

Uranium Sector

April 24, 2020 David A. Talbot / (416) 350-3082 <u>dtalbot@viiicapital.com</u> Mitch Vanderydt, P.Eng./ (416) 849-7887 <u>mvanderydt@viiicapital.com</u>

US Strategy to Restore Nuclear Energy Leadership Reiterates Funding Request for US Uranium Reserve

The long awaited Nuclear Fuel Working Group Report recommendations were announced by the US Department of Energy yesterday. It is a high level policy, but it appears that last year's Section 232 Petition that failed to argue that uranium imports were a threat to national security did get the White House attention. It then created the Nuclear Fuel Working Group given that the White House recognized how the weakness of the entire front-end of the nuclear fuel cycle had become a threat to national security, and that the US had lost its status as world leader in nuclear. That said, other than confirming plans to fund a Uranium Reserve, there was little new direct help for uranium miners. It might be up to the nuclear industry to strengthen. Support had been improving over recent years. Uranium was added to the Critical Minerals list, government regulations are being simplified, and uranium barters were halted. The States are also providing financial support.

The Strategy Report admitted: 1) American national security is integrated with the health of the front-end of the nuclear fuel cycle; 2) The US needs a strong civil nuclear industry to enable national defense; and 3) Well-defined future defense needs for domestic uranium supply include nuclear weapons (2040s) and Navy propulsion (2050s).

A US\$150 MM budget request to build a domestic Uranium Reserve, previously announced, was confirmed. That would begin with the purchase of uranium from US mines and conversion services in FY2021. We warn that this request has not been passed by Congress, nor might it be considered as high a priority given that much of the economy has closed down due to Covid-19. This is part of a 10-year, \$1.5B plan to support the US domestic uranium industry, and is certainly a step in the right direction. We don't know how purchase or price mechanisms will be addressed, but US\$150 MM could buy as much as ~4.5 MM lbs of U3O8 at US\$33/lb. The US produced ~4 MM lbs pa from 2010-2012 before falling off. Ultimate Uranium Reserve size should be the equivalent of ~24 light water reactor reloads of enriched uranium (17-19 MM lbs U3O8, conversion services for 6000-7000 t UF6 (10.5-12.3 MM lbs U3O8 equivalent), plus enrichment services). We speculate that cost of conversion and enrichment will come from the US\$150 MM annual budgets starting in 2022.

High level policy highlights that stuck out include: 1) US Government will **take bold action** to revive and strengthen the uranium mining industry, support conversion services and end reliance on foreign enrichment capabilities; 2) US Government will **leverage American technological innovation**, **R&D**, etc. to regain American nuclear energy leadership; and perhaps most interesting to us, 3) US Government will **move into markets currently dominated by Russian and Chinese** State Owned Enterprises and recover its position as the world leader in exporting best-in-class nuclear energy technology. End quote. We aren't quite sure how far the US Government might take this final stance. Both the Russian and Chinese Governments own mining companies, produce uranium, manufacture and sell reactors around the globe, and are involved in the front and back ends of the fuel cycle (whereas private companies do these functions in America).

The Strategy to Restore American Nuclear Energy Leadership (link to report) recommends:

- Taking immediate and bold action to strengthen the uranium mining and conversion industries and restore the viability of the entire front-end of the nuclear fuel cycle.
- Utilizing American technological innovation and advanced nuclear RD&D investments to consolidate technical advances and strengthen American leadership in the next generation of nuclear energy technologies.
- Ensuring that there will be a healthy and growing nuclear energy sector to which uranium miners, fuel cycle providers and reactor vendors can sell their products and services.
- Taking a whole-of-government approach to supporting the U.S. nuclear energy industry in exporting civil nuclear technology in competition with state-owned enterprises.

55% of global uranium production has recently gone offline due to COVID-19, which is the main reason that uranium prices have been rising recently. Perhaps exacerbated by the fact that so much uranium is produced by so few. About 6.5 MM lbs per month was removed from annual production rate of 142 MM lbs. Creation of US Uranium reserve using US miners and converters should be positive for US based production/conversion, but we do believe that is price dependent. Even the US Government will have to incentivize new production. Considering that no production comes from the US anyways, if production does begin for US Government consumption, it won't likely impact the spot market. Ultimately, it could take some material away from long-term buyers that would need to look elsewhere, but then again, 4 MM lbs only equates to 2.3% of global demand of 177 MM lbs pa.

