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**INDUSTRY | COMMENT**

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# Uranium

## Equity Rally Welcome but Need Spot Price to Sustain

### Event

- Over the past week, uranium equities have rallied 13%, bringing their share prices back in line with last fall's levels. The rally has spurred investors' interest, many of whom believe there will be yet again another bull rally in the uranium market. **While we too think there will be a bull market in the future; it is likely that this rally is somewhat premature and that recent gains may be pared back if the uranium spot price does not back up the equity gains.**

- This past week, Denison Mines, Energy Resources Australia (ERA), Paladin Energy, and Uranium One each reported good production results for the quarter ended December 31, 2011. **There are also some positive developments that point to a better uranium market outlook over the long-term** including:
  - China planning to resume approvals of new nuclear power plants and looking to be back on its path to increased uranium demand;
  - The Highly Enriched Uranium (HEU) agreement between the US and Russia coming to an end in November 2013 and removing approximately 24 million pounds of $U_3O_8$e supply per year;
  - The low uranium price environment which we believe has served to delay new production outside of Kazakhstan. We estimate the uranium market balance will go into substantial deficit in 2014 and beyond.

- **Balancing our bullish outlook, there are non-mine concerns that may cause negative volatility**:
  - In Japan, excess inventories as a result of lower uranium requirements post-Fukushima and potentially unnecessary contracted material in the future may negatively impact the uranium spot price;
  - The US government continues to debate the fate of its uranium inventory and there is the potential for increased uranium sales from the US government or USEC.

- **In our view, the spot market will remain range-bound between $50/lb and $55/lb until late-2012 to early-2013 when the market begins to take into account the loss of 24 million pounds from the US-Russian HEU accord in late-2013.**

Exhibit 1: RBCCM Uranium Price Forecast ($/lb $U_3O_8$)

| 2010A | 2011A | 2012E | 2013E | 2014E | 2015-2020E | Long-term |
|---|---|---|---|---|---|---|
| $46.46 | $57.01 | $55.00 | $60.00 | $75.00 | $80.00 | $55.00 |

Source: Ux Consulting Company, RBC Capital Market estimates

Priced as of prior trading day's market close, EST (unless otherwise noted).
All values in USD unless otherwise noted.

For Required Non-U.S. Analyst and Conflicts Disclosures, see page 5.

Uranium equity prices have risen significantly over the past week. The average increase in our coverage universe between January 12, 2012 and January 19, 2012 was 13%. We are not aware of sector specific news that is likely the sole factor that drove the rally. **We believe the rally was started by positive production news from several producers (see below) and that many investors have been waiting on the sidelines for a uranium market to show positive momentum. In our view, this uptick may be short-lived and partially reversed unless the uranium spot price improves markedly.**

## Good News From Producers Sparked Rally

This past week, Denison Mines, Energy Resources Australia (ERA), Paladin Energy, and Uranium One each reported good production results for the quarter ended December 31, 2011:

**Denison Mines** – Q4/11 production results were in line with our expectations, but more importantly, 2012 production guidance was 40% higher than 2011 production. Please see our note titled "2012 Guidance Higher than Expected. Exploration Spending Continues to Climb" published on January 16, 2012.

**ERA** – Production results were above our estimates and the market reacted positively, although ERA reported that record rainfall in December which may impact production in 2012. Please see our note titled "It's Raining Again. 2012 Production May Decrease" published on January 12, 2012,

**Paladin** – Production was generally in line with our estimates, indicating that mine operations – particularly at Kayelekera – may be stabilizing. The company also noted that the Bankers' Completion test has started and is expected to be passed. Please see our note titled "Solid Quarterly Operations Results Should Improve Sentiment" published on January 16, 2012;

**Uranium One** – Q4 production results were strong and ahead of our estimates. The positive Q4/11 production results alleviate some of our concern regarding production issues that were encountered in Q3/11. Please see our note titled "Strong Q4 Production: 20% Better than Expected" published on January 16, 2012.

**Exhibit 2: Uranium stocks in our coverage universe were up an average of 13% over the past week**

| Names | Ticker | Price 19-Jan-12 | 1 week % change | Price 12-Jan-12 | 52-week High | 52-week Low |
|---|---|---|---|---|---|---|
| **Producers** | | | | | | |
| Cameco | CCO-T | C$23.23 | 12.4% | C$20.67 | C$44.28 | C$17.25 |
| Denison Mines | DML-T | C$1.90 | 16.6% | C$1.63 | C$4.44 | C$0.87 |
| Energy Resources Australia | ERA-AU | A$1.44 | 14.7% | A$1.26 | A$8.27 | A$1.14 |
| Paladin Energy | PDN-AU | A$1.80 | 22.1% | A$1.47 | A$5.61 | A$1.11 |
| Uranium Energy Corp. | UEC-A | $3.80 | 16.2% | $3.27 | $7.08 | $2.20 |
| Uranium Participation Corp. | U-T | C$6.18 | 3.5% | C$5.97 | C$9.50 | C$5.00 |
| Uranium One | UUU-T | C$2.85 | 14.9% | C$2.48 | C$7.02 | C$1.85 |
| **Producers Average** | | | **14.3%** | | | |
| **Non-Producers** | | | | | | |
| Berkeley Resources | BKY-AU | A$0.38 | 4.1% | A$0.37 | A$1.86 | A$0.31 |
| Extract Resources | EXT-AU | A$8.54 | -0.1% | A$8.55 | A$10.80 | A$5.90 |
| Ur-Energy | URE-T | C$1.09 | 14.7% | C$0.95 | C$3.35 | C$0.79 |
| **Producers Average*** | | | **9.4%** | | | |
| **Overall Average*** | | | **13.3%** | | | |

Source: Thomson Reuters, RBC Capital Markets.

