

Positive feasibility study results reinforce eCobalt's leadership position in U.S. cobalt market

Over the last twelve months, amid a complex interplay of supply constraints and positive demand pressures, the price of cobalt has gone from around \$12/lb to just over \$27/lb. While we can resultantly expect a number of new projects to begin exploration efforts, there remains a single near term, primary supply of cobalt in the United States. As a company that has recently received confirmation of functional project economics from a positive feasibility study (FS), eCobalt Solutions Inc. (TSX: ECS | OTCQB: ECSIF) ("eCobalt") has become perhaps the safest junior cobalt investment that the States has to offer.

Anyone who hasn't yet heard of the imminent explosion in the electric vehicle market likely doesn't care, so I won't go too far into the details, but half of the vehicle manufacturing cost will be taken up by the battery unit, making key ingredients such as lithium and cobalt the next hot commodities. In terms of the manufacturers creating the demand, Tesla may have the Nevada gigafactory, but China has numerous megafactories that deserve far more attention than Mr Musk's hype-fuelled affairs. The fact that Chinese companies such as CATL and Lishen are already producing large quantities of lithium ion units means that their scaling will have a greater effect on the marketplace than a single factory, regardless of size.

In 2016, megafactories burned through 46,000 tonnes of cobalt, but by 2020, it'll be more like 76,000 tonnes. eCobalt's Idaho Cobalt Project (ICP) is slated to provide a weighted average

annual production of 2.4M lbs of cobalt, 3.3M lbs of copper and 3,000 oz of gold over a 12.5 year mine life with an estimated pre-production period of 24 months utilizing a 0.25% cobalt cut-off grade. The economic model uses a 34% corporate tax rate and a 7.5% discount rate, resulting in an after-tax NPV of \$135.8M and an IRR of 21.3% using an average base case price of \$26.65/lb for contained cobalt in cobalt sulphate.

The authors of the study have concluded that it contains adequate detail and information to support a positive outcome for the ICP. Standard industry practices, equipment and design methods were used, and it was further concluded that the ICP contains a viable cobalt and base metal resource that can be successfully mined by underground methods and recovered to concentrate with conventional milling processes. Using the assumptions contained in the FS, the project's economics merit promoting the ICP to the financing and execution stage.

Moving forward, management's primary goal is to evaluate all opportunities for the ICP. eCobalt is considering securing offtake agreements for cobalt sulphate heptahydrate, which eCobalt has produced from recent metallurgical testwork and shipped to potential offtakers for evaluation. Initial feedback regarding product quality has been positive and requests for additional sample material are being fulfilled, but side projects aside, the fact that cobalt will likely move into supply deficit sometime (very shortly) after 2020 means that those producers lucky enough to be near-term in 2017 should be able to catch the very sharpest edge of the battery upside.

For me, the timing of this operation is just impeccable; looming market expansion and supply constraints will most certainly send explorers running for the drills, but with eCobalt almost powering up the conveyor belts for the first time, this is a company positioned so well as to be difficult to believe. Share performance on eCobalt has been immensely strong over the past two years, but this is nothing compared

to what will likely happen over the next five. Congratulations are certainly due for the positive feasibility study results, since this represents a culmination of many years of hard work, but investment is what the ICP needs now, and I don't think it's going to struggle.

Catching the cobalt ride

In the space of a year, the price of cobalt has almost tripled, but the value of shares in eCobalt Solutions Inc. (TSX: ECS | OTCQB: ECSIF) ("eCobalt") have climbed from just ten cents to an impressive C\$1.43 as the company confidently marches towards production of a metal that is increasingly necessary for our most basic of modern conveniences. Those investors who paid attention to our forecasts and bought into eCobalt last year are certainly reaping the most benefit, but is the buy window closed? The short answer is "nope".

The thing is, since cobalt has always been produced as a byproduct of nickel and copper mining, investors have been largely unable to gain direct exposure to the metal, but since cobalt is essential in the manufacture of a wide range of battery technologies, it has become somewhat of a hot commodity. On the back of near-unanimous forecasts that have consistently promised a serious bull run on all battery materials, eCobalt are one of a handful of companies that identified the need for a pure cobalt play in North America.

The Idaho Cobalt Project (ICP) is the 100% owned by eCobalt, and remains the only advanced stage, near term, environmentally permitted, primary cobalt deposit in the United States. In fact, construction is expected to commence

early next year, and the company are currently in the final stages of a full feasibility study, the results of which should be available within the next few weeks. All of this feeds into why I believe the company remains undervalued; operations have yet to commence at both the ICP and the Gigafactory, and once the latter achieves full capacity, the true scale of the cobalt supply deficit will become clear.

It will be at this point, sometime before 2020, when the tech metals markets reach fever pitch and the people who chose to pursue these valuable modern commodities will be in such high demand that this year's price action will look considerably more sluggish than it does today. Furthermore, cobalt stands to be a particularly dramatic story since, while other battery materials are expecting a surge in demand, both the supply and demand sides of cobalt are undergoing substantial changes.

