Energy Fuels Enters into Agreement to Acquire Prompt Fission Neutron (PFN) Borehole Logging Technology and Equipment; Securing Control over this Critical Technology for U.S. ISR Uranium Production

written by Raj Shah | May 6, 2020

May 6, 2020 (Source) – **Energy Fuels Inc. (NYSE American: UUUU;TSX: EFR) ("Energy Fuels")**, the leading producer of uranium in the United States, is pleased to announce that it has entered into an agreement to acquire from GeoInstruments Logging LLC ("GIL") all of its Prompt Fission Neutron ("PFN") technology and equipment, including all of its related intellectual property, which will give Energy Fuels the exclusive right to use, license, and service this particular PFN technology globally. PFN is critical to successfull uranium production particularly from many *in situ* recovery ("ISR") deposits, as it more accurately measures downhole in-situ U_3O_8 ore grade versus traditional Total Gamma and Spectral Gamma methods.

The PFN equipment and technology to be acquired by Energy Fuels includes: four (4) PFN tools; nine (9) gamma tools with point

resistivity, spontaneous potential and deviation; two (2) low-mileage, heavy-duty logging trucks with logging and associated equipment; power supplies, computers, communication, and other technology; and all associated intellectual property, including all internal details of the tools, circuit board diagrams, firmware code, software, manuals, instructions, patents and the sole right to utilize and license the acquired PFN technology globally. The total consideration to be paid by Energy Fuels to GIL will be US$500,000.00 cash. Closing of the transaction is expected to occur within approximately two weeks, after completion of a due diligence inspection of the equipment.

Energy Fuels currently has some PFN equipment in various states of repair, which it has used for its mining operations in the past, as do other companies in the U.S. and around the world. With the acquisition of this additional PFN equipment and technology from GIL, Energy Fuels will, not only be able to utilize the additional equipment to ramp-up production from its ISR properties more quickly and efficiently in the event of improved market conditions, it will also secure the ability to service, repair and maintain PFN equipment currently held by the Company and others, as well as license this technology to others in the future.

“Energy Fuels’ acquisition of this PFN equipment and technology will further solidify Energy Fuels’ position as the leading uranium miner in the United States, especially in the ISR space” stated Mark S. Chalmers, President and CEO of the Company. “We believe that acquiring PFN technology is now more important than ever, as we believe a revival of the U.S. uranium industry is imminent. On April 23, 2020, the U.S. Nuclear Fuel Working Group (NFWG) conclusively described why the U.S. needs healthy uranium and nuclear fuel industries in order to secure U.S. energy and national security and prevent Russia, China and other geopolitical rivals from gaining control of global – and U.S. –

nuclear markets. We believe the NFWG report represents the strongest U.S. government commitment to supporting U.S. uranium miners in decades. The NFWG report also provides a menu of actions the U.S. government can take to support domestic uranium mining, including creating a U.S. uranium reserve, and potentially increasing the size of the American Assured Fuel Supply. We believe the NFWG report is an emphatic call for the U.S. government to take whatever actions are necessary to bring back U.S. uranium and nuclear fuel production. In response to the NFWG Report recommendations, President Trump has already announced a budget that seeks $150 million per year over the next 10 years (totaling $1.5 billion over that timeframe) to establish a strategic uranium reserve intended "to provide additional assurances of availability of uranium in the event of a market disruption." ("A Budget for America's Future", Page 46; "Table 25-1. Federal Budget by Agency and Account, FY-2021 President's Budget Policy", Page 127).

"We believe PFN technology is critical, as the technology provides significant advantages to miners that operate primarily ISR uranium projects, many of which are in a state of radioactive disequilibrium. PFN is able to more accurately detect and define uranium content and location versus traditional downhole gamma measurements. In fact without PFN, a uranium miner may miss large areas of high-grade uranium resources within a deposit. As a result, PFN can provide a uranium miner with the opportunity to gain a significant advantage by reducing uranium production, drilling, exploration, analytical costs and time."

Why PFN Is Important

PFN technologies have played an important part in discovering, and bringing to production, some of the best uranium deposits in the world, including the low-cost Beverly and Four Mile uranium

mines currently operating in South Australia. Energy Fuels' Alta Mesa ISR Project in South Texas, which produced nearly 5 million pounds of U_3O_8 between 2005 and 2012, also deployed PFN technology while in production.

Many geologically younger ISR uranium deposits in the U.S., and particularly in Texas, have a certain degree of disequilibrium, whereby the radioactivity measured in drill holes using traditional Total Gamma and Spectral Gamma methods does not accurately correspond to ore grade, due to the continued decay of uranium daughter products including potassium, thorium, lead and bismuth relative to radium (Ra^{226}), a significant gamma emmiter. Traditionally, disequilibrium is calculated using mud rotary coring techniques and laboratory gamma and alpha spectometry. All of which are expensive and time consuming. Without accurate in-situ measurement of uranium, significant high-grade ore has been missed using the traditional downhole techniques. PFN technology solves this issue by instead using neutron activation to detect uranium in drill holes. The PFN tool creates very fast neutrons (14MeV) and fires 10^8 neutrons per second. Therefore, the neutrons emitted by the PFN tool excite, at an atomic level, in-situ uranium atoms in the drill hole, creating fast (epithermal) neutrons and slow (thermal) neutrons. The ratio of epithermal to thermal neutrons is proportional to uranium, allowing the U_3O_8 ore grade to be accurately calculated. This provides a relatively inexpensive and instantaneous means for accurate assaying in-situ ore grades over large areas, and allows for accurate ore body mapping, resource estimation, and wellfield planning.

