

# Tesla Scrambles For Lithium As Prices Double; Elon Musk and Silicon Valley Accused of Pushing War in Afghanistan

- Lithium batteries explode, cause fires, crash planes, cause wars, release cancer causing and fetus mutating vapors when they are on fire and fill the bank vaults of Elon Musk.

By [James Stafford](#)

Demand for lithium—the hottest commodity on the planet and the only commodity to show positive price movement in 2015—is poised to continue on its upward trajectory, becoming the world’s new gasoline and earning the moniker of “White Petroleum”. And the battle for market share in and around this commodity has everyone from major tech players to trend-setting investor gurus vying for a foothold.

Driven by the rise of battery gigafactories and game-changing Powerwall and energy storage businesses, the world now finds itself at the beginning of a lithium super cycle that is all about securing new supply, much of which is poised to come from lithium superstar Argentina.

We have Tesla in the far corner, building its battery gigafactory in Nevada, for which it needs tons of lithium at a reasonable price, and just last week Tesla announced its plans for the Model 3, which has already hit over 300,000 pre-orders. To give you an idea of just how meaningful this is, Tesla produced less than 50,000 cars last year. Elon himself mentioned during the unveiling that Tesla will be gobbling up much of the world’s lithium supply with plans to produce 500,000 EVs per year. “In order to produce a half million cars per year...we would basically need to absorb the entire world’s lithium-ion production.” Remember – this is one man, one company. Tesla’s soon-to-be-completed gigafactory will produce more lithium-ion batteries than the rest of the world combined.

And opposite Tesla, we have some other major players shifting gears that will affect the lithium space.

Chinese billionaire Jia Yueting is stepping onto Tesla’s playing field with its own electric car start-up, [Faraday Future](#), and [Apple](#) is planning one too, by 2019. Through its [Alphabet holding company](#), Google is also getting into the game with plans for a self-driving car.

They are fighting it out not only to be the first to capture the most electric vehicle market share and the best engineers, but they are getting down to the core of this arena, which is lithium—the key element that will make it all work.

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This is D-Day for lithium miners, and it’s all about new entrants to a space that is about to change exponentially. Big investors are definitively standing up and taking notice—and even jumping into the

game.

One of Canada’s most noteworthy investors in the mining sector, Frank Giustra, is the latest to see lithium for what it is—the single-most valuable commodity of our tech-driven future, and one that is already in short supply.

The investor extraordinaire with a focus on big mining deals has thrown his support behind [Lithium X](#) which is exploring in the key “Lithium Triangle” area of Argentina and is the [largest land holder in Nevada’s Clayton Valley](#), the only producing lithium area in the entire United States. Lithium X has over 15,000 acres in Clayton Valley, near Albermarle’s Silver Peak mine, the only American lithium producer right now, and about three hours from Tesla’s gigafactory.

“Right now, there is a lot of ‘smart money’ getting in on the lithium land rush, and a mining legend like Giustra would never have been late to this party in Nevada—but the big attraction is our lithium plays in Argentina, which is ground zero for the commodity in South America,” [Lithium X](#) Chairman Paul Matysek told Oilprice.com.

