

# Energizer making a dash out of the pack towards the graphite production finish line

The fact that Energizer Resources Inc. (TSX: EGZ | OTCQB: ENZR) had a pilot plant operating when most of the rest of the graphite pack were just discovering the mineral shows the level of seriousness of the company. It has leapt ahead in the Feasibility Study race and is now in the final straight for a production decision with a putative start date in late 2017.

Energizer Resources' prime focus is the exploration and development of its 100%-owned Molo/Green Giant Project located in the extreme south of the island nation of Madagascar off the east coast of Africa. This project is vast and thus encompasses different mineralisations. However at that time I first met them over five years ago it was primarily a Vanadium story, with a sideline in the then barely known graphite.

Time has moved on the graphite moved to the fore as Vanadium fell afoul of the steel industry retraction and graphite moved up due to the battery storage surge. Paradoxically though both of these very different minerals have applications in energy storage. Energizer refocused onto graphite and has now reached the advanced design phase. Recent financings have essentially got the company covered through to the mine build decision. In another recent development an investment bank has been secured to line up an offtaker/partner for the potential output.

Therefore it looks like another "hare & tortoise" situation where a company that had largely fallen off the public radar screen has silently crept up and got ahead of those that were more intent on blowing their own trumpets but not actually

doing anything. As a bonus, if added value was needed, it comes with a Vanadium “option” embedded within it for future consideration or spin-out.

## A Refresher on Molo/Green Giant

This concession is located 145 km SE of the port city of Tulear with a land position consisting of 36 licenses covering around 225 km<sup>2</sup>.



The property is located in an area that has good access via a network of seasonal secondary roads from the village of Fotadrevo, which in turn has access to a regional road system that leads to the regional capital of Toliara. Unlike the typical image of Madagascar as lush jungle the part of the island where the property is located in the rain-shadow and

thus it has a dry semi-desert climate subjected to seasonal cyclonic rainfall.

## **Current Strategy**

The goal at the current time is to get a Front End Engineering Design Study (FEED Study) completed for the Molo graphite project. The FEED Study is being undertaken in order to determine potential development path options that have been presented to Energizer by prospective strategic partners. The current timetable has a 4Q17 start to construction and production in late 2018.

## **Graphite Potential Crystallises**

The PEA study, working on the assumption of open-pit mining, was completed in February 2013. The company initially had a target for a production start-up in 2015, with an output capacity of between 50,000 and 150,000 tpa, but that fell afoul of the market's grim financing conditions. Energizer's technical partner DRA was designing the mine with three 50,000-tonne modules, whereby the Molo mine would begin initially at 50,000 tpa, but could expand to produce additional graphite as the market requires.

Then in February 2015 Energizer announced the results of its Feasibility Study. The main metrics were:

- Post-tax: NPV ( at 10% ) of US\$390mn
- Post-tax: IRR of 31.2%
- Payback in 4.84 years
- Capex of US\$149.9 million (down from \$162mn in the PEA)
- OpEx per tonne of concentrate (Year 3 onward) of US\$353
- Transportation per tonne of concentrate (from mine to port Year 3 onward) of US\$182
- Transportation per tonne of concentrate (from Madagascar Port to European Customer Port from Year 3 onward) of US\$155
- Average annual production of concentrate of 53,017

tonnes

- Life of Mine – 26 years
- Graphite concentrate sale price (US\$/tonne at Start Up – 2017) US\$1,689 per tonne
- Average Head Grade of 7.04%
- Average ore mined per annum 856,701 tonnes
- Average stripping ratio of a very low 0.81:1

With the ball rolling on the FEED study and significant financing in the door the company is now set upon the task of finding the largely financing tranche.

### **Hiring a Matchmaker**

In mid-July the company announced that it had appointed London-based HCF International Advisers as its advisor in negotiating and structuring strategic partnerships, off take agreements and debt financing. HCF is an independent corporate finance advisory boutique based in London, UK and focused on the global natural resources and infrastructure sectors.

Since it was established in 2003, HCF has executed transactions with a combined value exceeding USD\$12bn. Notably, HCF advised Turquoise Hills Resources on the introduction of Rio Tinto as a 19.9% strategic equity investor, and with the structuring and raising of the US\$4bn project financing to develop the Oyu Tolgoi Copper-Gold Project in Mongolia.

### **Funds Start to Flow**

It was a good sign to the marketplace when Energizer announced in recent days that investment funds managed by Goldman & Company, an affiliate of Dundee, purchased CAD\$6mn in shares in the recent non-brokered private placement. This took Goldman's stake in Energizer to just under 20%.

The total issue was an offering of 96,064,286 common shares at a price of CAD\$0.07 per share for aggregate gross proceeds of

CAD\$6,724,500. Sprott Asset Management and significant existing shareholders represented the remaining investors.

The stock price of Energizer lifted slightly but clearly the market has taken its eye off this story as the market cap is almost derisory compared to many far less advanced (and more challenged) players in the graphite space. This must make it a potential acquisition target, but we suspect the stock price will start to move up from here on out.



The net proceeds of the offering will be used to fund the completion of the FEED Study.

### The Resource & Reserve

The mineral resource for the Molo deposit the last time we looked at it consisted of:

- a Measured resource of 23.62mn tonnes grading 6.32% C
- an Indicated resource of 76.75mn tonnes grading 6.25% C
- an Inferred resource of 40.91mn tonnes at 5.78% C

This gives a combined total of 141.28mn tonnes at 6.13%C. A cut-off grade of 4% C was used for the “high grade” zones and 2% C for the “low grade” zones. Interestingly while the ‘high’ grade resource occurs within the ‘low’ grade resource, each was estimated and reported separately. The resource remains open along strike and to depth.

