corp	United States	\$0.215	\$0.295	\$0.105	\$39.76
A.BMN	Bannerman Resources Limited	Namibia	\$0.04	\$0.063	\$0.034	\$41.66
A.DYL	Deep Yellow Limited	Namibia	\$0.305	\$0.58	\$0.26	\$68.94
V.FUU	Fission 3.0 Corp	Canada	\$0.07	\$0.295	\$0.065	\$9.93
V.PTU	Purepoint Uranium Group Inc	Canada	\$0.065	\$0.105	\$0.05	\$13.96
V.SYH	Skyharbour Resources Ltd	Canada	\$0.27	\$0.57	\$0.22	\$17.28
OTHERS						
T.U	Uranium Participation Corp	Canada	\$4.25	\$5.14	\$3.99	\$586.76
L.GCL	Geiger Counter Ltd	UK	\$15.90	\$24.70	\$15.47	\$13.90
U.URA	Global X Uranium ETF	US	\$10.60	\$13.67	\$9.96	\$186.37
L.YCA	Yellow Cake Plc	UK	\$201.00	\$255.00	\$195.00	\$177.31
T.HURA	Horizon Global Uranium ETF	Canada	\$9.04	\$11.01	\$8.57	\$2.71

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

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ABOUT THE SLU₃O₈ OUTLOOK

The SLU₃O₈ Outlook; is an in-depth forecast model, optimized to anticipate the timing and extent of pending changes in uranium prices. Projections are maintained quarterly and based on the analysis of uranium price movement relative to detailed supply and demand changes over the past 15 years.

ABOUT THE SLU₃O₈ EQUITY INDEX

The SLU₃O₈ 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, 2012 (1,000.00) of the following companies*:

- Cameco Corporation
- Denison Mines Limited
- Energy Fuels Inc.
- UEX Corporation
- UR-Energy Inc.
- Uranium Energy Corp.
- Uranium Participation Corp

* As the significant stock price movement of Fission Uranium Corp and NexGen Energy Ltd. is a function of major uranium discoveries, we have not included their stock performance in the Index to better reflect the uranium equities market in general.

ABOUT SIGHTLINE SLU₃O₈

Sightline U₃O₈ 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
editor@sightlineu3o8.com

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