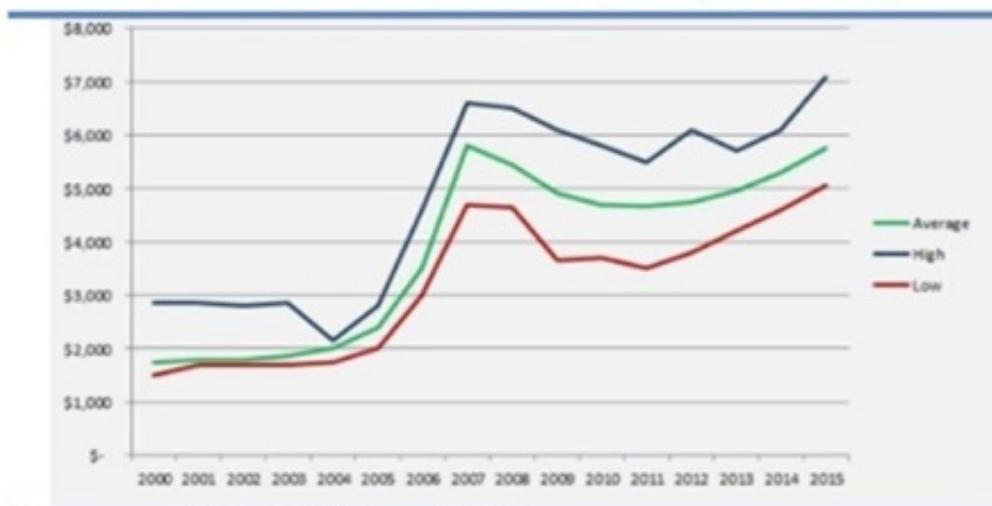
“At the end of the day, Frank ,likes to get involved in a project if he sees a massive shift in an industry’s fundamentals ,” Matysek added. “Lithium— is certainly showing all the right signs!”

### Floored by the ‘White Petroleum’ Fundamentals

The fundamentals here are impressive, and the catalysts for lithium prices are spectacularly clear—all of which is pushing prices up and creating an aggressively competitive playing field that is likely to see a lot of acquisition talk.

There are plenty of reasons to be bullish about what Goldman Sachs calls the [“new gasoline”](#) that will fuel our technology-driven resource era.

### Lithium carbonate price series (\$/t LCE)



Source: Global Lithium (2015)

(Click to enlarge)

[According to The Economist](#), the “global scramble to secure supplies of lithium by the world’s largest battery producers, and by end-users such as carmakers”, among other things, has seen the price of lithium carbonate imported to China more than double just in November and December of last year alone, when it reached an amazing *\$13,000 per ton*. Some contracts in China, according to Bloomberg, have seen over *\$23,000*.

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There is no denying that this is a euphorically tight market, with demand rising steadily and expected to spike drastically, and suppliers struggling to keep pace—which means that the door for new lithium supplies is wide open and this is now a fast-paced exploration and exploitation game.

And even without the battery gigafactories, a Powerwall and storage revolution or streets lined with electric vehicles—demand for lithium would still remain steady just to keep up with consumer electronics.

For the electric vehicle industry alone, Goldman Sachs predicts that for every 1 percent rise in EV market share, lithium demand will rise by 70,000 tons per year. Furthermore, Goldman Sachs predicts that the lithium market could triple in size by 2025 just on the back of electric vehicles.

### **The Hunt for Lithium Is On ...**

The lithium that is currently being mined quite simply is not enough to put a dent in the projected demand dictated by our hunger for consumer electronics and the pending energy revolution. This means that the new market is all about new players.

Right now, most of the world’s lithium comes from Australia, China and the “Lithium Triangle” of Argentina, Chile and Bolivia. In North America, Nevada is the only player in this game, but more to the point, the U.S. state has the best lithium there is to have—lithium found in the brine.

Lithium sourced from brines, or salt water, is the most cost-effective on the market, and sourcing enough of it right at home would be a coup for all sides in the battery, storage and EV game.

And while lithium has traditionally been controlled by a handful of major global suppliers, spiking demand is changing this landscape drastically.

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The four companies that currently control the lithium space—Albermarle (NYSE:ALB) in Chile and Nevada; SQM (NYSE:SQM) in Chile; FMC (NYSE:FMC) in Argentina; and Sichuan Tianqi in China—are about to make way for the new entrants.

And when it comes to new entrants, the biggest market share will be scooped up by those who can come up with the most lithium sourced from the brine. That means getting in on the new game in Nevada, but perhaps more importantly, securing positions in the bigger venues, particularly in Argentina.

Within the Lithium Triangle, it’s all about Argentina right now. Chile is not granting any new

concessions, and opposition in Bolivia has led to a suspension of lithium mining. Argentina has recently announced a deal with creditors to repay debt stemming from the country's 2001-2002 default, paving the way for Argentina's return to global financial markets.