Historically, the majority of cobalt has been produced from the copper belt which runs through the Democratic Republic of the Congo, Central African Republic and Zambia, but once again, this is tied to primary copper production and is unlikely to be able to meet the needs of the new-look markets. Moreover, production and offtake from these regions have been severely reduced of late as a result of the revelation that illicit mining practices and human rights abuses were rife. Add this to the frequent conflict that occurs in the region and one can see why North-America stands to benefit.

Normally, institutional investors are wary of small cap stocks, but right now these are, by and large, the only option for direct access to cobalt securities. To this end, eCobalt have received substantial support from Australia's Tribeca Global Natural Resources; the fund focuses on large liquid opportunities in equities, credit and commodities and has been ranked the number one performing hedge fund in all strategies globally in the 2017 Preqin Global Hedge Fund report.

eCobalt CEO Presents at #CTMS2017 “Cobalt: Essential Power...Infinite Possibilities”

In a recent presentation at InvestorIntel’s 6th Annual Cleantech & Technology Metals Summit (#CTMS2017), Paul Farquharson, President, CEO and Director of eCobalt Solutions Inc. (TSX: ECS | OTCQB: ECSIF) delivered a presentation titled, “Cobalt: Essential Power...Infinite Possibilities”. Addressing industry and investors alike, Paul provides an overview of the cobalt market, and eCobalt’s timeline for their Idaho Cobalt Project in the U.S.A. Paul also discusses eCobalt’s recent milestone – a feasibility study, as well as their transparent supply chain... to access the complete presentation, [click here](#)

eCobalt Locked & Loaded

The Idaho Cobalt project, wholly owned by Vancouver-based eCobalt Solutions Inc. (TSX: ECS | OTCQB: ECSIF) (“eCobalt”), is set to get busy after C\$15m of financing was sourced to advance the late-stage cobalt deposit. The project was placed on care and maintenance in May 2013 due to depressed financial markets and declining commodity prices; today, however, as cobalt shows strong signs of early recovery, its value as the only near-term and fully-permitted primary cobalt deposit in the United States is widely recognised.

Pre-hiatus, all major components of both the mill and concentrator, approximately C\$16m of equipment, was purchased and stored in warehouse and staging areas outside of the town of Salmon, close to the millsite. Since lithium-ion batteries were given the nod, the Idaho Cobalt project went from long-term slumber to significant head-start, newly able to make good on the rapidly expanding electric vehicle, grid storage, and renewable energy sectors.

Previous cobalt demand had been contained to the manufacture of super-alloys, but it became clear that the quantities of cobalt sulphate required by emerging battery manufacturers would considerably outperform the needs of the people whose metals must simply be harder than everyone else's.

Preliminary checks at the site showed that the operation could potentially switch production focus to cobalt sulfate heptahydrate for the rechargeable battery sector, leading to the commissioning of a Preliminary Economic Assessment (PEA) in January 2015 seeking full confirmation. Previous technical results were based on the production of high purity cobalt (HPC) metal for critical applications in the aerospace sector, and the future return to production of HPC remains a viable option, adding a layer of security to the Idaho Cobalt project that is attractive.

eCobalt will ethically produce environmentally sound battery grade cobalt salts, made safely, responsibly, and transparently in the United States. The project is comprised of the mine & mill site near the town of Salmon, and a stand-alone hydrometallurgical facility, for processing concentrates into refined cobalt, copper and gold products, will likely be located somewhere in Southern Idaho. The mine is expected to produce the equivalent of 1,500 tonnes of high purity cobalt sulfate annually over a projected mine life of 12.5 years.

On February 15th, the company announced C\$13m in bought deal financing which was extended to C\$15m not twenty-four hours

later. Closing of the offering is expected to occur on or about February 28, 2017, and, subject to the usual conditions, the team at eCobalt intend to use the net proceeds for advancing the Idaho Cobalt project towards production.

The asset represents a serendipitous stride into fortune; not only has the commodity price itself improved, but the recent additional attention drawn to ethical issues in the cobalt supply chain prompted buyers to seek a more responsibly produced material. Since the Idaho Cobalt project is located far away from any areas of conflict or human rights abuses, we can be confident that eCobalt won't struggle to shift their wares.

Whether it be the Gigafactory, Canada or China, Idaho is about to be supplying someone with just under 19,000 tonnes of inoffensively produced cobalt sulphate that will eventually find its way into many of our pockets. Its key function in the storage of power is lifting cobalt out of its twitchy sleep and putting it to work; it just takes quite a lot of lifting.

EV demand and Trump create the perfect stage for a Miss Cobalt

eCobalt Solutions Inc. (TSX: ECS | OTCQB: ECSIF) ("eCobalt") is a Canadian mineral exploration and mine development company primarily owning the Idaho Cobalt Project, a high-grade and primary cobalt deposit located in the United States; a fact from which eCobalt's ethical credentials are automatically derived. The metal's recent history has been chaotic, but it appears to be resolving into a clear demand for exactly what

eCobalt is on-track to provide; it's no surprise, then, that the trailing twelve months has seen their share price risen from C\$0.53 in January 2016 to C\$ 0.7 in January 2017.

