

URANIUM PRICES <sup>1</sup>	As of 09/30/2020	MoM	YTD	YoY
Spot Price US\$/lb U <sub>3</sub> O <sub>8</sub>	\$30.05	-3.1%	20.5%	17.2%
Long-Term Price US\$/lb U <sub>3</sub> O <sub>8</sub>	\$33.00	0%	3.1%	3.1%

GLOBAL REACTOR <sup>2</sup>	COUNT	GWe	MoM	YTD	YoY
Operable	441	392	0%	-0.2%	-0.7%
Under Construction	53	59	-1.9%	-1.9%	-1.9%
Planned	106	106	-2.8%	-2.8%	-4.5%
Proposed	325	354	-1.2%	-1.5%	-1.5%

SLU <sub>3</sub> O <sub>8</sub> EQUITIES PERFORMANCE	As of 09/30/2020	MoM	YTD	YoY
SLU <sub>3</sub> O <sub>8</sub> Equity Index <sup>3</sup>	486.43	-12.8%	0.5%	-6.2%
UProducers Average <sup>4</sup>	MoM Top Performer: A.PDN: 0%	-10.3%	-0.4%	-10.6%
UDevelopers Average <sup>4</sup>	MoM Top Performer: V.EU: +11.9%	-9.1%	31.4%	21.2%
UExplorers Average <sup>4</sup>	MoM Top Performer: A.DYL: +31.3%	-7.2%	22.0%	15.8%

1. Price as per UxC, LLC.  
 2. As per World Nuclear Association; MoM, YTD and YoY percentages based on Global Reactor Count  
 3. SLU<sub>3</sub>O<sub>8</sub> Equity Index Performance based on CCO, DML, EFR, UEX, URE, UEC & U  
 4. Performance Averages from the SLU<sub>3</sub>O<sub>8</sub> UEquity list of companies;

Updated on October 1, 2020

### MONTH IN REVIEW

September – in a word – was slow. Overall, neither spot purchases nor term contracts saw their anticipated volumes while prices continued to hover in the low \$30.00 range. The closing spot price was \$30.05 while the term price remained at \$33.00.

Uranium equities also calmed down, moving in step with the overall stock markets as they prepare themselves for decreasing government COVID 19 protections and a US Presidential election. The SLU3O8 Equity Index was down 12.8% closing out the month at 486.43.

Of note is the resumption (or non-resumption) of Cigar Lake production which had been expected to begin in September. The facilities remain closed with Cameco reminding investors that a restart will be driven by “market related and cost-structure factors” – not simply the resolution of COVID 19 safety concerns.

Comments or questions?

Ask us on Twitter ([@SightlineU3O8](https://twitter.com/SightlineU3O8)) or email us at [editor@sightlineu3o8.com](mailto:editor@sightlineu3o8.com).

## AMERICA'S NUCLEAR ENERGY LANDSCAPE PRE-ELECTION



Source: [INN](https://www.inn.com)

Energy production and procurement are paramount concerns in most countries, and the US is no exception. And even though many new and long-term issues are taking center stage ahead of November's election, energy remains an area of particular importance.

Currently, 38 percent of America's electricity is generated using natural gas, and an additional 23 percent comes from the burning of coal. Nuclear energy accounts for roughly 20 percent, while the final portion of approximately 20 percent is a mix of renewables and clean energy.

Nuclear energy has been a hard sell in decades past, but some countries around the

**CONTINUED ON PG 2**

## AMERICA'S NUCLEAR ENERGY LANDSCAPE PRE-ELECTION (CONT'D)

world have determined that it's a crucial component in establishing reliable energy grids that are less pollutive.

For the approaching election, nuclear energy is included in the campaign platforms for both President Donald Trump and Democratic candidate Joe Biden.

The Trump campaign didn't adopt a new platform for the election, instead reiterating the 2016 version.

In terms of energy, it shows support for the "development of all forms of energy that are marketable in a free market economy without subsidies, including coal, natural gas, nuclear power and hydropower." The GOP has also worked to lift restrictions allowing for "the responsible development of nuclear energy."

For his part, Biden has moved his party away from its once anti-nuclear stance towards one that would embrace nuclear energy research as a way of tackling climate change.

To better understand the complexities of the American nuclear sector, the Investing News Network spoke with Philip Johnson, vice president of fuel cycle at UxC, a nuclear market research and analysis firm based in the US. Here's what he said ahead of the upcoming election.

