# MZConsulting Mid-Year Message 2017

***2017 started with more uncertainty for nuclear power. While efforts to save operating units in the USA are seeing some success, Westinghouse filed for Chapter 11 resulting in the cancelation of at least one of the new build projects. In a major blow to the industry, the new President of Korea stated his policy is to end the use of nuclear power by cancelling new units and removing the existing units from service as they reach their end of life.***

*The spot price of uranium appears to have stabilized, remaining in the $20/lb range with the long-term price sitting between $30 and $35/lb. With countries like Switzerland, Belgium and now Korea looking to exit nuclear in the medium term, prices are likely to stay soft in the short to medium term until long term demand is further clarified. Without short term demand improvements, only supply discipline by the major producers can positively impact the price.*

| Company | Price CDN$ June 30/17 | YTD (%) June 30/17 | 1yr (%) 2016 | 1yr (%) 2015 | 1yr (%) 2014 | 1yr (%) 2013 |
|---|---|---|---|---|---|---|
| Cameco CCO-T | **11.81** | **-15.9** | -17.8 | -10.4 | -13.6 | +12.5 |
| Denison DML-T | **0.555** | **-20.7** | 0 | -38.1 | -12.4 | -2.3 |
| Forsys FYS-T | **0.13** | **+18.2** | +37.5 | -52.9 | -59.5 | -47.5 |
| Mega MGA-T | **0.195** | **+39.3** | +100 | -44.0 | +38.9 | -25 |
| Toro TOE-AX | **0.028** | **-31.7** | -37.9 | -17.5 | +9.4 | -40.8 |
| Paladin PDN-T | **0.045*** | **-47** | -66 | -25.4 | -24.7 | -59.5 |
| Energy Fuels EFRT | **2.05** | **-7.2** | -46 | -32.7 | | |
| Ur Part U-T | **3.90** | **+2.6** | +2.6 | -0.40 | -8.8 | +4.6 |
| UEX UEX-T | **0.19** | **-22.5** | -22.5 | -47.4 | -27.8 | -33 |
| Ur Energy URE-T | **0.83** | **+16.9** | -20.2 | -10.1 | -31.3 | +73.5 |
| Fission FCU-T | **0.61** | **-4.7** | -22 | -4.7 | -19.6 | |

**June 12, 2017*

### *Sustained low prices leaves uranium producers with few options*

It's another sea of red ink in the first half of the year as producers try and cope with prices that are stabilizing at values that are too low to make most production profitable. That is symptomatic of a current supply-and-demand imbalance. This has finally taken its toll on Paladin Energy as it entered administration. It will be delisted from Toronto on August 10 and it is expected that its Langer Heinrich mine will be fully taken over by CNNC.

2016 global uranium production grew by 2.5% as all three of the largest uranium producing countries, Kazakhstan (39%), Canada (22%) and Australia (10%), increased their production. In Canada, Cigar Lake approached McArthur River production levels as it became the world's second largest producing mine. Kazatomprom continues to be the world's largest producer closely followed by Cameco. Given the continued low price of uranium, production cuts by these two giants are expected for 2017.

### *Crisis creates clarity in the role of nuclear power*

Significant effort to fight early closure for uneconomic plants in the deregulated parts of the US have been seeing some success with court cases in New York supporting the decision to keep plants operating and other states looking to do the same.

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However, the financial problems of Westinghouse as it entered Chapter 11 bankruptcy protection have led to a review of the four units under construction with the South Carolina utilities now deciding to stop construction of the V.C. Summer project. And while the new Trump administration is supportive of nuclear power, their decision to pull the US out of the Paris climate change agreement may be undermining the ability to save nuclear plants on the basis of their low carbon characteristics.

On the SMR front Nuscale continues to make progress with its licensing effort as it leads the pack in the USA. In Canada, Chalk River Nuclear Laboratory (CNL) has issued a Request for Information (ROI) as it shows interest in hosting a demonstration SMR plant.

In Switzerland, a new referendum to close their nuclear plants at their end of life has succeeded and the construction of Hinkley Point C in Britain is off to a slow start. In the UK there is also a discussion going on with respect to their continued participation in Euratom following BREXIT. The UAE continues to show how new build nuclear can be a success as their units are ready for fuel, but there is some delay in securing their operating licenses that is impacting their commercial operation dates.

Japan now has 5 units back in operation as it moves slowly towards bringing back further units as they are upgraded to meet new post Fukushima safety standards.

Germany remains committed to removing nuclear from its mix even as its Energiewende is failing. As the share of renewables in the mix is increasing as are electricity prices, there has been no improvement in carbon emissions.

The industry continues to suffer from the effects of the accident at the Fukushima plant in Japan in 2011. Most recently, it is Korea that says it will eliminate nuclear from its mix over the coming years. With Korea relying for 70% of its generation on both coal and nuclear; and, given its lack of indigenous resources and interconnections to other countries, this is an impossible task. While many expect this position to change as it becomes painfully obvious that Korea needs its nuclear fleet to remain an industrial powerhouse, the damage is now done. There is no greater example than Korea of how a country can both benefit from nuclear power and excel at its implementation. This shows that fear remains a dominant factor that can outweigh a range of strong benefits when considering options for the future.

***Focus on managing cost***

With so much uncertainty the big uranium companies are focusing their attention on improving efficiency.

Cameco has focused on cost reduction, reducing their cash costs by 23% and their capital investments by 20%. Of more importance, they are managing the market stating in their quarterly report that they have reduced supply, avoided selling into a weak spot market and resisted locking-in long-term commitments at today's low prices.

Meanwhile, as Kazatomprom celebrates its 20 anniversary; and having grown to the largest uranium producer in the world, its transformation program to gain efficiencies and modernize its processes continues.

***Nuclear sector growth***

In spite of all this apparent gloom and doom, the nuclear industry continues to grow. 3 new units are nearing completion in China and the first two units in the UAE are also almost ready to load fuel. Critical to the industry, the first new Generation III reactors are nearing completion as China expects to put its first AP1000 into service this year and its EPR sometime next year. As it becomes apparent that the world cannot run on renewable energy alone, there will be further opportunity for nuclear growth to meet the needs of an energy hungry world.

***About MZConsulting***

MZConsulting advises governments, utilities and others interested in new build nuclear and investment in uranium companies.