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The Advanced Fuel CANDU Reactor™ and its Contribution to a Sustainable Fuel Cycle

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The CANDU reactor is the most efficient technology for utilizing advanced fuel cycles due to its inherent characteristics and allows countries to gain resource independence and produce energy from otherwise waste products. In order to take advantage of these characteristics, SNC-Lavalin has been working internationally to help countries disposition their nuclear material inventories. In China, SNC-Lavalin is working jointly with China National Nuclear Corporations to develop the Advanced Fuel CANDU Reactor™ (AFCR). The AFCR is a Generation III, 740 MWe Class heavy water reactor designed to utilize recycled uranium fuel and China's extensive thorium reserves in the longer term. This technology is well positioned to play a complementary role in China's closed fuel cycle program by generating additional power from reprocessed light water reactor spent fuel. When implemented it will help China to achieve its long term goals of closing its nuclear fuel cycle, increasing energy independence and reducing carbon emissions through widespread deployment of nuclear.