



Advancing Sustainable Battery Materials and Graphite Purification for Clean Energy

CanmetMATERIALS Webinar on Battery Materials and
Recycling - 27th March 2025

V-Bond Lee, President and CEO

Forward-Looking Statement

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This Investor Presentation is not to be considered an offer to sell, or a solicitation of an offer to buy, securities, as such offerings may only be made by way of exemptions from prospectus requirements and only in those jurisdictions where such securities may be lawfully offered for sale. Any such offer to sell or solicitation of an offer to buy the securities described herein or during the presentation will be made only pursuant to subscription documentation. This Investor Presentation is for information purposes only and does not, and under no circumstances is it to be construed as, a prospectus, advertisement or an offer to sell or a solicitation to buy a security. No securities commission or similar regulatory authority has passed on the merits of the securities offered nor has it reviewed this Investor Presentation. The information contained herein, while obtained from sources believed to be reliable, is not guaranteed as to its accuracy or completeness.

FORWARD LOOKING INFORMATION

This Investor Presentation contains forward-looking statements within the meaning of applicable securities legislation. These statements reflect management's current expectations and assumptions regarding future events, company operations, and industry outlook. Forward-looking statements are often identified by words such as "may," "would," "could," "will," "intend," "plan," "anticipate," "believe," "seek," "propose," "estimate," "expect," and similar expressions. These statements are subject to various risks, uncertainties, and assumptions. Actual results may differ materially from those expressed or implied due to a variety of factors. Except as required by law, Volt Carbon Technologies Inc. (the "Company") assumes no obligation to update forward-looking statements should circumstances change. Volt Carbon Technologies is advancing the development and commercialization of proprietary Air Classification technology for sustainable dry separation of minerals, reducing environmental impact and enhancing graphite processing efficiency. This technology is expected to achieve 92%-98% carbon purity, comparable to traditional flotation methods, while significantly lowering processing costs to \$80-\$150 per ton, compared to \$560-\$2049 per ton using conventional methods. The Company anticipates that its dry separation process will result in a 99% reduction in greenhouse gas emissions, eliminate the need for wet tailings, and create commercial opportunities for by-products such as iron, silica, and calcium carbonate. Furthermore, Volt Carbon plans to expand into value-added graphite products, including Expandable Graphite and Graphene, which are expected to open new revenue streams. The Company estimates that its carbon credits could range from \$140 to \$340 per ton, potentially leading to an annual CO₂e reduction of up to 1.0 million tons. Plans are in place to construct and commission a demonstration facility within two years, with initial production expected to reach 500-750 tons per year. Future royalty and profit-sharing agreements could generate estimated revenues of \$500 to \$1,300 per ton, with projected long-term production of 500,000 tons of graphite, yielding potential profits between \$250M-\$650M. Volt Carbon's Solid UltraBattery technology continues to progress towards commercialization, with a focus on automotive, aerospace, and energy storage applications. The Guelph battery facility, which was commissioned in 2021, is planned for expansion into a megafactory, supported by a \$3M capital raise. The Company is actively pursuing strategic partnerships and licensing opportunities to scale Solid UltraBattery technology and believes it has the potential to compete with and disrupt current battery technologies due to its higher recyclability, lower carbon footprint, and simplified manufacturing process. By 2024, Volt Carbon expects to complete the development of multi-layer battery cells, targeting energy densities of 350-450 Wh/kg and achieving a cycle life exceeding 1,000 cycles. The technology is also expected to offer significant advantages in cold-temperature performance, with over 90% battery capacity retention at -20°C, outperforming leading battery solutions. Additionally, Solid UltraBattery pouch cells are projected to extend endurance for solar-electric aircraft by up to 50%, making them highly attractive for aerospace applications. The global demand for graphite is expected to increase significantly, with projections indicating a rise to 4.5 million tons by 2050, driven by the rapid adoption of EVs and energy storage technologies. Currently, graphite constitutes 28% of an EV battery's weight, highlighting the necessity of securing sustainable and efficient supply chains. The demand for low-oxidation graphite is also increasing, particularly in lithium-ion batteries and industrial applications, where its superior thermal resistance and performance advantages make it a critical material. Furthermore, Volt Carbon Technologies anticipates additional market growth opportunities in emerging sectors such as humanoid robotics and high-performance industrial applications. While Volt Carbon Technologies remains confident in its strategic direction, forward-looking statements involve various risks and uncertainties that may impact expected outcomes. Market demand for graphite, and battery technology could fluctuate, and supply chain disruptions may affect global graphite production and lithium-ion battery materials. The Company's ability to scale laboratory results to commercial production efficiently remains a key factor in achieving success. Additionally, the accuracy and reliability of historical geological reports, such as the NI 43-101 study on the Lochaber, Quebec graphite property, must be considered when assessing mineral resource potential. Securing funding and external capital will be critical for commercialization efforts, including the expansion of the Guelph battery plant. Regulatory and environmental policies could also influence the economic viability of the Company's proprietary dry separation method, and competition from alternative battery and mineral processing technologies could present challenges. Volt Carbon Technologies makes no guarantees regarding the realization of forward-looking statements and encourages investors to conduct their own due diligence before making any investment decisions.

