

# Industry Note

Equity Research

November 3, 2020

## Metals & Minerals

### Uranium Weekly: Term Contracting Remains Elusive

**Ux Consulting's (UxC) weekly price indicator increased slightly this week to US\$29.55/lb (from US\$29.50/lb).** UxC also reported 3-year and 5-year U3O8 forward prices were flat on a week-over-week basis at US\$32.50/lb and \$35.00/lb, respectively.

**Reported term activity remains low compared with prior years.** Year-to-date, UxC is reporting that ~46Mlbs of uranium has been contracted in the term market; at this time last year, more than 71Mlbs had been placed into term contracts. While activity has improved over the past few months, it appears possible that 2020 term activity could be the lowest in several years. According to UxC, there are a number of non-U.S. utilities active in the term market currently and a couple of utilities are expected to enter the market within the next few months. Kazatomprom noted this week in its Q3/20 report that, in its view, the majority of the term activity to date in 2020 has been from U.S. utilities looking at current market developments and deciding to secure fuel for the next decade.

**In its Q3/20 report, Kazatomprom noted that wellfield development drilling and the associated work to bring on new wellfields, began to ramp back up in August 2020, following a four-month reduction due to COVID-19 restrictions.** At this point in 2020, if wellfield development were to encounter availability, pandemic- or weather-related issues, it could impact reserve development and production plans for 2021, although it would not influence 2020 production volumes. Kazatomprom's production guidance for 2020 remains unchanged at 19,000 tU–19,500 tU on a 100% basis. The company noted that 46 positive COVID-19 cases have been identified at its Semizbai JV. However, based on the layout of the camp and separation between wellfield development and production staff, production and drilling activities are not expected to be impacted at this time.

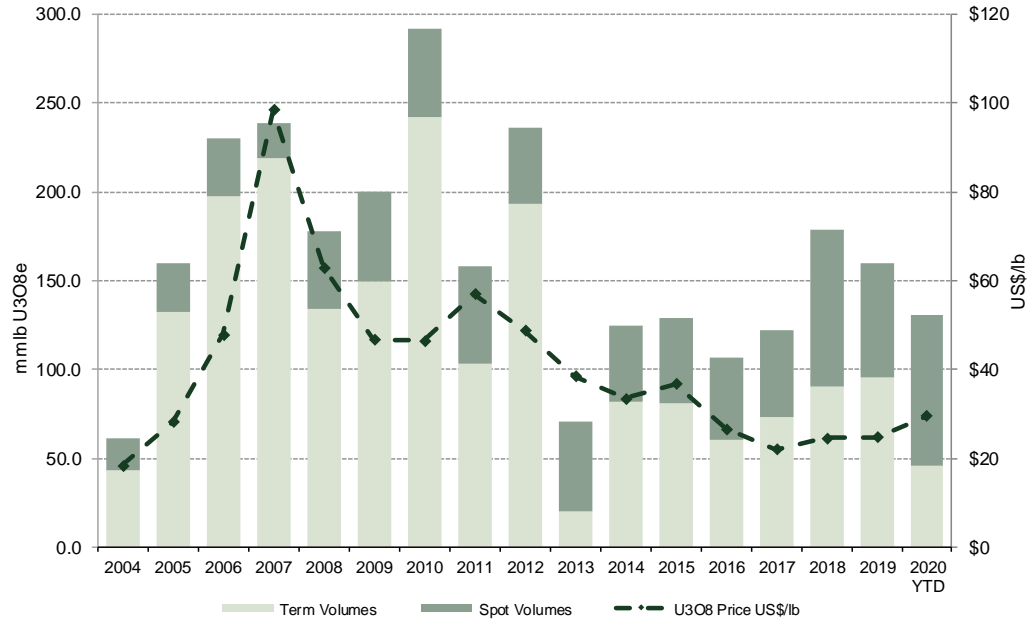
**We believe that the catalyst that could support the next up-leg in spot and term prices would be a meaningful return of utilities to the term contracting market.** Both UxC and Cameco have noted a recent pick-up in term contracting interest from both U.S. and non-U.S. utilities and we understand that off-market activity has been trending higher.