The USA could have lost its main sources of uranium. This unforeseen circumstance of closing down uranium mines due to a pandemic adds fuel to the fire about uranium being a strategic commodity. We again point out how just a few mines dominate global production. Canada had supplied 24% of US uranium, and Australia another 18%. Meanwhile, Russia and Kazakhstan, who aren't as impacted, had supplied over 40% of US uranium. The US imports over 90% of its requirements - 30% of global demand, and produced almost nothing last year.

US uranium industry targets are high. During the Section 232 uranium review, the industry suggested that it could provide 13.5 MM lbs pa which is 1/4 of the 50 MM lbs needed by all US reactors. We believe this to be unrealistic, and that maybe US producers could get up to 8.8 MM lbs pa by 2027. But this is only if uranium prices incentivize restarting older mines and new builds. UxC believes the US would need \$40/lb to get over 4 MM lbs of production, and \$45/lb to get over 8 MM lbs. We believe that prices will need to exceed \$50 or \$55/lb in order for this to happen.

Today's news is positive for US uranium companies - assuming the US Uranium Reserve gets funding (catalyst).

US producers will likely benefit the most. Specifically, Energy Fuels (EFR-T, BUY, C\$3.55 TP), Ur Energy (URE-T, BUY, C\$1.40 TP) and Peninsula Energy (PEN-ASX, Not Rated). These stocks rose sharply before and on today's announcement, before sinking back to par by afternoon, perhaps once investors realized there was little new in direct support. Nonetheless, we view the policy as positive that supporting domestic uranium production is still on the agenda of the Trump administration amid the corona virus recovery (we were skeptical). Cameco (CCO-T, NEUTRAL, C\$14.00 TP, covered by R. Profiti) benefit will depend on its pricing power and whether they are high enough to bring its US operations back up and running. Cameco alone could likely fill the Uranium Reserve order on its own, should it be incentivized to turn its three ISR plants back online. Uranium One (Rosatom) will likely not be invited to the party, as I doubt the US will be buying from the Russians, even if it is mined in the USA.

Near-term producers stand to gain. Should budgets be passed and orders prior to FY21, near-term producers might be given enough time to complete their projects. Both Uranium Energy (UEC-US, BUY, US\$1.70 TP) and Azarga (AZZ-T, BUY, C\$0.45 TP) have permitted projects that might make uranium production available. Incentive pricing would likely have to incorporate at least some Capex, at least for Azarga. Other more distant developers include Laramide (LAM-T, Not Rated), EnCore (EU-V, Not Rated) and Western Uranium and Vanadium (WUC-CNQ, Not Rated).

Our top picks remain: Uranium Participation (U-T, BUY, C\$5.40 TP), NexGen Energy (NXE-T, BUY, C\$5.55 TP) and Energy Fuels.

	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	LT
Spot Forecast	\$26	\$29	\$32	\$35	\$39	\$42	\$47	\$50	\$50

Our uranium price forecasts remain unchanged at this time (in US\$/lb U3O8).

Table 1: Eight Capital's uranium peer table.