And the Argentina lithium rush is [already in full swing](#), with miners eyeing resources of up to 128 million tons of lithium carbonate.

Investors have been pouring into this sector, according to Argentine Mining Secretary Jorge Mayoral, who [recently noted](#) that “all the big auto makers have been present in Argentina trying to get a foot in lithium development”, including Toyota, Mitsubishi and Posco.

For those who come up with the next supply, the industry will come right to them, and the sniffing around has already begun in full force.

By James Stafford of Oilprice.com

## **\$1 Trillion Motherlode of Lithium and Gold Discovered in Afghanistan**

[Lorimer Wilson - Financial Article Summaries Today](#)

A recently unearthed 2007 United States Geological Service survey appears to have discovered nearly \$1 trillion in mineral deposits in Afghanistan, far beyond any previously known reserves and enough to fundamentally alter the Afghan economy and perhaps the Afghan war itself.

Lorimer Wilson, editor of [www.FinancialArticleSummariesToday.com](http://www.FinancialArticleSummariesToday.com), provides below further reformatted and edited [...] excerpts from articles by **James Risen\*** ([www.nytimes.com](http://www.nytimes.com)) and **Una Galani\*\*** ([www.breakingviews.com](http://www.breakingviews.com)) for the sake of clarity and brevity to ensure a fast and easy read. Smith goes on to say:

The previously unknown deposits — including huge veins of iron, copper, cobalt, gold and critical industrial metals like lithium — are so big and include so many minerals that are essential to modern industry that Afghanistan could eventually be transformed into one of the most important mining centers in the world. An internal Pentagon memo, for example, states that Afghanistan could become the “Saudi Arabia of lithium,” a key raw material in the manufacture of batteries for laptops and BlackBerrys.

### **Obstacles to Development**

#### **1. Investment Risks**

While it would take many years to develop a mining industry, the potential is so great that officials and executives in the industry believe it could attract heavy investment even before mines are profitable, providing the possibility of jobs that could distract from generations of war. U.S. officials have held meetings with large listed miners about extracting deposits but the [present] huge investment risks mean the established players are unlikely to be leaping on the opportunity [any time soon].

#### **2. Security Risks**

The security risks make an investment by one of the big listed miners highly implausible judging by their behaviour elsewhere. Many have only just begun to operate in Western African nations that emerged from civil war several years ago.

Smaller startup miners may have more appetite for the mix of risk and reward but the recent suspension of licences from Canadian miner First Quantum Minerals Ltd. in the Democratic Republic of Congo, threatening a US\$1-billion investment, is a sign of how difficult projects can be.

### **3. Taliban Presence**

American officials also recognize that the mineral discoveries will almost certainly have a double-edged impact in that, instead of bringing peace, the newfound mineral wealth could lead the Taliban to battle even more fiercely to regain control of the country.

### **4. Rampant Corruption**

The corruption that is already rampant in the Karzai government could also be amplified by the new wealth, particularly if a handful of well-connected oligarchs, some with personal ties to the president, gain control of the resources. Just last year, Afghanistan's minister of mines was accused by American officials of accepting a \$30 million bribe to award China the rights to develop its copper mine. The minister has since been replaced.

### **5. Tribal Leaders**

Endless fights could erupt between the central government in Kabul and provincial and tribal leaders in mineral-rich districts. Afghanistan has a national mining law, written with the help of advisers from the World Bank, but it has never faced a serious challenge.

### **6. Chinese Interest**

American officials also fear that resource-hungry China will try to dominate the development of Afghanistan's mineral wealth which would upset the United States, given its heavy investment in the region. After winning the bid for its Aynak copper mine in Logar Province, China clearly wants more, American officials said.

### **7. Environmental Protection**

Another complication is that because Afghanistan has never had much heavy industry before, it has little or no history of environmental protection either.