Novel Graphite Separation

- ✓ **Pioneering sustainable graphite purification** using dry separation technology
- ✓ **Lowest carbon footprint with no water usage**, outperforming traditional mining methods
- ✓ **Mineral Processing Agreements in place for supply of graphite** - lowers risk
- ✓ **Expanding into value-added products**, including **Expandable Graphite & Graphene**
- ✓ **Strong IP portfolio** providing market advantage and differentiation



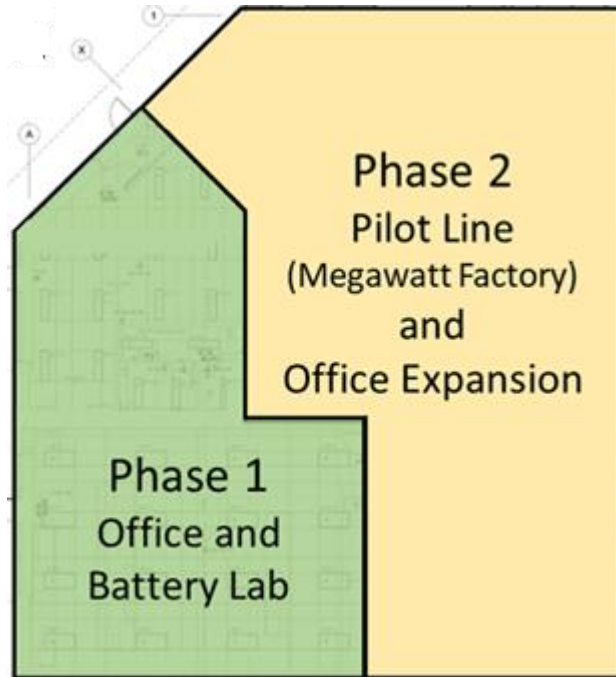
Solid UltraBattery – Guelph, Ontario

- ✓ Commissioned in 2021, **Advancing next-generation solid-state battery technology** for commercialization
- ✓ **Proprietary lithium-metal battery solutions** tailored for **automotive, aerospace, and energy storage**
- ✓ **Strategic partnerships** with **leading research institutions & industry stakeholders**
- ✓ **Strong IP Portfolio**, securing technological and market leadership



Next Step - Battery Plant Expansion to Megawatt Factory

- Buildout of Phase 1 Completed in 2021
- Future Raise of 3M to transform Guelph plant into a Mega factory.¹ The plant will produce battery products that generate revenue.
- Solid UltraBattery is actively pursuing partnerships and licensing opportunities for its technology.¹



Cell Chemistry and Battery Minerals

Charge is converting electrical energy directly to chemical energy.