**Greg Barnes****Craig Hutchison, P. Eng**

Derick Ma, CFA, CPA, CA

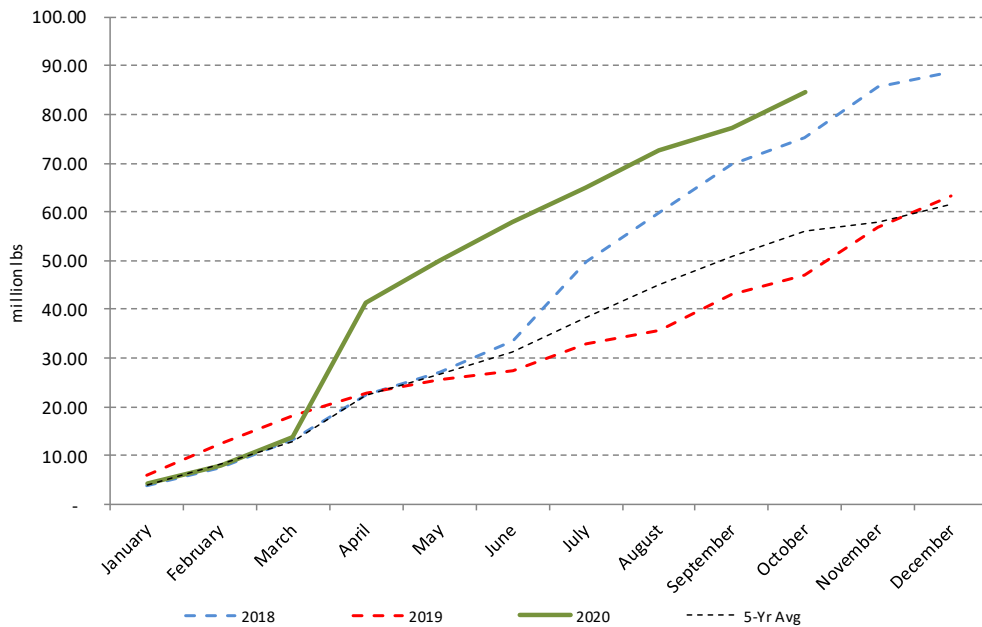
Joel Brown, P.Eng. (Associate)