### **8. Lack of Infrastructure**

With virtually no mining industry or infrastructure in place today, it will take decades for Afghanistan to exploit its mineral wealth fully.

### **Preparations Already Underway**

The Pentagon task force has already started trying to help the Afghans set up a system to deal with mineral development. International accounting firms that have expertise in mining contracts have been hired to consult with the Afghan Ministry of Mines, and technical data is being prepared to turn over to multinational mining companies and other potential foreign investors. The Pentagon is helping Afghan officials arrange to start seeking bids on mineral rights by next fall, officials said.

## **Background to Discovery**

In 2004, American geologists, sent to Afghanistan as part of a broader reconstruction effort, stumbled across an intriguing series of old charts and data at the library of the Afghan Geological Survey in Kabul that hinted at major mineral deposits in the country. They soon learned that the data had been collected by Soviet mining experts during the Soviet occupation of Afghanistan in the 1980s, but cast aside when the Soviets withdrew in 1989.

During the chaos of the 1990s, when Afghanistan was mired in civil war and later ruled by the Taliban, a small group of Afghan geologists protected the charts by taking them home, and returned them to the Geological Survey's library only after the American invasion and the ouster of the Taliban in 2001.

Armed with the old Russian charts, the United States Geological Survey began a series of aerial surveys of Afghanistan's mineral resources in 2006, using advanced gravity and magnetic measuring equipment attached to an old Navy Orion P-3 aircraft that flew over about 70 percent of the country.

The data from those flights was so promising that in 2007, the geologists returned for an even more sophisticated study, using an old British bomber equipped with instruments that offered a three-dimensional profile of mineral deposits below the earth's surface. It was the most comprehensive geologic survey of Afghanistan ever conducted.

The handful of American geologists who pored over the new data said the results were astonishing but the results gathered dust for two more years, ignored by officials in both the American and Afghan governments. In 2009, a Pentagon task force that had created business development programs in Iraq was transferred to Afghanistan, and came upon the geological data. Until then, no one besides the geologists had bothered to look at the information — and no one had sought to translate the technical data to measure the potential economic value of the mineral deposits.

Soon, the Pentagon business development task force brought in teams of American mining experts to validate the survey's findings, and then briefed Defense Secretary Robert M. Gates and Mr. Karzai.

## **Extent of Discoveries**

So far, the biggest mineral deposits discovered are of iron and copper, and the quantities are large enough to make Afghanistan a major world producer of both, United States officials said. Other finds include large deposits of niobium, a soft metal used in producing superconducting steel, rare earth elements and large gold deposits in Pashtun areas of southern Afghanistan.

Just this month, American geologists working with the Pentagon team have been conducting ground surveys on dry salt lakes in western Afghanistan where they believe there are large deposits of lithium. Pentagon officials said that their initial analysis at one location in Ghazni Province showed the potential for lithium deposits as large of those of Bolivia, which now has the world's largest known lithium reserves.

## **Conclusion**

For the geologists who are now scouring some of the most remote stretches of Afghanistan to complete the technical studies necessary before the international bidding process is begun, there is a growing

sense that they are in the midst of one of the great discoveries of their careers.

**That being said, any way you look at the opportunity the concerns over unlocking Afghanistan's treasures mean the country remains some time away from any magical resource-led transformation.**

\*<http://www.nytimes.com/2010/06/14/world/asia/14minerals.html?emc=eta1>

\*\* <http://www.nationalpost.com/Kabul+keeps+miners/3155195/story.html>

- [Afghanistan Mining Corruption, Part 1](#)
- [Afghanistan Mining Corruption, Part 2](#)
- [Afghanistan Mining Corruption, Part 3](#)
- [Afghanistan Mining Corruption, Part 4](#)
- [How Elon Musk, Google's VC's and Kleiner Perkins were involved in the Afghan mining corruption, Part 1](#)

Topics: Lithium prices, Tesla motors, lithium price jump, toxic lithium batteries, lithium ion