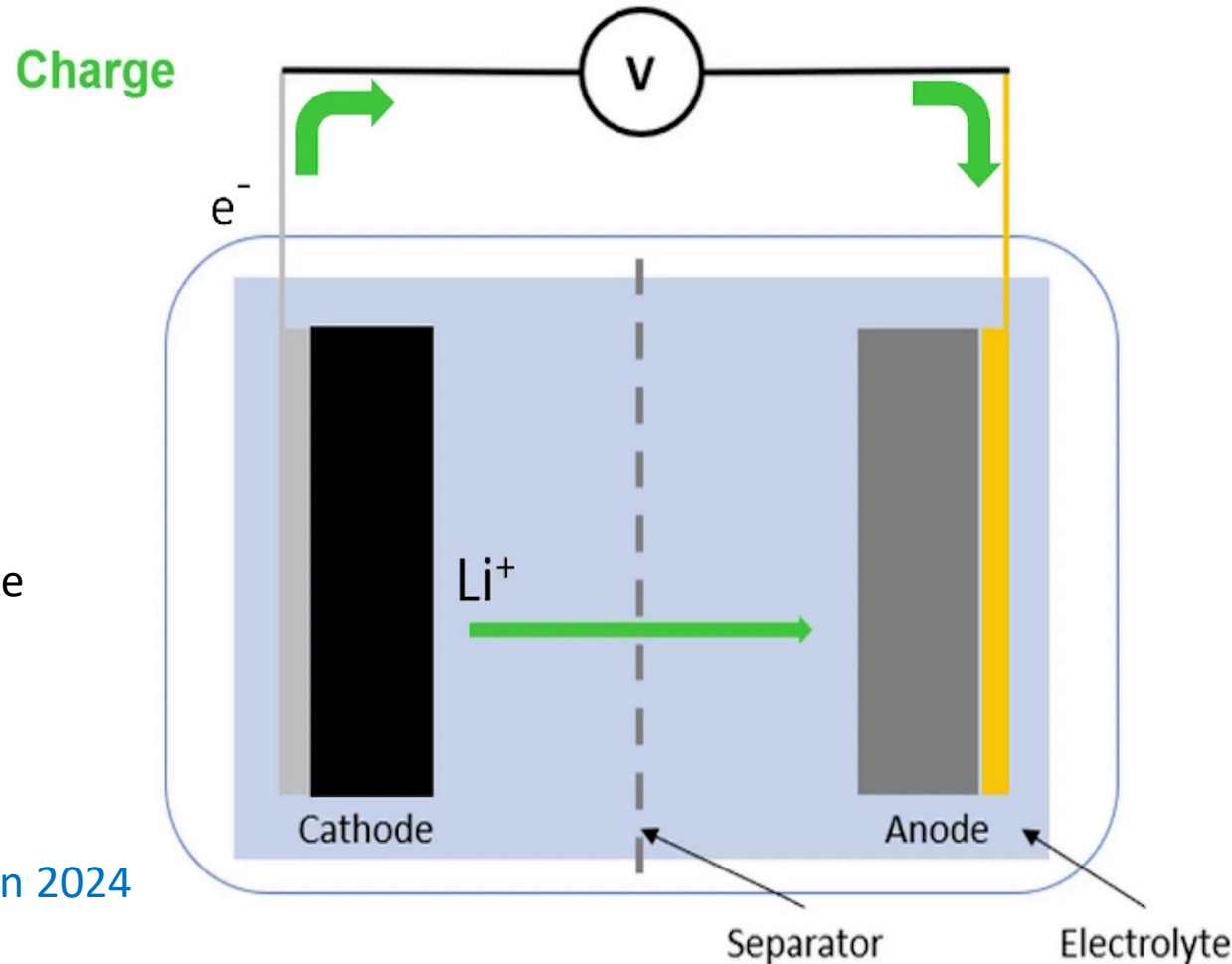
Discharge is converting chemical energy directly to electrical energy.