***About Energy Fuels**: Energy Fuels is a leading US-based uranium mining company, supplying U_3O_8 to major nuclear utilities. The Company also produces vanadium from certain of its projects, as market conditions warrant. Its corporate offices are*

near Denver, Colorado, and all of its assets and employees are in the United States. Energy Fuels holds three of America's key uranium production centers, the White Mesa Mill in Utah, the Nichols Ranch in-situ recovery ("ISR") Project in Wyoming, and the Alta Mesa ISR Project in Texas. The White Mesa Mill is the only conventional uranium mill operating in the U.S. today, has a licensed capacity of over 8 million pounds of U_3O_8 per year, and has the ability to produce vanadium when market conditions warrant. The Nichols Ranch ISR Project is in operation and has a licensed capacity of 2 million pounds of U_3O_8 per year. The Alta Mesa ISR Project is currently on standby. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the U.S., and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development. The primary trading market for Energy Fuels' common shares is the NYSE American under the trading symbol "UUUU", and the Company's common shares are also listed on the Toronto Stock Exchange under the trading symbol "EFR." Energy Fuels' website is www.energyfuels.com.

Cautionary Notes: *This news release contains certain "Forward Looking Information" and "Forward Looking Statements" within the meaning of applicable United States and Canadian securities legislation, which may include, but is not limited to, statements with respect to: any expectation that this transaction will close and the timing of any such closing; any expectation that the Company will be able to utilize the additional equipment to ramp-up production from its ISR properties more quickly and efficiently in the event of improved market conditions; any expectation that the completion of this transaction will secure the Company's ability to to service, repair and maintain PFN equipment currently held by the Company and others, as well as license this technology to others in the*

future; any expectation that PFN is critical to successfull uranium production particularly from many ISR deposits; any expectation that a revival of the U.S. uranium industry is imminent; any expectation that the NFWG report is an emphatic call for the U.S. government to take whatever actions are necessary to bring back U.S. uranium and nuclear fuel production; any expectation that the NFWG's recommendations will revive and expand the production of U.S. nuclear fuel, including uranium mining; any expectation that the Company will be a beneficiary of U.S. government actions to support U.S. uranium miners; any expectation as to how the President's fiscal 2021 budget will be implemented and the timing of implementation; any expectation that Congress will make the requested appropriations; and any expectation with respect to the Company's ability to maintain its leading position as a producer. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans," "expects," "does not expect," "is expected," "is likely," "budgets," "scheduled," "estimates," "forecasts," "intends," "anticipates," "does not anticipate," or "believes," or variations of such words and phrases, or state that certain actions, events or results "may," "could," "would," "might" or "will be taken," "occur," "be achieved" or "have the potential to." All statements, other than statements of historical fact, herein are considered to be forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements express or implied by the forward-looking statements. Factors that could cause actual results to differ materially from those anticipated in these forward-looking statements include risks associated with: any expectation that this transaction will close and the timing of any such closing;

any expectation that the Company will be able to utilize the additional equipment to ramp-up production from its ISR properties more quickly and efficiently in the event of improved market conditions; any expectation that the completion of this transaction will secure the Company's ability to service, repair and maintain PFN equipment currently held by the Company and others, as well as license this technology to others in the future; any expectation that PFN is critical to successfull uranium production particularly from many ISR deposits; any expectation that a revival of the U.S. uranium industry is imminent; any expectation that the NFWG report is an emphatic call for the U.S. government to take whatever actions are necessary to bring back U.S. uranium and nuclear fuel production; any expectation that the NFWG's recommendations will revive and expand the production of U.S. nuclear fuel, including uranium mining; any expectation that the Company will be a beneficiary of U.S. government actions to support U.S. uranium miners; any expectation as to how the President's fiscal 2021 budget will be implemented and the timing of implementation; any expectation that Congress will make the requested appropriations; any expectation with respect to the Company's ability to maintain its leading position as a producer; and the other factors described under the caption "Risk Factors" in the Company's most recently filed Annual Report on Form 10-K, which is available for review on EDGAR at www.sec.gov/edgar.shtml, on SEDAR at www.sedar.com, and on the Company's website at www.energyfuels.com. Forward-looking statements contained herein are made as of the date of this news release, and the Company disclaims, other than as required by law, any obligation to update any forward-looking statements whether as a result of new information, results, future events, circumstances, or if management's estimates or opinions should change, or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could

differ materially from those anticipated in such statements. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements. The Company assumes no obligation to update the information in this communication, except as otherwise required by law.

It should further be noted that the U.S. President's proposed budgeted activities are subject to appropriation by the Congress of the United States, and there can be no certainty of the outcome of his proposed budget activities or the NFWG's recommendations. Therefore, the outcome of this process remains uncertain.