**Exhibit 1. Term Contracting Volumes Lagging in 2020**



Source: UxC

**Exhibit 2. Historical vs. 2020 Cumulative Monthly Spot Volumes**



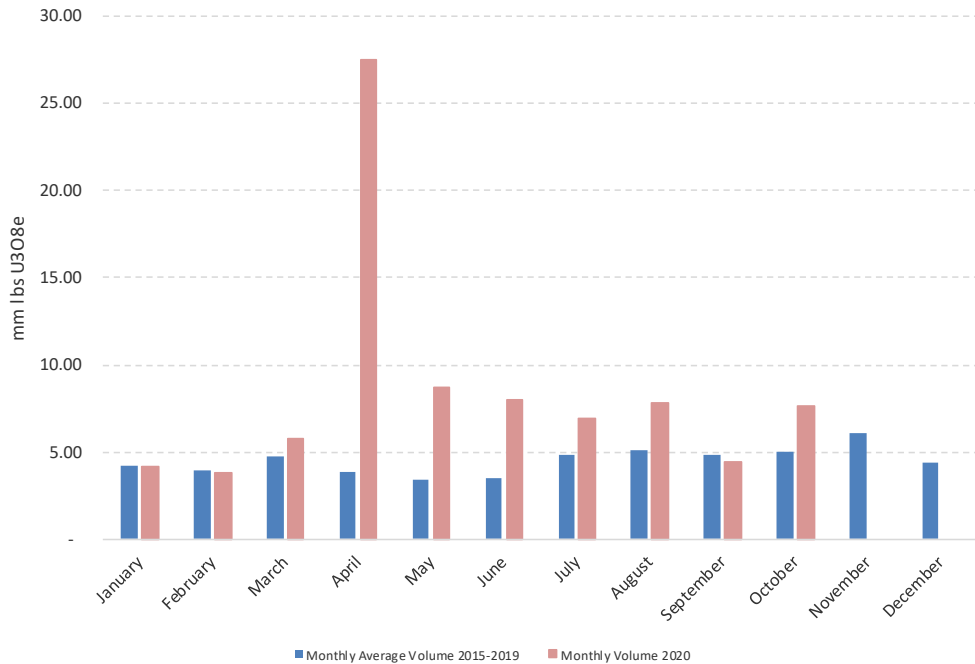
Source: UxC

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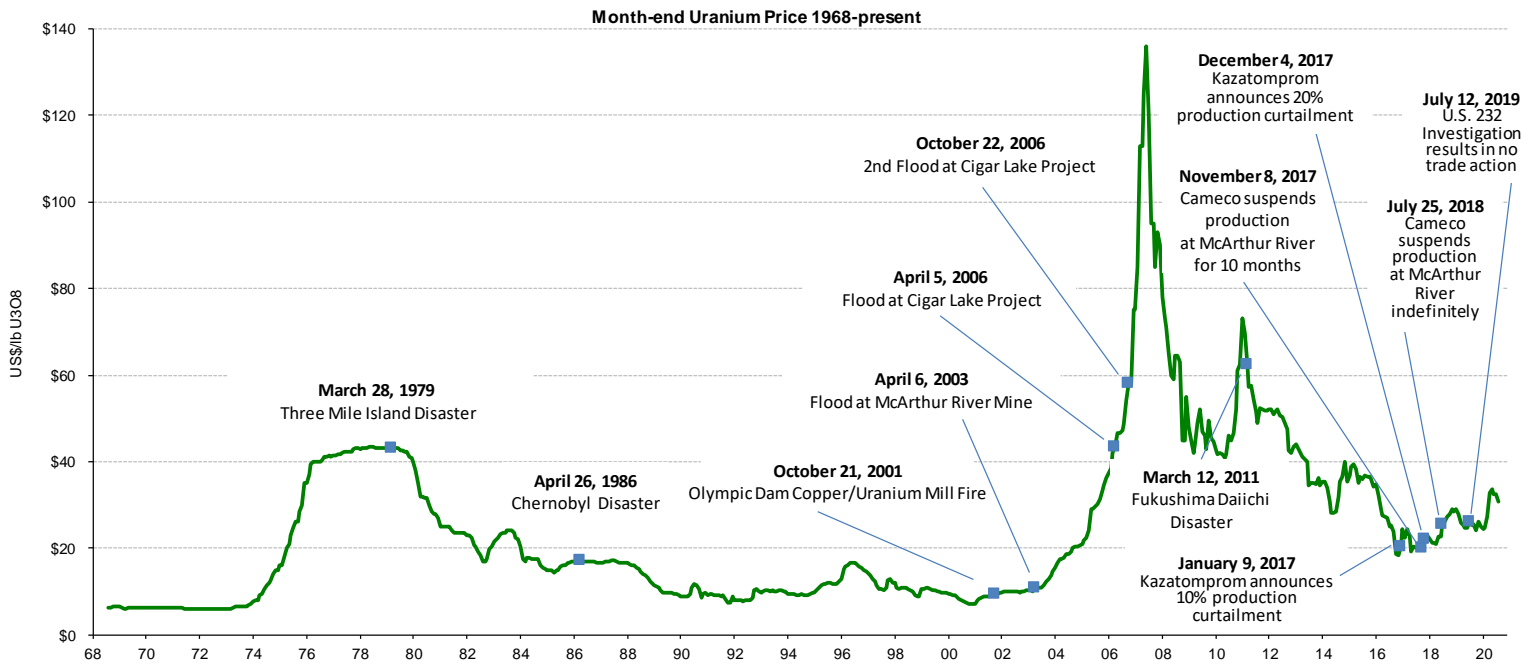
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**Exhibit 3. Monthly Average Spot Volumes**