Cathode Options

1. High Nickel NMC811
2. Lithium Iron Phosphate
3. BMLMP (C4V)

Electrolyte

2 Patent Applications in 2024



Graphite for Anodes

1 Patent Granted (US)

1 Patent Pending

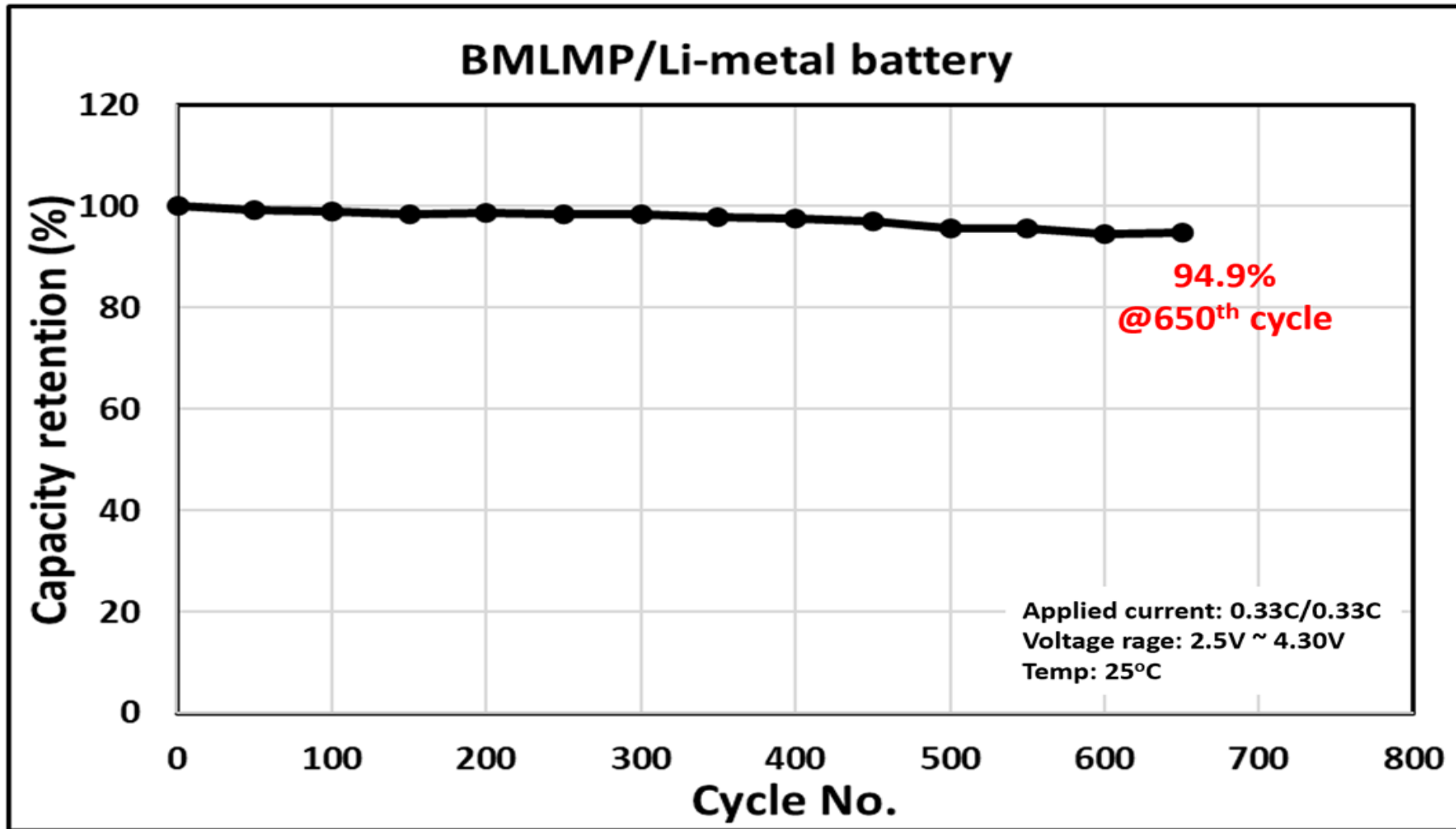
Separator, Solid State

1 Patent Granted (CDN)

1 Patent Pending

1 Patent Application in 2024

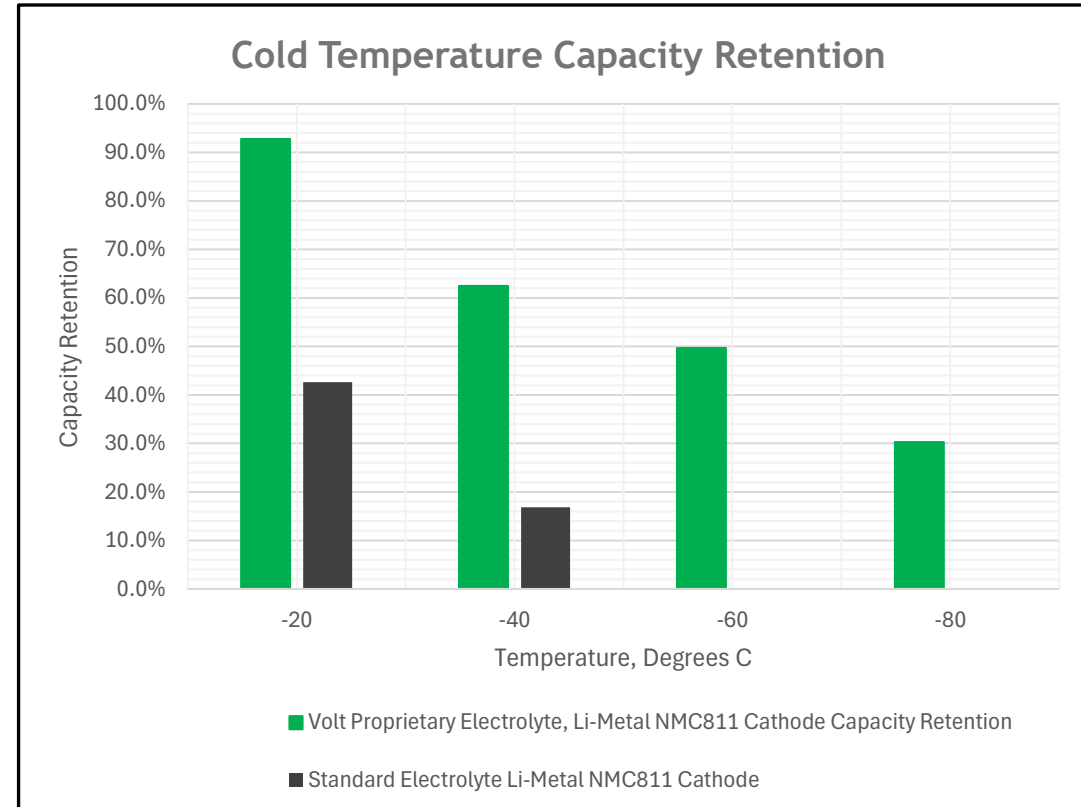
BMLMP¹ Results – Published Jan 2025²



- 1) BMLMP, Bio-Mineralized Lithium Mixed Metal Phosphate
- 2) Per Volt Carbon News Release Feb 4, 2025

Battery Cold Performance Published Sept 2024¹

- Development of a liquid electrolyte to improve low-temperature performance.
- Low-temperature performance targets $\geq 70\%$ retention capacity @ -60°C
- Room-temperature and cycle life performances on par with current technology
- Low-temperature performance at -60°C shows a 50% retention capacity of the capacity at room temperature