Investing News Network (INN): The Trump campaign is using its 2016 energy platform again this time around. It states that 20 percent of the country's electricity is generated by nuclear power, pointing out that only a handful of plants have been built in the last three decades. Over the last four years have new plants come online or been commissioned?

Philip Johnson (PJ): Only one new nuclear reactor was commissioned over the past four years in the US: Unit 2 of the Tennessee Valley Authority's (TVA) Watts Bar nuclear power plant in Tennessee, which was brought online in October 2016.

But it should be noted that Watts Bar 2 was not a new reactor spawned from the "nuclear renaissance" era in the early 2000s, but rather it commenced construction in the 1970s only to see the project suspended in the mid-1980s. TVA decided to restart construction on the partially built unit in 2007, and brought the unit into commercial operation in late 2016. So while Watts Bar 2 is a new unit brought online during the specified timeframe, it is not necessarily a "new" reactor.

On the other hand, four Westinghouse AP1000 reactor projects broke ground in 2013 at two plant sites: Units 2 and 3 at the Summer nuclear power plant in South Carolina and Units 3 and 4 at the Vogtle nuclear power plant in Georgia. After significant cost and schedule overruns, and the eventual bankruptcy declaration of prime contractor Westinghouse in 2017, the two reactors at the Summer plant were scrapped, while the other two reactors at Plant Vogtle in Georgia are currently nearing the commissioning stage, targeted for startup in November 2021 and November 2022, respectively.

INN: Has electricity output from nuclear power increased?

PJ: Focusing on just the US market specifically, the US nuclear fleet has shrunk to 96 reactors, down from 99 units online in 2018. Yet it should be noted that even amid a wave of premature retirements, US reactors are operating at record capacity factors and electricity output amid the some of the lowest per MWh costs in a generation.

For example, in 2019, US nuclear plants achieved their highest electricity generation total ever at 809.4 billion kWh, which is up from 797.2 billion kWh in 2014.

In addition, US reactors generated that record amount of power at an industry average of US\$30.42 per MWh in 2019, which is down 8 percent compared to US\$32.91 in 2018. So while US reactors are operating at optimal efficiency, they still are not being appropriately valued in the US energy markets.

Moreover, the US Energy Information Administration issued a report in January 2020 that projects US nuclear power generation will decline through the 2020s due to additional reactor retirements.

INN: The current administration likes to use the term "energy independence," and points to the oil and gas sector. However, if 20 percent of electricity is generated by nuclear, shouldn't nuclear be part of that conversation?

PJ: Absolutely. And the Trump administration has looked at several policy initiatives to keep the US fleet afloat. However, these initiatives have been met with minimal positive returns. Nuclear energy provides so many benefits that all politicians should be able to get behind, including reliability, fuel resiliency, dispatchability and 100 percent carbon-free baseload generation. All these reasons point to why nuclear power is starting to garner additional support across the

## TOP SUPPLY NEWS

[Vietnam urged to reconsider nuclear power programme](#)

September 6, 2020

[Uranium: COVID-19 Brings Supply Deficit To A Head](#)

September 8, 2020

[For nuclear plants operating on thin margins, growing climate risks prompt tough choices](#)

September 10, 2020

[Markets lack a price signal for nuclear investment](#)

September 13, 2020

[Nuclear Key to the Clean Energy Transition - Conclusions of the 2020 IAEA Scientific Forum](#)

September 30, 2020

## TOP DEMAND NEWS

[Emirati Experts Key To The Successful Start-Up And Connection Of Unit 1 Of The Barakah Nuclear Energy Plant](#)

September 7, 2020

[Karachi nuclear power plant's K-2 Unit completes thermal testing](#)

September 8, 2020

[Tianwan nuclear power plant's unit 5 ready for commercial operation](#)

September 9, 2020

[China readying for nuclear expansion, says Zheng](#)

September 11, 2020

[China loads fuel at first nuclear unit with home-grown reactor](#)

September 14, 2020

[Byron nuclear plant, facing 2021 closure, getting refueling outage in October](#)

September 28, 2020

[Recovering nuclear to cut South Korean 4Q coal burn](#)

September 29, 2020

[Fuel assembly loading progressing at first Hualong One reactor in Fujian](#)