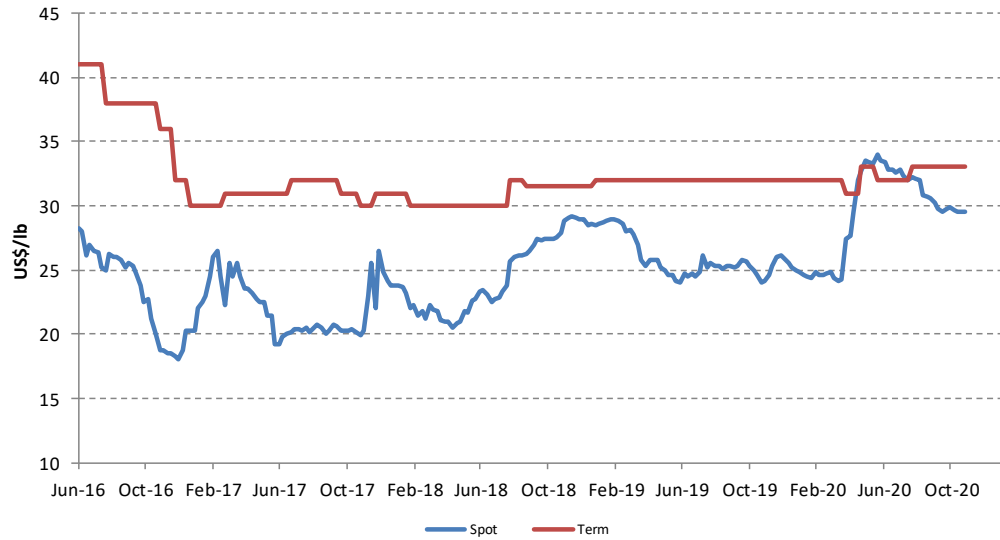
Source: UxC

**Exhibit 4. Historical Spot Price and Market Impacting Events (US\$/lb)**



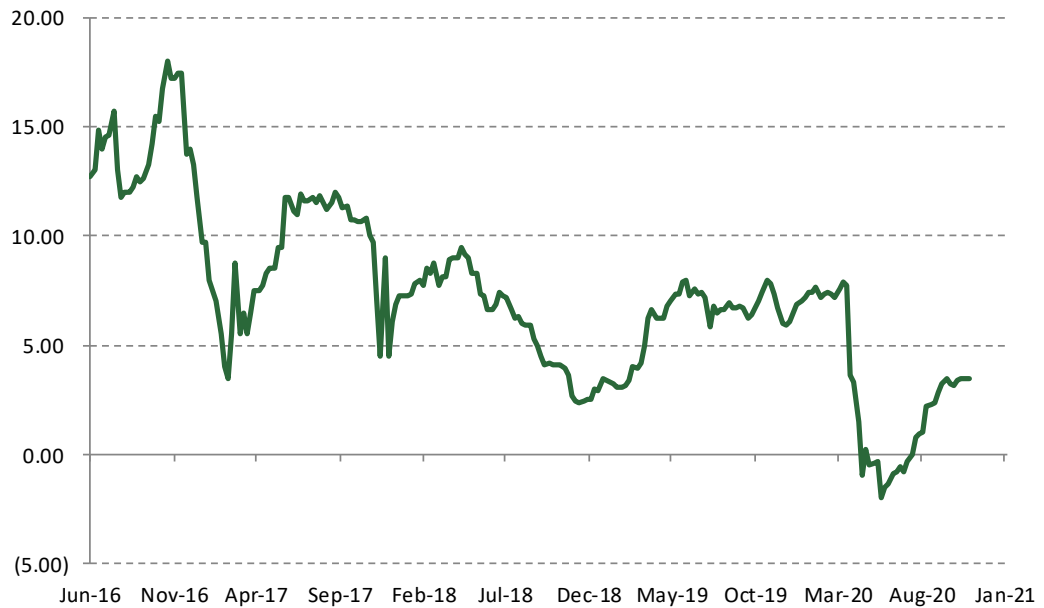
Source: UxC, Companies, TD Securities Inc.