1) Per Volt Carbon News Release Sep 16, 2024

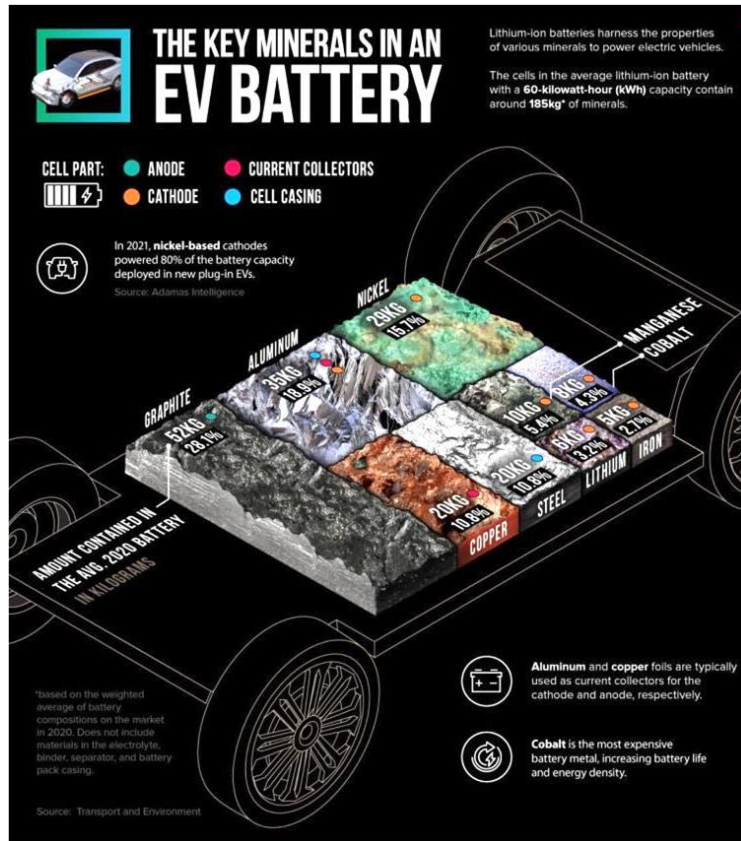
Lithium Metal Pouch Cell Specification Developed 2023

- **Capacity:** 5 Ah Target Cell
- **Voltage:** 2.8V – 4.2V Operating
- **Size:** 10cm x 10cm x 0.5cm
- **Energy Density, 2 Versions:**
 - 260 Wh/kg
 - 400 Wh/kg
- **Mass Est:** 75 g (260 Wh/kg)
- **Mass Est:** 50 g (400 Wh/kg)