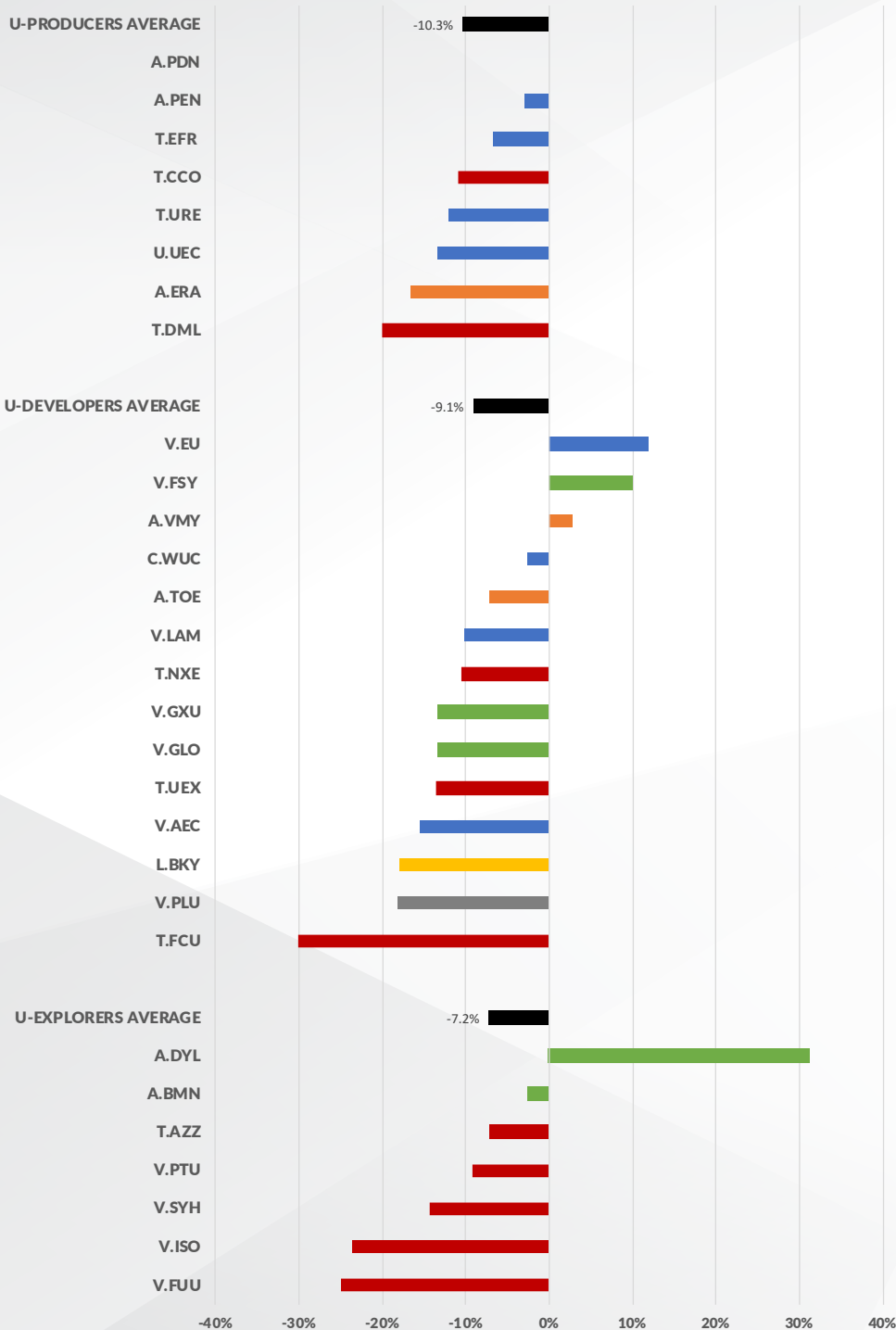
September 29, 2020

## SLUO EQUITIES MONTHLY PERFORMANCE (SEPTEMBER 30, 2020)

### TOP EQUITIES NEWS

**Project Regional Focus:**

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



[V.EU Announces Formation of Group 11 Technologies Environmentally-Friendly Solutions and In Place Mining to Extract Precious Metals](#)  
September 1, 2020

[V.ISO Intersects Strong Uranium Mineralization in Initial Summer Drill Holes at the Hurricane Zone](#)  
September 3, 2020