**Exhibit 5. Spot and Term Uranium Prices (US\$/lb)**



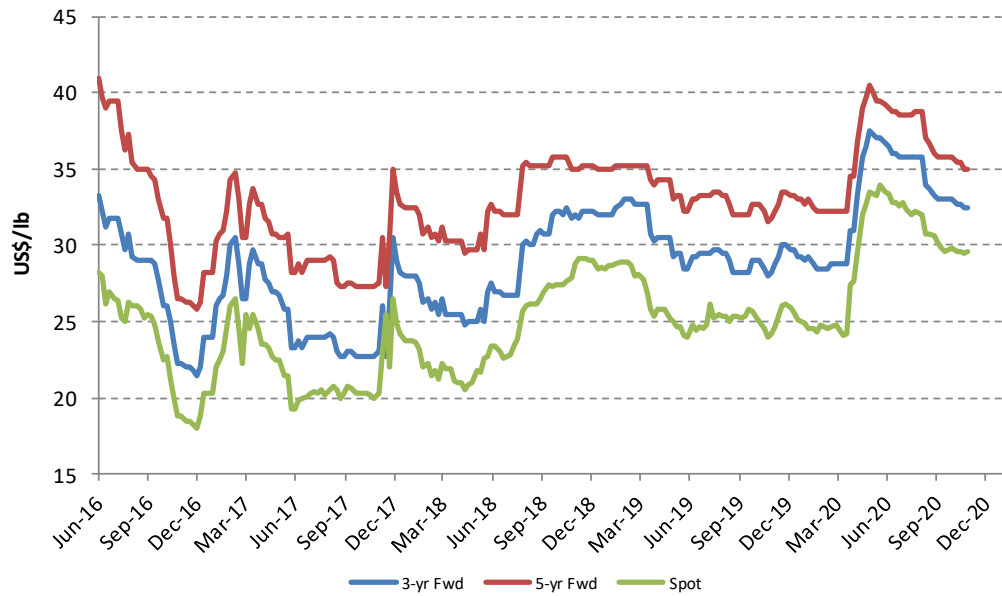
Source: UxC

**Exhibit 6. Uranium Term Price Premium to Spot (US\$/lb)**



Source: UxC

**Exhibit 7. Uranium Prices – Spot, 3yr Fwd and 5yr Fwd**



Source: UxC

**Exhibit 8. Fund Implied Price (FIP) and Spot Price**



Source: UxC

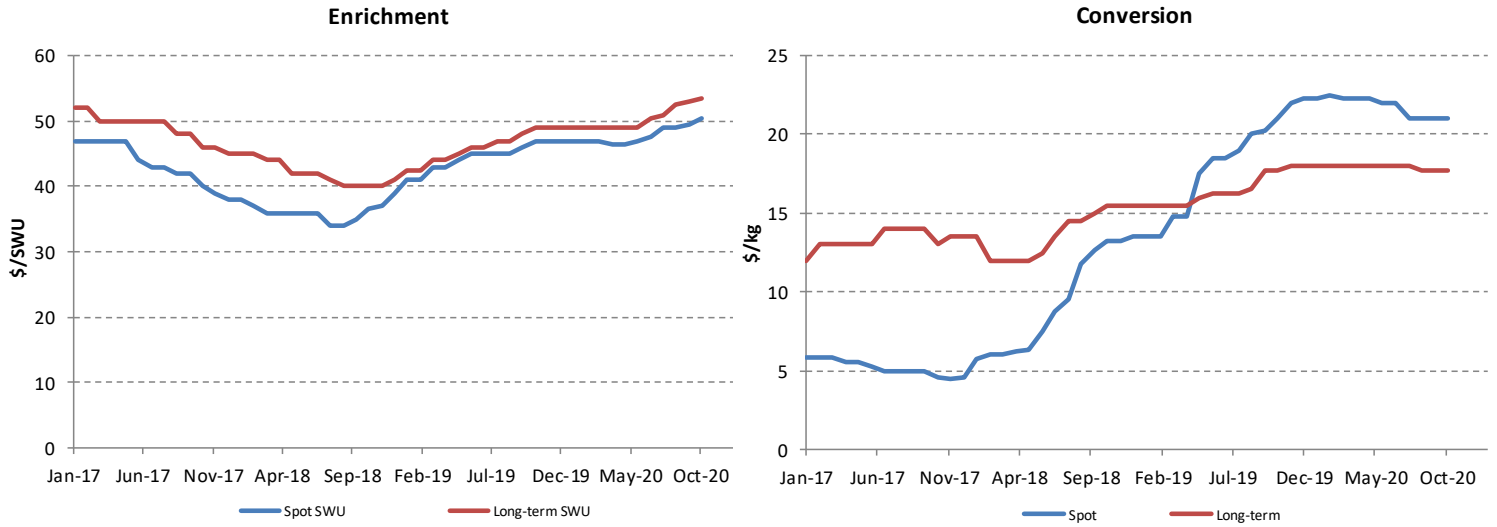