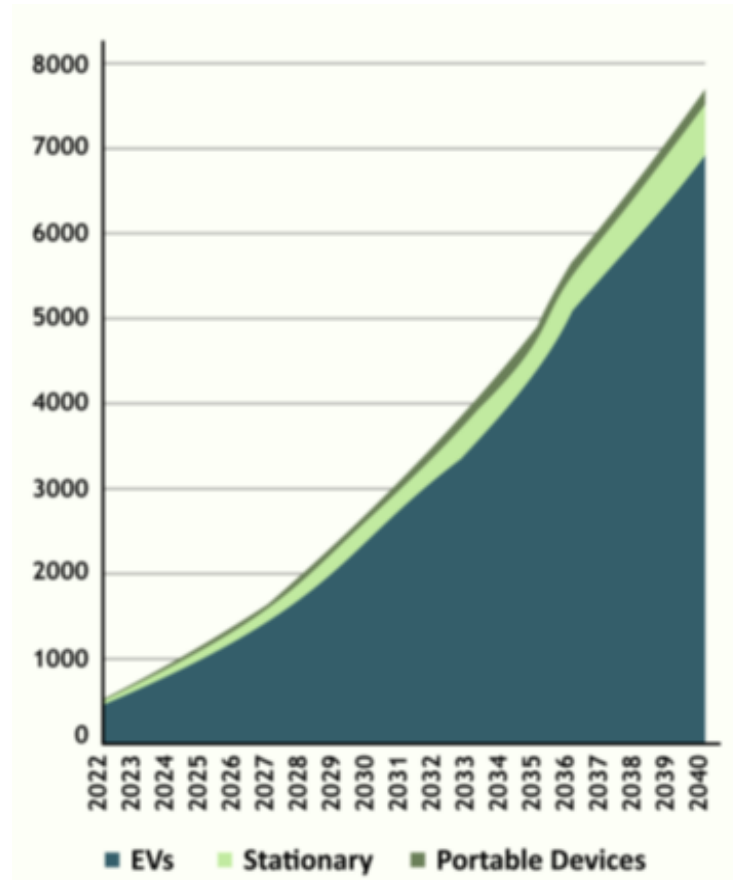


Graphite - The Opportunity

28% of an EV battery is Graphite



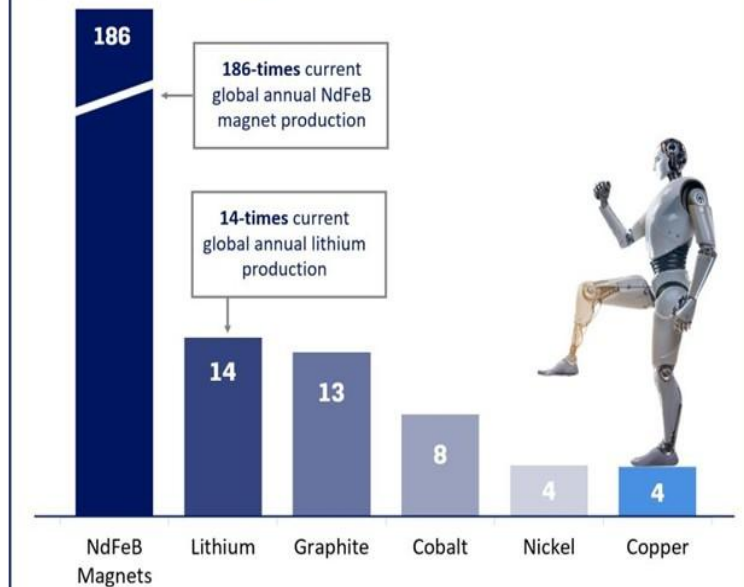
Unprecedented Growth Forecast (GWh)