Cobalt is usually produced as a by-product of nickel and copper mining, but with declining prices of these metals closing operations worldwide, the focus has shifted strongly to the problem of primary supply. The highly-anticipated eCobalt Idaho Cobalt Project has this issue already covered and is by far the most advanced project in the region. The Idaho Cobalt Project should go online within a year since it has completed all preliminary steps, with full capacity expected within two. Over a 12.5 year mine life the Idaho Cobalt Project is expected to produce almost 19,000 tonnes of cobalt sulphate.

Throughout 2016, concerns were raised over the involvement of child labour in the cobalt supply chain, particularly in the Democratic Republic of Congo (DRC). Amnesty International has been focused on the issue for some time and this year joined with African Resources Watch (Afresource) to publish a full report on the practices of artisanal miners in the southern regions of the conflict-ridden state. The research exposes significant weaknesses in the regulation of artisanal mining, from limited guidance on health and safety to insufficient labour rights.

The DRC is one of the poorest countries in the world and has suffered from decades of war and resulting political instability. Artisanal mining became a source of livelihood for many people when the largest state owned mining company collapsed in the 1990s, growing further during the Second Congo War when President Laurent Kabila encouraged people to dig for themselves since there was no hope of reviving industrial mining. These artisanal miners, referred to as creuseurs in the DRC, mine by hand using the most basic tools to dig out rocks from tunnels deep underground; children as young as seven scavenge for rocks containing cobalt in

mountains of industrial mining debris before washing and sorting the ore for sale.

Now, with people around the world increasingly relying on rechargeable batteries to power a myriad of essential portable devices, the demand for cobalt is climbing; along with it, the need for honesty and due diligence becomes paramount. Regardless of a gadget's desirability, any firm will struggle to sell its products in today's market if it became known that children were enslaved for its creation.

Consumers today seek to rectify injustices. Insinuations of child labour or unethical production sends buyers scrambling for genuinely ethical supply sources- great news for anyone already developing responsible cobalt supply sources.

The China Chamber of Commerce of Metals Minerals & Chemicals Importers & Exporters (CCCME) has instigated the Responsible Cobalt Initiative (RCI), supported by Chinese and other Asian companies, including a major Chinese cobalt producer, mobile giant Huawei, Sony, Apple, HP and Samsung amongst others. The CCCME will produce an action plan in the next 12 months focusing on promoting co-operation with the government of DRC, civil society at large and affected local communities on the ground.

Elon Musk ambitiously claims they will produce 500,000 electric vehicles a year by 2018, and has repeatedly stated that the cobalt will be sourced exclusively in North America. The price of cobalt is expected to continue rising over the next year. The mounting ethical pressures of the modern world has created the perfect stage for eCobalt to accept the position of Miss Cobalt, USA, graciously and on a platform of strong ethics.

eCobalt represents the only near term, cobalt deposit in North America

eCobalt Solutions Inc. (TSX:ECS | OTCQB: ECSIF), formally known as Formation Metals Inc. represents a unique opportunity for investors wanting exposure to the cobalt market. The company owns the Idaho Cobalt Project (ICP) and as the name suggests, the project is located in the USA. Why is this significant?

ICP represents the sole, advanced stage, near term primary cobalt deposit in the United States. At present the majority of cobalt is supplied from the Democratic Republic of Congo (DRC), which is responsible for roughly 69,500 tonnes of cobalt per annum out of a total 108,600 tonnes.

As more attention is being directed to sustainable and responsible supply chain management, there has been an effort over recent years on eradicating a group of metals known as “conflict minerals.” These generally are defined as gold, tungsten and tin containing minerals originating from the DRC and adjacent countries.

Although cobalt is mined in the Katanga province in the DRC and is quite distinct from the war-torn provinces of Eastern Congo and South Kivu regions which by and large are responsible for conflict mineral supply, as the bulk of cobalt originates from the DRC, the metal has been associated with these conflict minerals and this has created some supply uncertainty. This uncertainty in the United States in particular was further exacerbated when in March, Obama amended a bill that prohibited the import of key raw materials from African and selected countries as part of an effort to stamp out child labour. Cobalt (heterogenite) ore was on that

list (click for more information).

In June this year, eCobalt commissioned a feasibility study from SNC-Lavalin and Micon International, the results of which are expected by June 2017. Expecting a positive feasibility study, the company is considering its capital financing, including sourcing potential offtakes.

The Company has overcome a number of milestones over the last year including the completion of its Preliminary Economic Assessment (PEA) in May 2015, the completion of benchmark metallurgical tests and the successful oversubscribed private placement which raised C\$4.4m which has enabled eCobalt to move forward with the commissioning of its bankable feasibility study in June this year. As such we believe that the company is well placed to become the first dedicated cobalt producer in the United States.

eCobalt trades on the TSX and its share price has risen to \$0.59 this month from \$0.13 a year ago, indicative of management's consistent delivery of its goals.