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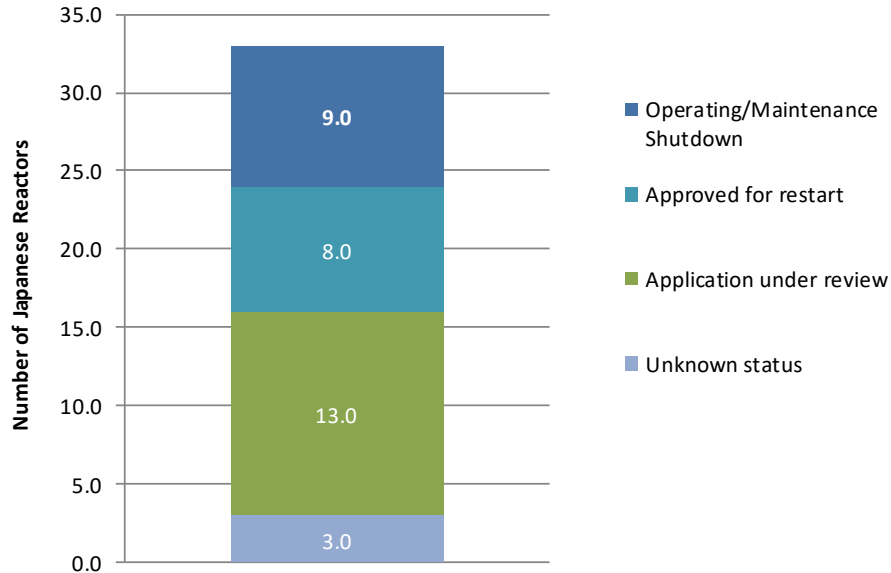
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**Exhibit 9. Monthly SWU and Conversion Pricing**



Source: UxC

**Exhibit 10. Japanese Reactor Status**



Source: UxC, Bloomberg, World Nuclear Association

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## Exhibit 11. TD Securities Uranium Supply/Demand Model

