Energizer Resources Outlines Its Mine Development Plan in Response to Graphite Demand and Enhanced Quality of the Molo Graphite

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TORONTO, ONTARIO--(Marketwired - Sep 9, 2013) - Energizer Resources Inc. (OTCQX:ENZR)(TSX:EGZ)(FRANKFURT:YE5)("Energizer" or the "Company") is pleased to outline the milestones the Company has achieved on its Molo Graphite Project in Madagascar:

- **Completed a maiden NI 43-101 resources estimate with 9,246m of drilling, establishing the Molo as one of the largest known graphite deposits in the world;**
  - 84.0Mt Indicated @ 6.36% carbon (C)
  - 40.3Mt Inferred @ 6.29%C
- **Completed a PEA study indicating robust economics: $421M Pre-tax NPV discounted @ 10%; 48% Internal rate of return (IRR); 3-year payback; $162M Capital cost**
- **Molo graphite concentrate achieved an ultra-high purity of 99.9% Con a first-pass, single-stage hydrometallurgical purification test using conventional leach technology testing at SGS Canada Inc.**
- **47.4% of the Molo graphite concentrate is classified as large & jumbo flake size (greater than +80 mesh)**

According to Craig Scherba, President & COO, "*The recent metallurgical results indicating that nearly half (47.4%) of the graphite concentrate produced from the Molo composite material submitted for analysis at SGS consists of large and jumbo flake graphite at a grade of 96.8% C, was certainly a pleasant surprise as the highest quoted natural flake graphite prices, are those for +80 (large flake) at purities greater than 95% C. In addition to a large proportion of premium quality graphite flake, we have also achieved an ultra-high purity concentrate of 99.9% C with first-pass single-stage hydrometallurgical purification, and all of our graphite concentrate can be upgraded to this ultra-high purity. We are also pleased to note that we can achieve high purity grades through flotation or physical processing alone, which has significantly less expensive operating costs than achieving ultra-high purity through chemical or pyrometallurgical methods. This will potentially position us as one of the lowest cost producers of ultra-high purity graphite. The Molo deposit is therefore well positioned to not only be capable of supplying the largest and most significant graphite markets (refractory, foil and lithium-ion) with high purity material, but to also have the capability of supplying the small but growing ultra-high purity graphite market.*

On behalf of the management and board of Energizer Resources, we are very proud of the speed and quality in which we have advanced the Molo graphite project, and believe that the already robust economics presented in our Preliminary Economic Analysis will be positively impacted by the recent metallurgical advancements in a Full Feasibility study. As a result, we feel that the Molo is well positioned to be a significant contributor to the global graphite supply, and we are striving to reach that goal despite the challenging capital market environment."

Mine Development Update

Advancements in Molo's metallurgical process yielded a superior final flotation concentrate with a coarser flake size distribution and higher grades in each size class as compared to the PEA Study. In the size fractions greater than +80 mesh (large flake), the Molo flotation concentrate consistently yielded grades greater than 96% C. Of particular significance was that even the small flake fractions of less than 150 mesh responded well to the optimized process with grades of greater than 95% C. The improved quality of the flotation concentrate in terms of grade and size distribution is expected to have a positive impact on the already positive IRR and NPV of the project.

According to Kirk McKinnon, Chairman and CEO, "*We were able to fast-track the Green Giant project and Molo deposit because of our exploration experience and early exposure to Madagascar. Energizer discovered vanadium in 2007 and completed a NI 43-101 resource, ranking our vanadium project as one of the largest known vanadium deposits in the world.*

Through that period, we gained significant insight into the battery power and storage market and this exposed us to the fact that natural flake graphite is a substantial raw material in vanadium-redox batteries. We were also able to understand the critical role that graphite continues to play in lithium-ion batteries. We also noted that graphite, like vanadium, has a long and established role in the steel industry.

Consequently, the Company determined that although we had an excellent NI 43-101 compliant vanadium deposit, the market demand for graphite products was both stronger and more imminent. The energy requirements and capital cost to develop a vanadium mine was significantly higher than moving forward with a graphite mine not to mention the relative simplicity of processing graphite. Internally, we confirmed the quality and quantity of graphite at Green Giant and given what we deemed to be ease of development for the graphite, we felt strongly that in the short term, this was the best way forward to improve shareholder value

We completed a joint venture agreement with Malagasy Minerals to secure the rights to all Industrial Minerals within the surrounding area of the Green Giant property. After defining graphitic trends through geo-physical methods and extensive soil sampling, we immediately moved to drilling off a NI 43-101 compliant graphite resource at Molo. This included an Environmental Baseline Study, which was implemented under the Canadian Environmental Standards Guidelines (e3 Plus).

As we did with vanadium, we set about to understand the graphite market beyond our insights already established with vanadium. We found a rapidly evolving graphite market, with over 84 exploration companies managing approximately 150 graphite projects worldwide, however many were in only in the 'infant' stages of exploration. Of those 84 companies, only 3 have completed a PEA study, and only one has completed a Full Feasibility study. The consensus from industry analysts is that only 2 to 3 projects have the necessary criteria to make it to production. We also learned that there has not been a new graphite mine constructed outside of China and Brazil within the last 25 years.