The reserves consists of:

- Proven – 14,170,000 tonnes at 7%
- Probable – 8,367,000 tonnes at 7.04%
- Proven and Probable – 22,437,000 tonnes at 7.02%

Energizer has ventured that Molo will be the one of the world’s largest known single source deposits of high-grade graphite. The company claims that Molo’s size and scalability will be a barrier to entry for other producers.

## **Conclusion**

In light of this project’s position in East Africa I can’t help thinking that an Australian listing would glean the company more love. After all it’s a long way from Toronto for investors to focus their spyglass but just across the pond for Australian investors who have traditionally “done” East Africa with more ease.

In any case, Energizer has survived the lean years after the end of the brief Graphite Boom and shown itself to be immensely adaptable having done a timely de-emphasizing of Vanadium just when that metal faded. The potential for V in the battery space is only starting to be recognized so Energizer has a foot in two technologies, so to speak.


Graphite has been the laggard in the three elements crucial to Lithium Ion batteries, with Lithium and Cobalt making a dash while graphite has been trailing, possibly because it was not clear which of the players would be the survivors.

Graphite is likely to regain its attraction to mining investors at least up until such time as there are enough Western producers to allay supply fears. That Dundee waded in with such a significant investment shows that selectively the smart money is trying to pick the winners and avoid the never-gonnabes. Energizer, with its Feasibility Study under its belt, and FEED study coming down the pike, has barged its way to near the front of the pack. This is essentially a reiteration of the same idea I have propagated in lithium and REEs that the first few sizeable projects through the gate effectively kill off the prospects of latecomers (no matter what their virtues might be).

With Dundee making a vote of confidence and the hunt for an offtaker/strategic partner hotting up, it would appear that Energizer is making a dash out of the pack towards the production finish line.

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## **Madagascar's reinstatement to the AGOA trade regime good news for Energizer Resources**

Madagascar will be re-admitted to the list of beneficiaries  of the African Growth and Opportunity Act (AGOA), a preferential trade regime granted by the United States. In 2009, in response to an unclear political situation following the coup that led to the overthrow of President Marc Ravalomanana, the USA excluded Madagascar from AGOA. On June 26, Barack Obama signed a presidential order to restore Madagascar to AGOA. The restoration should help Madagascar improve its overall economic situation, especially as far as

companies operating in free zones are concerned. This is good news for Energizer Resources ('Energizer', TSX: EGZ | OTCQX: ENZR) because it means that when it enters production it will be in a position to take advantage of much better trade terms for its graphite, meaning it can compete very effectively in the rising Li-Ion battery market against all future North American graphite producers. Indeed, AGOA, first introduced in 2000, aims to facilitate the access of Southern African products to the United States through favorable tax treatment – exemptions from customs duties for more than 70% of revenue.

Washington updates the lists of beneficiary countries each year, based on criteria such as commitment to liberal economic policies, efforts to reduce poverty and to maintain the rule of law. Madagascar's reinstatement to the AGOA trade regime is an important new step in the normalization of the country's foreign relations. It comes just weeks after the resumption of relations between the IMF and Antananarivo after five years of suspension, through the approval of an emergency loan of \$ 47 million. The World Bank has announced the resumption of its aid to the country and the mobilization of funding \$ 400 million over three years.

Energizer is developing its Molo project, as part of its Green Giant property in Madagascar, which has extensive graphite (as well as vanadium) deposits. Energizer had further assets in the area but it last year it decided to concentrate solely on the Molo project, which has shown to hold one of the largest crystalline graphite deposits in the world. Last April, Energizer consolidated its ownership in the Molo graphite project, buying the 25% portion that was held by its joint venture partner Malagasy Minerals. This transaction means that Energizer now owns 100% of the Molo project property along with all the rights over industrial minerals identified on the property covering 94,011 hectares. However, the Molo deposit itself, as has been outlined, accounts for only 1%, or 62 hectares of the land. Energizer regards this acquisition as a



“milestone” that has enabled the Company to pursue off-take negotiations and funding agreements with strategic partners. The project is expected to begin a large-scale production in the second quarter 2016. Molo contains 84.04 Mt of Indicated Mineral Resources at 6.36% and inferred 40.34 Mt at 6.29% carbon crystalline flake graphite.

Energizer Resources has already completed the scoping study for the project and began the comprehensive feasibility study which should be completed in the fourth quarter 2014. In early November, Energizer announced that the graphite that was identified was of a very high purity level, having a 99.9% graphitic carbon content by additional purification upgrading. Energizer can achieve very high purities of 97.7%C with simple flotation, which is excellent in itself. Energizer said that this represents the single largest graphite discovery in Madagascar while the deposits have shown very high purity levels, easily able to meet the requirements for Li-ion batteries destined for the growing electric automobile industry and beyond.

Energizer has established partnerships with DRA Mineral Projects, a South African mine development firm that has also worked with Rio Tinto (RIO) and Vale (VALE), which helped speed up the PEA process and begin graphite production within two years time. The Green Giant project, overall, includes 29 drill holes, 20 trenches and regional sampling with 670 samples. Energizer is also developing the Fotsy and Fondrana deposits at the Green Giant property. In these areas, Energizer has announced that samples have indicated grades ranging from 5.19% to 12.16% up to depths of 138 meters, which suggests that Green Giant should support multiple stand alone deposits; however, the exploration and engineering will be focused on Molo for the time being in order to speed up development.