

Energy Fuels uranium inventory ready to feed US reserve program

Well positioned to supply US uranium reserves

While uranium spot prices have improved in 2020 – now at US\$30.75 – they are still currently well below previous uranium contract prices. Vanadium prices are also still struggling at US\$7.10 for V205 and US\$30.30 for ferrovanadium (both China prices). This means uranium and vanadium companies with either long-term uranium contracts or strong balance sheets can bide their time until we get a price recovery for both uranium and vanadium. The U.S. government is shortly expected to appropriate the funds for the US\$150 million U.S. uranium reserve program. Once this happens, the expectation is that the U.S. government will be looking to buy uranium from U.S. producers above the current low market uranium spot prices. Because the creation of the uranium reserve has bipartisan support, it should continue regardless of the outcome of the 2020 U.S. election.

Energy Fuels Inc. (NYSE: UUUU | TSX: EFR) is currently one of those lucky few U.S. companies that can bide their time and maintain balance sheet strength awaiting better prices. Energy Fuels is one of only three U.S. uranium miners still in production, and is the largest U.S. uranium producer in the U.S., as well as being a vanadium producer.

Energy Fuels is the leading US uranium producer and owner of the White Mesa Mill in Utah, USA

MARKET-LEADING, US-FOCUSED URANIUM PORTFOLIO

- Proven track-record of sustained US uranium market leadership
- Capacity to significantly increase uranium production
- 3 uranium production facilities with combined licensed capacity of 11.5m lbs. of U_3O_8 /year:
 - White Mesa Mill (Utah): **Producing**
 - Nichols Ranch (Wyoming): **Standby**
 - Alta Mesa (Texas): **Standby**
- White Mesa Mill is the **only** conventional uranium + vanadium processing facility in US
- Significant technical & commercial progress being made in the production of a rare earth element (REE) concentrate



White Mesa Mill in Winter

Source

Energy Fuels' recent Q2 2020 earnings results showed that despite no uranium or vanadium sales in H1 2020, the Company still increased their working capital by 8% QoQ to \$38.04 million. At June 30, 2020, the Company had \$28.3 million in cash and marketable securities, plus \$24.7 million of concentrate inventory. The Company has also recently announced streamlining their management to reduce costs, as well as a renewed focus towards planned future rare earths production.

At the same time Energy Fuels has been actively pursuing their strategy of using their White Mesa Mill to produce rare earths. They have brought in two leading rare earths experts to assist with their development and implementation of commercial and technical REE strategies. Energy Fuels' President and CEO, Mark S. Chalmers, explained that "Energy Fuels continued to consolidate our position as the clear leader in U.S. uranium production in Q2-2020, and we made significant progress in diversifying into rare earth element

production.”

For the remainder of 2020 Energy Fuels is aiming for 125-175,000 pounds of uranium company wide production, which should build inventory to about 640-690,000 pounds of uncommitted uranium. Of course the inventory build is with a view to selling at profitable prices to either the US Gov. Reserve or other buyers such as US nuclear utilities. The vanadium inventory is expected to reach ~1.675 million pounds of finished vanadium by end 2020.

In a recent statement, Energy Fuels feels it is striking the right balance between realism and optimism in its current position on uranium: “COVID-related production suspensions at major global uranium mines have created a widening gap between supply and demand and a strong potential for higher prices in the future. This means a higher realizable value for our uranium inventory. There is also good progress being made on uranium in the U.S. government. Our allies in Congress and the Trump Administration are pushing hard to fund \$150 million per year to create the U.S. uranium reserve. While progress with the U.S. government can be slow and uneven at times, there is bipartisan support for the creation of the uranium reserve, and we are optimistic this program will be funded and implemented. In addition, the U.S. government and Russia are negotiating an extension of the Russian Suspension Agreement, which is expected to lower imports of Russian uranium into the U.S. over the long-term.”

Energy Fuels summary of investment themes

ENERGY FUELS | Investment Themes

1 Largest US Uranium Producer

Producing assets ready to capitalize on recovery faster – and on a greater scale – than peers

2 Leading US Vanadium Producer

Produced large quantities of high-purity V_2O_5 in 2019; flexibility to respond to evolving markets

3 Rare Earth Production Potential

Use existing mill to produce REE concentrates; technical & commercial progress being made

4 US Government Support

US Uranium Reserve; US Nuclear Fuel Working Group; Extend Russian Suspension Agreement

5 Financial Strength + Retiring Debt

Cash, marketable securities & inventory of \$53.0 on 6/30/20, incl 575k lbs. U_3O_8 & 1.7m lbs. V_2O_5

92

U

Uranium
238.03

23

V

Vanadium
50.94

Source

Closing remarks

Usually it is by investing in times of uncertainty that the greatest gains are made. Energy Fuels' long term uranium contracts are now finished, but given that the US continues to use uranium for nuclear energy (~20% of electricity production) and for their nuclear powered US military submarines and carriers, it seems logical that 2021 will be a much better year for the US uranium producers as the US begins to build a substantial uranium reserve. Also, if we enjoy some vanadium price recovery in 2021 that would be the icing on the cake.