Off-take producers were dealing with an explosion of new graphite demands from EVs, battery power, battery storage, foils as well as the consistent demand for graphite in refractories. The off-take players for graphite knew what they wanted but nobody could accurately define demand and give any meaningful insights into new evolving products and uses for graphite. All anyone really knew was that the graphite demand was fast-tracking.

Unlike gold, silver or base metals, without market understanding and a graphite product capable of meeting certain specifications and price points, there could be no mine development.

From the outset, we recognized the importance of building a strong interface with government and government officials of Madagascar, such as the Prime Minister and Minister of Mines, and to cultivate a positive experience at the local level in order to ensure acceptance and desire for our project to move forward. We have done both.

One of the first things we did was to align the Company with Africa's leading mine builder and operations firm, DRA Mineral Projects. With over 200 mines built to date in the African region and armed with a staff of over 1700, DRA has the necessary expertise to bring a project from 'design to mine'. The actual mine operation will fall under DRA's own Minopex group, a division of DRA that provides a 'turn-key' solution to operating the mine and who currently operate over 23 mines worldwide for tier-one mining companies such as Vale, Rio Tinto and Xstrata.

The involvement of both DRA and Minopex in the Molo project has allowed Energizer to not only fast-track the project, but to also de-risk it from an operations standpoint. DRA's operating model of being involved *throughout the engineering, construction and operation of the mine ensures a seamless transition between each stage and will optimize the mine output. Energizer remains the only graphite company that has a world-class E.P.C.M. firm already in-place to both build and operate its mine.*

The other important element to decide if we were going to move forward with the project was to understand more about the off-take market; and that meant we had to learn and understand about China, "the proverbial elephant in the room", with its approximately 70% share of the graphite market."

Graphite Market

In its quest to understand the demand side of the graphite market, the Company has interfaced with numerous international graphite producers and consumers over the past year in order to better understand specifications relating to product types, size and price points. Graphite producers acknowledge that the market is experiencing strong growth in certain channels and can identify the new emerging growth areas for flake graphite. However, there is little consensus on either the timing or the growth projections for those new demand channels.

In order to understand first-hand how Chinese graphite mines operate, and how best to compete with the lowest-cost producers of graphite, management visited China earlier in the year. During this trip, it was discovered that the conservative operating costs reported in our PEA study compare favourably with the operating costs of the top flake producers in China. Energizer believes that the recently reported metallurgical enhancements to the Molo will further improve on its operating costs, and have a positive impact on the already outstanding IRR and NPV of the project.

The following mine development decisions were made based upon the Company's market analysis:

- **Emphasis was placed on the optimization, through enhanced metallurgy, of the product offering by improving flake quality, grade and yield**
- **DRA has been engaged to generate new CAPEX and OPEX numbers based on the Company's new metallurgical analyses versus the existing numbers in our PEA study**
- **200 tonnes of composite Molo graphite mineralization was transported via existing, serviceable infrastructure to SGS in preparation for a pilot plant. The pilot plant will have the ability to maximize flake size, quality and purity to meet the various specifications requested by off take customers in order to allow them to adequately test our graphite and its ability to meet their requirements**
- **Energizer has engaged General Mining Corporation, who are experts in power management and are familiar with mining projects inside of Madagascar, in order to enhance our power supply and measure our requirements and abilities to interface with the neighbouring Sakoa Coal Project**
- **The Company has initiated new discussions with the financial community to reposition Energizer not only with its new enhancements to the PEA study but also as we move to a Full Feasibility study**

Brent Nykoliation, Senior Vice President, Corporate Development, commented "*With superior flake size, the ability to achieve very high purity levels through standard processing and confirmation that we can produce an ultra-high purity flake graphite concentrate of greater than 99.9% using standard leach technology, Energizer is in a very elite category. Energizer has the capability to be the lowest cost, vertically integrated graphite producer of value-added graphite products. With our pilot plant being initiated this month, bulk samples of our finished and optimized graphite concentrate is on track to be delivered to potential off-take partners in November."*

Over the next few months, the Company will provide updates and milestone achievements as it moves through its Feasibility study. Energizer is confident that the emerging sectors within the graphite market are signaling a major growth opportunity, as can be seen with recent news regarding Tesla Motors, BMW and Panasonic's plans for EV growth.

The Company believes the key passage through to mine construction and production is based on the absolute quantification to meet the necessary characteristics and specifications of the off-take customer. Energizer is 100% focused on this systematic approach as we fast-track the Molo project, and are conscious that each step must be thoroughly managed and delivered.

Qualified Person

The technical information in this press release has been reviewed by Craig Scherba, President and COO, P.Geo., a "Qualified Person" as defined in NI 43-101 Standards for Mineral Disclosure.

About Energizer Resources

Energizer Resources Inc. is a mineral exploration and development company based in Toronto, Canada, which is focused on developing its flagship Molo flaked graphite deposit in Fotodrevo, southern Madagascar. The Molo deposit is located in the Green Giant Graphite project, and is held 100% within the joint venture (JV) entity with Malagasy Minerals Limited. Energizer has a 75% ownership interest and is the operator of the Project.

Safe Harbour: This press release may contain forward-looking statements that may involve a number of risks and uncertainties. Actual events or results could differ materially from expectations and projections set out herein.

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