VIII EIGHT CAPITAL		PEER TABLE - URANIUM										dtall	Bavid A Talbat Mitch Yanderydt P.Eng dtalbot@villicapital.com mvanderydt@villicapital.com (48) 550 3082 (48) 545 7887									
April 23, 2020	Last Price				Target Return Shares O/S Mkt Cap Cash Debt EV Avg Grade Inventory						EV/lb	Performance					Net Asset Value					
	Ticker	Currency	\$/sh	Analyst	Rating	Price	to TP	MM	(\$MM)	(\$MM)	(\$MM)	(\$MM)	%U3O8	MMlbs U3O8	US\$/lb	1 wk	1 mo	3 mo	6 mo	1 yr	NAVPS	P/NAV
Inventory Holders								-														
Uranium Participation	U-TSX	CAD	C\$ 5.00	D. Talbot	BUY	C\$ 5.40	8%	138	C\$ 690	C\$ 3	C\$ 0	C\$ 687	n/a	16.2	30.3	(0%)	58%	24%	23%	15%	C\$ 5.40	0.93x
Yellow Cake	YCA-LON	GBP	GBP\$ 2.23	n/a	n/a	n/a	n/a	88	GBP\$ 196	GBP\$ 7	GBP\$ 0	GBP\$ 189	n/a	9.6	24.3	(2%)	39%	14%	19%	n/a	n/a	n/a
Inventory Holder Ave	rage														27.3	(1%)	49%	19%	21%	15%		0.93x
Producers								-														
Cameco Corp	CCO-TSX	CAD	C\$ 13.83	R. Profiti	NEUTRAL	C\$ 14.00	1%	396	C\$ 5,474	C\$ 1,062	C\$ 1,010	C\$ 5,421	6.4%	1065	3.6	1%	53%	23%	13%	(13%)	C\$ 10.91	1.27x
Energy Fuels	EFR-TSX	CAD	C\$ 2.68	D. Talbot	BUY	C\$ 3.55	32%	115	C\$ 308	C\$ 23	C\$ 23	C\$ 309	0.14%	152	1.4	22%	111%	24%	4%	(36%)	C\$ 3.54	0.76x
UR Energy	URE-TSX	CAD	C\$ 0.83	D. Talbot	BUY	C\$ 1.40	69%	160	C\$ 133	C\$ 10	C\$ 16	C\$ 139	0.061%	43	2.3	11%	100%	17%	9%	(28%)	C\$ 1.43	0.58x
Peninsula Energy Kazatomprom	PEN-ASX KAP-LON	AUD GBP	A\$ 0.22 GBP\$ 14.95	D. Talbot n/a	n/a n/a	n/a n/a	n/a n/a	315 259	A\$ 69 GBP\$ 3.877	C\$ 9	A\$ 23 GBP\$ 131	A\$ 83 GBP\$ 3.748	0.064%	62 1391	0.9 3.3	52% 9%	153% 29%	42% 18%	17% 8%	(24%) n/a	n/a n/a	n/a n/a
	KAP-LON	GBP	GBP3 14.95	n/a	TI/ d	II/ d	n/a	239	GBP\$ 5,677	GBP\$ 200	GBP\$ 151	GBP\$ 5,746	0.054%	1291	2.3					(25%)	TI/d	0.87x
Producer Average															2.3	19%	89%	25%	10%	(25%)		0.87X
Developers					B10/		E 700 /	-								100/	1200/	2001	201	(2.400		0.50
Uranium Energy	UEC-NYSE		US\$ 1.08	D. Talbot	BUY	US\$ 1.70	57%	184	US\$ 199	US\$ 10	US\$ 20	US\$ 208	0.048%	105	2.0	40%	120%	30%	7%	(24%)	US\$ 1.83	0.59x
Denison Mines NexGen Energy	DML-TSX NXE-TSX	CAD CAD	C\$ 0.63 C\$ 1.86	D. Talbot D. Talbot	BUY BUY	C\$ 1.35 C\$ 5.55	114% 198%	626 360	C\$ 394 C\$ 670	C\$ 8 C\$ 52	C\$ 1 C\$ 122	C\$ 387 C\$ 740	2.9% 2.0%	153 348	1.8 1.5	21% 27%	100% 132%	26% 19%	0% 1%	(11%)	C\$ 1.61 C\$ 6.94	0.39x 0.27x
Fission Uranium	FCU-TSX	CAD	C\$ 1.80 C\$ 0.31	D. Talbot D. Talbot	BUY	C\$ 2.00	556%	487	C\$ 148	C\$ 52	C\$ 122 C\$ 0	C\$ 140	2.0%	135	0.8	2/%	144%	13%	2%	(38%)	C\$ 0.94 C\$ 2.28	0.27x 0.13x
