

The Disruptive Discoveries Journal

Weekly analysis of how disruption in commodities, geopolitics, and macroeconomics converge to create opportunities

August 30, 2015

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Tesla Buys an Out Of The Money Call Option on Lithium Supply

It's been interesting to read the mainstream media's impression of the recently announced lithium hydroxide supply deal between Tesla Motors (TSLA:NASDAQ) and Rare Earth Minerals PLC (REM:LON) and Bacanora Minerals (BCN:TSXV, BCN:LON), a joint venture with lithium concessions in Mexico. Arguably the biggest misconception is that TSLA has consummated a deal with companies operating an existing mine. This is not the case as the deposit at the center of the agreement is just that – a deposit.

Semantics aside, the agreement between the companies offers an interesting window into TSLA's supply chain strategies, and what the company has done here has purchased an out of the money call option on future lithium supply.

Out of the money options have no intrinsic value (they do have time value, of course) but are effectively used as a hedging strategy to lock in a given price in the future depending upon the option purchaser's view of future asset prices. The only capital in play is the option premium the option purchaser pays.

The only "capital" TSLA has at risk here is its name. The company has yet to commit any money that we know of to future supply of lithium, cobalt, or graphite – and this, to be clear, is still a significant risk for the company. The much more significant risks of financing a mining project, building the mine, and producing lithium hydroxide to TSLA's specifications still rest squarely with the REM/BCN joint venture (known as the Sonora Lithium Project Partners). Once the mine is built and lithium hydroxide is produced, TSLA will purchase a set amount at below market prevailing prices.

With respect to TSLA's accessing lithium hydroxide supply in the near-term, we still believe it will originate in China. This thinking is based on analysis of existing producers ex-China and the potential demand not just from TSLA, but other lithium ion battery manufacturers with somewhat less grandiose plans than the Gigafactory such as LG Chem.

One of the more interesting takeaways from the agreement is the fact that the Sonora lithium project is clay-based, rather than traditional brine or hard rock. As we currently know de minimis about the capital and operating expenditures at Sonora, trying to forecast financial metrics is difficult at best. The only other clay-based deposit where we do have significant financial data is Western Lithium's (WLC:TSX, WLCDF:OTCBB) King's Valley deposit in Nevada, though using those metrics as a proxy for other clay-based lithium deposits would be unwise. That said, the ability to produce lithium hydroxide or lithium carbonate at scale from a clay-based deposit could have significant implications on lithium feedstock in the future. It's just too early to tell at this point, but TSLA's interest mustn't be overlooked or minimized.

The Important Takeaway

Perhaps the most significant conclusion is that you're just starting to see these next generation value chains come to life. In an unrelated deal last week, auto parts maker Bosch (500530:BOM) purchased [Seeo](#), a California-based start-up which produces lithium polymer cells. This was likely done to lock up intellectual property around advanced battery chemistry. Similar deals are sure to follow as the "race" for the optimal lithium ion battery intensifies, not to mention the security of supply of various raw materials.

All lithium majors reported earnings recently and the takeaway from their lithium business was the same: forecasts of strong demand and the expectation for higher prices going forward. Given the increasingly acute threat of an economic deflation, this is decidedly good news. The forecast of higher prices can only help a junior lithium sector that is struggling and focused on sustainability at this stage of the commodity cycle. Perhaps an optimal strategy centers on waiting for TSLA et al to push up lithium prices and then optimize economic studies and return to the market with more attractive valuations.

Despite the lack of detail surrounding this lithium supply agreement, it is an encouraging first step. While it likely won't breathe new life into the mining space (if Friday's closing prices of the 34 lithium plays I track are any indication), it is a signal of companies anticipating future demand. I would expect to see TSLA and perhaps other battery manufacturers undertake additional "out of the money call option"-type deals as the lithium market tightens over the next two years. This is also likely to be true for cobalt and graphite.

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