*Excludes Extract Resources due to expected buyout from CGNPC

**Exhibit 3: Uranium coverage universe comparison table**

| Producers | Price 19-Jan-12 | P/NAV | EPS 2012E | EPS 2013E | EPS 2014E | CFPS 2012E | CFPS 2013E | CFPS 2014E | EBITDA 2012E | EBITDA 2013E | EBITDA 2014E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cameco | C$23.23 | 0.9x | C$1.32 | C$2.01 | C$1.53 | C$1.97 | C$2.73 | C$2.27 | C$889.0 | C$1,232.6 | C$1,047.5 |
| Denison Mines | C$1.90 | 1.0x | -$0.08 | -$0.06 | -$0.01 | -$0.01 | $0.01 | $0.06 | -$7.68 | -$10.78 | $21.13 |
| Energy Resources Australia | A$1.44 | 0.8x | A$0.19 | A$0.10 | A$0.11 | A$0.36 | A$0.26 | A$0.24 | A$208.3 | A$144.9 | A$137.1 |
| Paladin Energy | A$1.80 | 0.8x | $0.00 | $0.06 | $0.13 | $0.06 | $0.16 | $0.23 | -$77.64 | $181.23 | $234.03 |
| Uranium Energy Corp. | US$3.80 | 1.4x | $0.10 | $0.21 | $0.34 | $0.18 | $0.28 | $0.42 | $17.01 | $30.17 | $46.90 |
| Uranium One | C$2.85 | 0.7x | $0.15 | $0.30 | $0.47 | $0.28 | $0.43 | $0.62 | $347.60 | $509.93 | $754.17 |

| | P/E 2012E | P/E 2013E | P/E 2014E | P/CFPS 2012E | P/CFPS 2013E | P/CFPS 2014E | EV/EBITDA 2012E | EV/EBITDA 2013E | EV/EBITDA 2014E |
|---|---|---|---|---|---|---|---|---|---|
| Cameco | 17.5x | 11.6x | 15.2x | 11.8x | 8.5x | 10.2x | 10.3x | 7.5x | 8.8x |
| Denison Mines | nm | nm | nm | nm | nm | nm | nm | nm | nm |
| Energy Resources Australia | 7.7x | 14.3x | 13.4x | 4.0x | 5.6x | 6.0x | 1.3x | 2.7x | 3.4x |
| Paladin Energy | nm | 26.6x | 12.8x | 31.3x | 10.9x | 7.8x | nm | 10.3x | 7.7x |
| Uranium Energy Corp. | 36.5x | 18.0x | 11.0x | 21.6x | 13.5x | 9.0x | 16.4x | 9.3x | 6.0x |
| Uranium One | 18.0x | 9.2x | 5.9x | 9.8x | 6.5x | 4.4x | 7.4x | 4.6x | 2.7x |
| **Average*** | **19.9x** | **15.9x** | **11.7x** | **15.7x** | **9.0x** | **7.5x** | **8.9x** | **6.9x** | **5.7x** |

Source: Thomson Reuters, RBC Capital Markets

## Recent News Points to Positive Long-Term Fundamentals

There are also some positive developments that point to a better uranium market outlook over the long-term.

### China to Resume Reactor Construction

On January 18, 2012, the China Securities Journal reported that China plans to resume approving new nuclear power plants. We believe that China may approve a relatively large number soon after the process commences (between 5 to 10) and this is an encouraging sign that China is back on its path to increased uranium demand.

### HEU Coming to an End

We also believe that the Megatons to Megawatts Highly Enriched Uranium (HEU) treaty between the US and Russia will end in November 2013 and remove approximately 24Mlbs of $U_3O_8$e per year. In our view, the market is unprepared for the elimination of the HEU supply as a result of the low price environment limiting supply development.

### New Supplies Not Coming as Planned

The uranium market has been depressed since mid-2007 except for the brief run-up before the Fukushima disaster. In our opinion, the low uranium price – coupled with delays due to permitting and M&A – has served to delay new production outside of Kazakhstan. Therefore, we estimate the uranium market balance will go into substantial deficit in 2014 and beyond.

## Non-Mine Supply Concerns may Cause Negative Volatility

Balancing our bullish outlook, there are concerns regarding excess **Japanese utility inventories** as a result of lower requirements post-Fukushima and potentially unnecessary contracted material in the future. There is uncertainty regarding how the excess material will be placed onto the market and this potential excess supply could negatively impact the uranium spot price in the future. Also, there continues to be the potential for increased **uranium sales from the US government or USEC** as the government continues to debate the fate of its uranium inventory.

## Near-Term Spot Market Likely Range-Bound

**We think that the spot market will begin to price in the end of the HEU accord well before it happens – perhaps as early as the end of 2012. We believe the spot price will be range-bound for most of 2012 between $50 and $55 per pound.**

Exhibit 4: RBCCM Price Forecast ($/lb $U_3O_8$)

| 2007A | 2008A | 2009A | 2010A | 2011E | 2012E | 2013E | 2014E | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E | Long-term |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $98.68 | $63.03 | $46.66 | $46.46 | $57.01 | $55.00 | $60.00 | $75.00 | $80.00 | $80.00 | $80.00 | $80.00 | $80.00 | $80.00 | $55.00 |
| | | | | YTD Average Spot Price | $52.17 | | | | | | | | | |

Source: The Ux Consulting Company, LLC, RBC Capital Markets estimates

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