[V.PLU Engages Strategic Advisor for Falchani Lithium Project](#)  
September 4, 2020

[T.U Reports Estimated Net Asset Value at August 31, 2020](#)  
September 8, 2020

[V.EU Signs Binding Agreement to Acquire Westwater Resources' Uranium Production & Resource Assets](#)  
September 9, 2020

[V.EU Announces Appointment of Paul Goranson as Chief Executive Officer](#)  
September 14, 2020

[V.ISO Drills 12.8% U3O8 over 9.0m and Expands Hurricane Zone to the South with Two Strongly Mineralized Holes](#)  
September 17, 2020

[V.PLU Provides Peru and Corporate Update](#)  
September 17, 2020

[V.EU announces proposed \\$4.8 million private placement financing](#)  
September 18, 2020

[T.CCO Investor Webcast Advisory](#)  
September 22, 2020

[T.U Corporation Reports Financial Results for the Quarter Ended August 31, 2020](#)  
September 24, 2020

[T.CCO Provides Updated Date for Q3 Results and Conference Call](#)  
September 24, 2020

URANIUM PRICES	SPOT PRICE US\$/lb U <sub>3</sub> O <sub>8</sub>	LONG TERM PRICE US\$/lb U <sub>3</sub> O <sub>8</sub>
<b>UC PRICES</b>		
September 30, 2020	\$30.05 ↓	\$33.00 ●

## TOP POLITICS NEWS

[Duke Energy's carbon reduction plans see 'valuable' role for nuclear](#)  
September 3, 2020

[China ditches US nuclear technology in favour of home-grown alternative](#)  
September 14, 2020

[U.S. Department of Commerce Announces Draft Amendment to the Suspension Agreement on Uranium from the Russian Federation](#)  
September 14, 2020

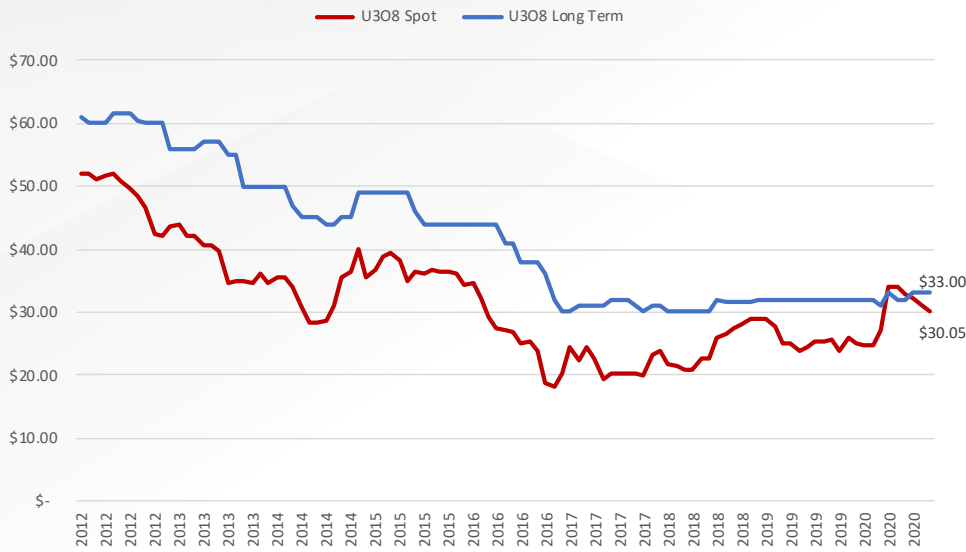
[Nuclear power and the energy transition in Bulgaria](#)  
September 29, 2020