	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
<b>Mine Supply - Western World (mm lbs U3O8)</b>										
Total Mine Supply - Western World	106	104	100	83	85	75	81	80	85	88
Net Eastern Mine Supply (lbs U3O8)	57	62	54	54	55	44	49	53	60	66
<b>Total World Mine Supply (mmlb U3O8)</b>	<b>163</b>	<b>166</b>	<b>154</b>	<b>138</b>	<b>140</b>	<b>120</b>	<b>130</b>	<b>132</b>	<b>145</b>	<b>154</b>
YoY % change	12.2%	2.1%	-7.6%	-10.2%	1.7%	-14.7%	8.3%	2.2%	9.1%	6.8%
<b>Secondary Supply</b>										
Global underfeeding and tails re-enrichment*	20	18	19	18	18	16	16	15	15	14
Mixed Oxide Fuel (MOX)*	4	5	5	5	6	6	6	6	6	7
US government sales (DOE Proposed)*	7	4	3	2	2	1	0	0	0	0
Additional Russian secondary supply*	2	2	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
<b>Total Secondary Supply (mmlb)</b>	<b>34</b>	<b>29</b>	<b>27</b>	<b>24</b>	<b>26</b>	<b>24</b>	<b>22</b>	<b>21</b>	<b>21</b>	<b>21</b>
Secondary supply as % of global reactor demand	21%	17%	16%	14%	15%	13%	12%	12%	12%	11%
<b>Mobilization of Commercial Inventory</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
<b>Total Supply</b>	<b>205</b>	<b>202</b>	<b>187</b>	<b>169</b>	<b>173</b>	<b>150</b>	<b>159</b>	<b>161</b>	<b>173</b>	<b>183</b>
<b>Total World Demand</b>										
Total World Nuclear Generating Capacity (MWe) *	345,377	351,271	358,819	368,571	372,978	374,420	384,508	385,211	389,242	394,906
Uranium requirements per MWe	464	474	472	472	472	472	472	472	472	472
Uranium demand (mmlb)	160	167	169	174	176	177	181	182	184	186
First Core Requirement (2 year lead)	-	-	-	-	-	-	-	-	-	-
<b>Total World Demand (mmlbs U3O8)</b>	<b>160</b>	<b>167</b>	<b>169</b>	<b>174</b>	<b>176</b>	<b>177</b>	<b>181</b>	<b>182</b>	<b>184</b>	<b>186</b>
YoY % change	3.4%	3.9%	1.7%	2.7%	1.2%	0.4%	2.7%	0.2%	1.0%	1.5%
<b>Supply / Demand Balance (mmlb)</b>	<b>44</b>	<b>35</b>	<b>18</b>	<b>-5</b>	<b>-3</b>	<b>-26</b>	<b>-23</b>	<b>-21</b>	<b>-11</b>	<b>-4</b>
<b>Spot Uranium Price (US\$/lb U3O8)</b>	<b>\$36.89</b>	<b>\$26.57</b>	<b>\$22.12</b>	<b>\$24.82</b>	<b>\$25.94</b>	<b>\$30.86</b>	<b>\$36.00</b>	<b>\$37.50</b>	<b>\$40.00</b>	<b>\$40.00</b>

\* Source: World Nuclear Association - Nuclear Fuel Report 2019-2040 Reference Case

Note - TD LT price assumption starts in 2025; a flat US\$45/lb price is assumed for 2025 and beyond.

Source: UxC, Bloomberg, World Nuclear Association, TD Securities Inc.



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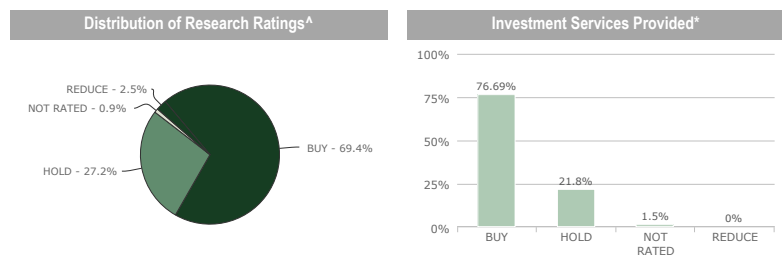
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