Currently Energy Fuels has a market cap of US\$217m, but I think 2021 will likely be a much better year for the leading US uranium miners.

Rhenium: A case study in critical metals inaction

It's wrong to say the U.S. Congress never gets anything done. In the midst of the partisan gridlock that paralyzed Washington past the start of the new fiscal year, the U.S. House actually passed the Defense Authorization Act for 2014, sending it to the Senate, where leaders say there's potential for early action.



What importance does that have for resource wonks – especially those who follow strategic and critical metals?

For those who plow through the 478 pages of House act (I read it so you don't have to) there's an alarm bell lurking in the torrent of legis-speak. Take this section in Title III:

“Tungsten rhenium wire for Department of Defense requirements

The committee is aware that the manufacturing of tungsten and molybdenum powders, including tungsten rhenium (WRe) wire, is used in a variety of Department of Defense (DOD) applications.

The committee is aware that currently there are not suitable

substitutes available for WRe wire.

Accordingly, the committee directs the Secretary of Defense to report to the congressional defense committees no later than February 1, 2014, with a determination as to whether DOD has a sufficient supply of WRe wire to support DOD requirements.

If not, the Secretary shall also submit a mitigation plan to ensure that DOD has a sufficient supply of WRe wire to support its requirements.”

In the case of Tungsten, the U.S. currently produces more than half of the metal it uses each year. Which makes Rhenium the weak link in the WRe chain. At the risk of spoiling the suspense for the SecDef staff tasked with reporting on the Tungsten Rhenium wire situation, they'll find that

- Rhenium has the second-highest melting point of any element – behind Tungsten, the other material in Tungsten Rhenium wire.
- According to USGS, the U.S. currently imports 78% of the Rhenium it uses, most of it from Chile and Kazakhstan.
- Rhenium is critical for high-temperature superalloys used in the turbines of the Joint Strike Fighter-35 and other fighter aircraft.
- There is no Rhenium in the U.S. National Defense Stockpile.

But don't bother looking for a Rhenium mine that produces this element. Rhenium doesn't occur freely in nature; it can only be recovered as a by-product of the copper and molybdenum smelting process. If it's not, Rhenium literally goes up in smoke – as a particulate that disappears up the smelter flue.

With just 50 tons or so produced worldwide each year, Rhenium is a rare metal by any definition. And it takes truly massive amounts of copper production to yield even the small amounts of Rhenium captured each year. According to General Electric:

“It takes, on Average, approximately 120 metric tons (264,554 pounds) or the equivalent weight of 44 Cadillac Escalade SUV’s – of copper ore to produce 1 ounce of Rhenium – or the equivalent of five U.S. quarter coins.”

But there’s good news – or at least there could be – by way of the proposed Resolution Copper mine in Arizona, projected to generate more than 20 tons of Rhenium per year as a copper by-product. That would increase U.S. Rhenium production by more than 200% – to a level nearly double the high point of U.S. Rhenium production at the end of the Cold War.

Not only would that help meet the non-specified military needs that caused members of the House Armed Services Committee to include the Rhenium Tungsten study into the 2014 Defense Authorization Act – it would provide for the first time a steady U.S. supply of Rhenium that would allow metallurgical engineers to “design in” the element’s remarkable physical properties, rather than engineer-out Rhenium needs the U.S. market cannot meet and which would only deepen foreign dependency.

And yet the copper mine in question remains in limbo, hung up in the very same U.S. House that passed the Defense Authorization Act – by mine opponents who claim the project will imperil a Native American sacred site, despite two rulings by the U.S. Forest Service that such concerns have no basis in fact.

U.S. policymakers have a choice to make. They can put in place a strategic resource development policy that would help produce more U.S. supply of critical metals like Rhenium – and, while they’re at it, the 18 other metals for which the U.S. is currently 100% import-dependent – or they can stick with our current faith-based resource policy on the theory that other countries will happily sell us the metals and minerals we fail to mine in the U.S.

Until then, Rhenium will remain an example of the leverage the U.S. places in other country's hands to provide – or withhold – metals critical to U.S. national security.