[America's Nuclear Energy Landscape Pre-Election](#)  
September 29, 2020

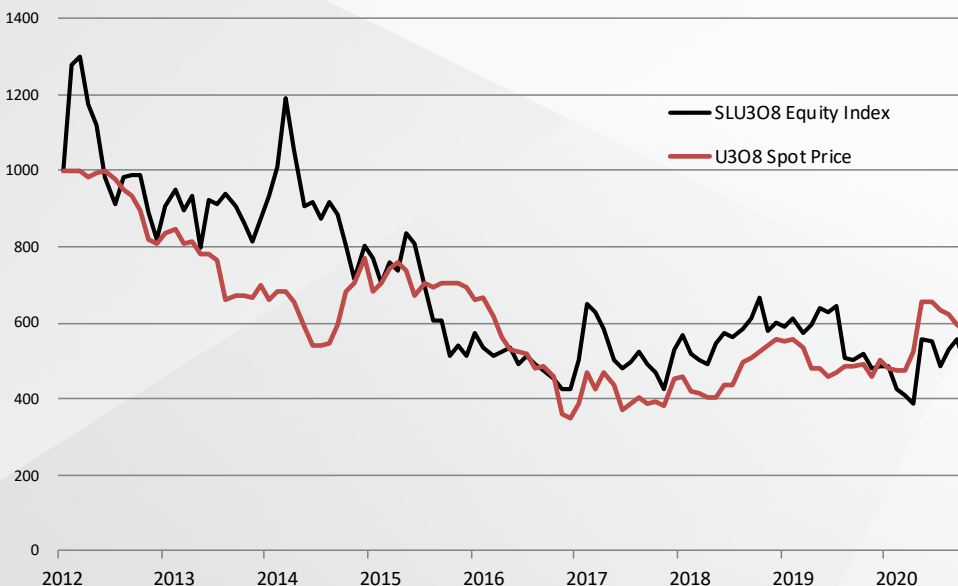
[US looking forward to Polish partnership on nuclear energy development](#)  
September 29, 2020

[Nuclear Key to the Clean Energy Transition – Conclusions of the 2020 IAEA Scientific Forum](#)  
September 30, 2020

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



## SLU3O8 EQUITY INDEX



## TOP ALTERNATIVE NEWS

[China still pursuing nuclear fuel reprocessing plant with France](#)  
September 4, 2020

[Bruce Power, BWXT combine on MCR, medical isotopes projects to stimulate made-in-Ontario economic recovery](#)  
September 9, 2020

[The next generation of American nuclear](#)  
September 14, 2020

[TerraPower and Centrus team up for HALEU production](#)  
September 16, 2020

[Koeberg celebrates a key milestone with arrival of the Steam Generators](#)  
September 30, 2020

**SLU3C UEQUITIES**

PRODUCING COMPANIES		COUNTRY FOCUS	PRICE AS OF 09/30/2020	52 WEEK HIGH	52 WEEK LOW	MARKET CAP (MILLIONS)
T.CCO	Cameco Corp	Canada	\$13.45	\$16.72	\$7.69	\$5,324.13
T.DML	Denison Mines Corp	Canada	\$0.56	\$0.75	\$0.235	\$350.59
T.EFR	Energy Fuels Inc	United States	\$2.22	\$3.29	\$1.10	\$278.75
A.ERA	Energy Resources of Australia Limited	Australia	\$0.15	\$0.20	\$0.14	\$553.71
A.PDN	Paladin Energy Ltd	Namibia	\$0.125	\$0.18	\$0.035	\$253.49
A.PEN	Peninsula Energy Limited	United States	\$0.065	\$0.19	\$0.056	\$57.37
T.URE	Ur-Energy Inc	United States	\$0.66	\$1.00	\$0.39	\$111.85
U.UEC	Uranium Energy Corp	United States	\$0.9968	\$1.29	\$0.35	\$205.18
DEVELOPMENT COMPANIES						
V.AEC	Anfield Energy Inc	United States	\$0.055	\$0.16	\$0.04	\$7.80
L.BKY	Berkeley Energia Ltd	Spain	\$34.50	\$53.50	\$6.75	\$89.22
V.EU	Encore Energy Corp	United States	\$0.375	\$0.54	\$0.07	\$60.07
T.FCU	Fission Uranium Corp	Canada	\$0.315	\$0.495	\$0.09	\$173.27
T.FSY	Forsys Metals Corp	Namibia	\$0.165	\$0.22	\$0.06	\$28.37
V.GLO	Global Atomic Corporation	Niger	\$0.65	\$0.90	\$0.23	\$116.72
V.GXU	Goviex Uranium Inc	Niger	\$0.13	\$0.19	\$0.075	\$66.42
T.LAM	Laramide Resources Ltd	United States	\$0.265	\$0.37	\$0.10	\$44.06
T.NXE	NexGen Energy Ltd	Canada	\$2.31	\$2.62	\$0.76	\$870.33
V.PLU	Plateau Energy Metals Inc	Peru	\$0.27	\$0.40	\$0.16	\$28.32
A.TOE	Toro Energy Limited	Australia	\$0.013	\$0.019	\$0.003	\$37.10
T.UEX	UEX Corporation	Canada	\$0.16	\$0.195	\$0.065	\$67.10
A.VMY	Vimy Resources Ltd	Australia	\$0.037	\$0.07	\$0.019	\$27.21
C.WUC	Western Uranium and Vanadium	United States	\$0.77	\$1.10	\$0.245	\$23.16
EXPLORATION COMPANIES						
T.AZZ	Azarga Uranium Corp	United States	\$0.195	\$0.25	\$0.07	\$40.48
A.BMN	Bannerman Resources Limited	Namibia	\$0.039	\$0.048	\$0.015	\$40.23
A.DYL	Deep Yellow Limited	Namibia	\$0.315	\$0.37	\$0.105	\$77.19
V.FUU	Fission 3.0 Corp	Canada	\$0.075	\$0.105	\$0.02	\$11.33
V.ISO	IsoEnergy Ltd	Canada	\$0.97	\$1.45	\$0.23	\$97.61
V.PTU	Purepoint Uranium Group Inc	Canada	\$0.05	\$0.075	\$0.025	\$10.05
V.SYH	Skyharbour Resources Ltd	Canada	\$0.18	\$0.235	\$0.08	\$16.66
OTHERS						
T.U	Uranium Participation Corp	Canada	\$4.10	\$5.40	\$3.12	\$558.99
L.GCL	Geiger Counter Ltd	UK	\$19.20	\$20.50	\$9.60	\$17.80
U.URA	Global X Uranium ETF	US	\$11.13	\$12.59	\$6.94	\$156.42
L.YCA	Yellow Cake Plc	UK	\$198.80	\$231.50	\$148.20	\$168.21
T.HURA	Horizon Global Uranium ETF	Canada	\$9.42	\$10.84	\$5.79	\$4.00
U.URNM	North Shore Global Uranium Mining ETF	United States	\$29.18	\$34.44	\$15.55	\$13.98
V.URC	Uranium Royalty Corp	Canada	\$1.15	\$1.47	\$0.80	\$84.05

