

**“The outlook for non-U.S. world uranium production  
from the perspective of 40 years of analyses and site visits”**

By

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Projected rising uranium demand and increasing market prices are anticipated to justify increased uranium production over the next five years. This presentation focuses on existing and proposed primary non-U.S. uranium producers underlying the cost competitive production environment faced by current and future U.S. producers. In 2016 the *World Nuclear Association* reports 98.2 % of total world uranium production of 62 012 tU (161.2 million lbs U<sub>3</sub>O<sub>8</sub>) came from non-U.S. projects. The production met 98% of annual world uranium demand, the highest level of coverage of reactor demand in nearly 30 years (since 1989). Over 62% of production came from Kazakhstan (24 575 tU; 39.6%) and Canada (14 039 tU; 22.6%). The next five countries: Australia, Niger, Namibia, Russia and Uzbekistan produced an additional 30% of the total. Seven countries produced 92% of the world total. The top five producing countries host proposed new uranium projects that could contribute additional production, some in significant amounts. More than six years have passed since the 11 March 2011 nuclear accident at TEPCO’s Fukushima Daiichi nuclear power station that led to the immediate shutdown of all of Japan’s nuclear plants, cutting annual uranium demand by 10%. Both reduced uranium demand and an oversupplied market led to falling, depressed uranium market prices, forcing production cutbacks and project curtailments. However, the annual production output actually increased by 16%, (over 8 500 tU or 22.1 million lbs U<sub>3</sub>O<sub>8</sub>) during the 2011-2016 period. The increase came primarily from Kazakhstan, with a lesser amount from Canada. The six year period since Fukushima provided sufficient time for the uranium production landscape to evolve with a focus on lower cost production. While uranium exploration and project development was much suppressed during the six year period a few significant new discoveries were made, for example *Fission’s* Patterson Lake South and *Nexgen’s* Arrow deposits in Saskatchewan. Ongoing development are also taking place at a few new production centers. In addition, supply and demand considerations motivated China and Russia, both with centrally planned, vertically integrated government nuclear programs, to increase their ownership of uranium production projects. The presentation reviews the existing, as well as primary developing, or proposed non-U.S. projects that will likely be added to meet production to fill the projected supply gap. It focuses on the major projects and producers, as well as some of the surrounding factors that are projected to have major market impacts.

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