Azarga Uranium	AZZ-TSX	CAD	C\$ 0.31	D. Talbot D. Talbot	BUY	C\$ 2.00 C\$ 0.45	125%	186	C\$ 146 C\$ 37	C\$ 0	C\$ 0	C\$ 144 C\$ 37	0.088%	45	0.8	14%	150%	(0%)	38%	(13%)	C\$ 2.28 C\$ 0.54	0.13X 0.37X
Boss Resources	BOE-ASX	AUD	A\$ 0.06	n/a	n/a	n/a	n/a	1,587	A\$ 95	A\$ 5	A\$ 4	A\$ 94	0.088%	63	0.0	0%	82%	18%	(6%)	28%	n/a	n/a
Laramide Resources	LAM-TSX	CAD	C\$ 0.31	n/a	n/a	n/a	n/a	165	C\$ 50	C\$ 1	C\$ 11	C\$ 61	0.11%	118	0.4	(5%)	190%	56%	56%	(20%)	n/a	n/a
Global Atomic	GLO-TSX	CAD	C\$ 0.65	n/a	n/a	n/a	n/a	145	C\$ 95	C\$ 4	C\$ 0	C\$ 91	0.18%	189	0.3	30%	136%	37%	44%	51%	n/a	n/a
Deep Yellow	DYL-ASX	AUD	A\$ 0.24	n/a	n/a	n/a	n/a	245	A\$ 59	A\$ 14	A\$ 0	A\$ 45	0.032%	149	0.2	(9%)	109%	(9%)	(9%)	(43%)	n/a	n/a
Goviex	GXU-TSX	CAD	C\$ 0.16	n/a	n/a	n/a	n/a	439	C\$ 70	C\$ 2	C\$ 0	C\$ 69	0.081%	230	0.2	(6%)	100%	19%	14%	(14%)	n/a	n/a
Vimy Resources	VMY-ASX	AUD	A\$ 0.05	n/a	n/a	n/a	n/a	619	A\$ 28	A\$ 4	A\$ 0	A\$ 24	0.33%	116	0.1	12%	142%	2%	(13%)	(30%)	n/a	n/a
Plateau Energy Metals	PLU-TSX	CAD	C\$ 0.22	n/a	n/a	n/a	n/a	86	C\$ 18	C\$ 0	C\$ 0	C\$ 18	0.021%	124	0.1	(0%)	19%	(17%)	2%	(59%)	n/a	n/a
Bannerman	BMN-ASX	AUD	A\$ 0.04	n/a	n/a	n/a	n/a	1,059	A\$ 44	A\$ 5	A\$ 4	A\$ 43	0.019%	271	0.1	(5%)	133%	17%	5%	(18%)	n/a	n/a
Berkeley Energia	BKY-ASX	AUD	A\$ 0.20	n/a	n/a	n/a	n/a	259	A\$ 52	A\$ 93	A\$ 36	-\$5	0.049%	89	0.0	8%	38%	(0%)	(29%)	(47%)	n/a	n/a
Developers Average															0.6	16%	132%	25%	18%	(5%)		0.35x
Explorers																						
Toro Energy	TOE-ASX	AUD	A\$ 0.01	n/a	n/a	n/a	n/a	2,611	A\$ 21	A\$ 5	A\$ 16	A\$ 32	0.48%	91	0.2	(0%)	167%	(0%)	(43%)	(69%)	n/a	n/a
UEX Corp	UEX-TSX	CAD	C\$ 0.18	n/a	n/a	n/a	n/a	394	C\$ 69	C\$ 4	C\$ 0	C\$ 66	0.43%	99	0.5	3%	150%	59%	30%	6%	n/a	n/a
U3O8 Corp	UWE-TSX	CAD	C\$ 0.05	n/a	n/a	n/a	n/a	23	C\$ 1	C\$ 0	C\$ 0	C\$ 1	n/a	n/a	n/a	80%	(18%)	(59%)	(44%)	(70%)	n/a	n/a
Skyharbour Resources	SYH-TSX	CAD	C\$ 0.21	n/a	n/a	n/a	n/a	75	C\$ 15	C\$ 1	C\$ 0	C\$ 14	n/a	n/a	n/a	14%	128%	24%	8%	(44%)	n/a	n/a
IsoEnergy Ltd	ISO-TSX	CAD	C\$ 0.57	n/a	n/a	n/a	n/a	76	C\$ 43	C\$ 7	C\$ 0	C\$ 37	n/a	n/a	n/a	0%	133%	46%	39%	4%	n/a	n/a
Explorer Average															0.3	19%	112%	14%	(2%)	(35%)		

Source: Company reports, FactSet, Eight Capital estimates

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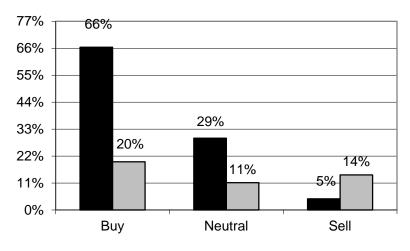
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