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

## AMERICA'S NUCLEAR ENERGY LANDSCAPE PRE-ELECTION (CONT'D)

political spectrum.

However, the key issue facing nuclear energy today is its inability to compete with very cheap natural gas and subsidized renewable energy capacity in competitive markets like the PJM Interconnection in the mid-Atlantic/midwest.

Since 2013, a total of 11 US reactors have been closed prematurely – with nearly all of them shuttered because of economic challenges. And more well-functioning units are slated for premature retirement, as Exelon (NASDAQ:EXC) announced in August that it plans to shutter the Dresden and Byron nuclear power plants in Illinois in late 2021 if it does not get state support for those reactors.

Another four units – two in California, and one each in New York and Michigan – are also already slated for closure between 2022 and 2025.

INN: The Biden campaign talks about integrating small modular reactors (SMRs) if elected – would SMRs be appropriate for America's energy needs? Is there a leading American SMR company that would be the manufacturer of choice?

PJ: It should be noted that the Democratic Party platform, released a few weeks ago, indeed said it now favors a “technology-neutral” approach toward meeting its carbon abatement goals, and thus nuclear energy is now considered a de facto viable energy source to meet the party's climate goals.

This is noteworthy because the party has not officially listed nuclear as a preferred energy source for nearly 50 years.

Concerning SMRs, while these novel reactor designs are certainly on the cutting edge of new nuclear technology, there are still considerable challenges to making these new designs commercially viable.

The primary near-term SMR prospect in the US is a project to construct 12 NuScale power modules at the Department of Energy's Idaho National Lab. However, it was recently reported that the project's cost estimate has nearly doubled to US\$6.1 billion for 720 MWe of total capacity.

The US has several other SMR and advanced reactor developers, some of whom are gaining traction through both government and private financial support.

There is a real opportunity to replace aging coal and other generation as well as integrate SMRs into a future power system with greater renewables. Still, the economics need to make sense, and while SMRs could become viable candidates to comprise the next fleet of US reactors, right now there is still a disconnect between aspirations and reality. •

ABOUT THE SLU<sub>3</sub>O<sub>8</sub> 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, 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 SLU<sub>3</sub>O<sub>8</sub>

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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