Graphite in Humanoid Robotics

Mountains of Metals Needed for 10 Billion Humanoid Robots

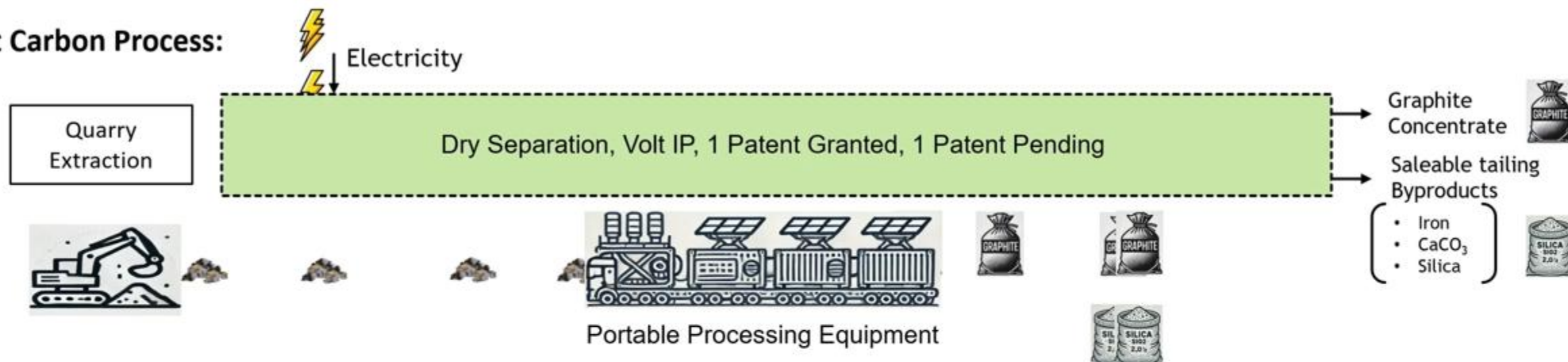
Current global annual production = 1



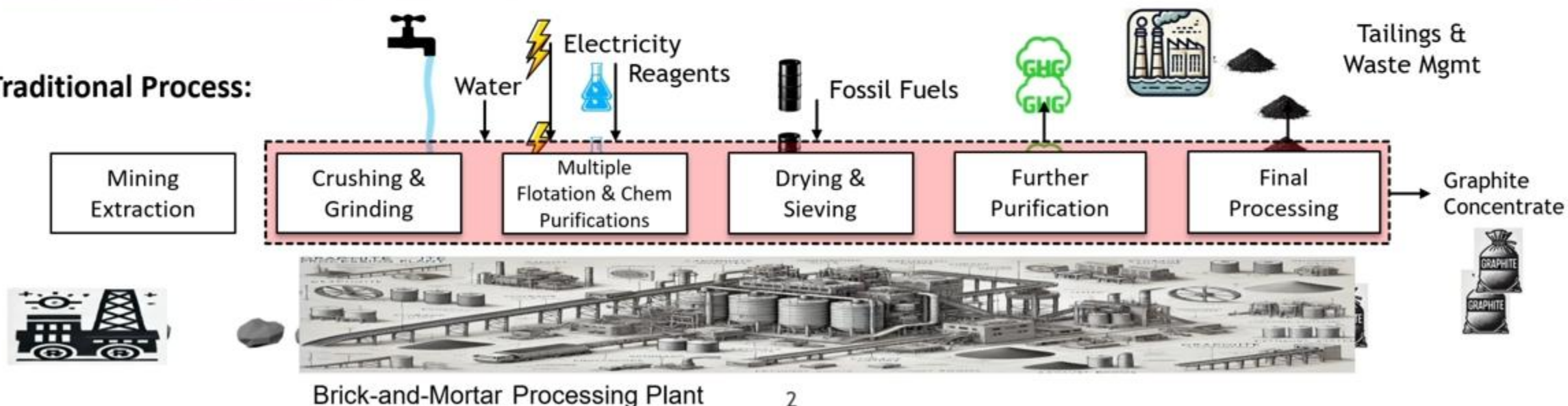
Adamas Inside

Sustainable Graphite Advantage

Volt Carbon Process:



Traditional Process:



The Dry Separated Graphite Advantage

Low Oxidation = Superior Stability

- ✓ Preserves Natural Flake Structure – Avoids mechanical damage from flotation.
- ✓ Slower Oxidation Rates – Enhances performance in high-temperature applications.
- ✓ High Thermal Stability – Ideal for lithium-ion batteries and conductive materials.
- ✓ Diamond Synthesis - Lower Energy
- ✓ Higher Yield during conversion to Anode Materials

Superior Expandability = Higher Value Graphite

- ✓ 325 ml/g Expansion Rate – Exceptional expansion for industrial use.
- ✓ No Chemical Damage – Maintains flake integrity, unlike flotation-treated graphite.
- ✓ High Carbon Purity (92%-98%) – Maximized expansion potential.

What makes Volt Stand Out

- ✓ No Harsh Chemicals – Environmentally friendly & cost-efficient.
- ✓ Higher Performance in Batteries & Flame Retardants – Increased efficiency & safety.
- ✓ Sustainable & Scalable – Broad industry applications.

These results and feedback comes from independent laboratory tests and potential customers who have validated our graphite performance.



+30 Mesh Screen
(Berkwood)

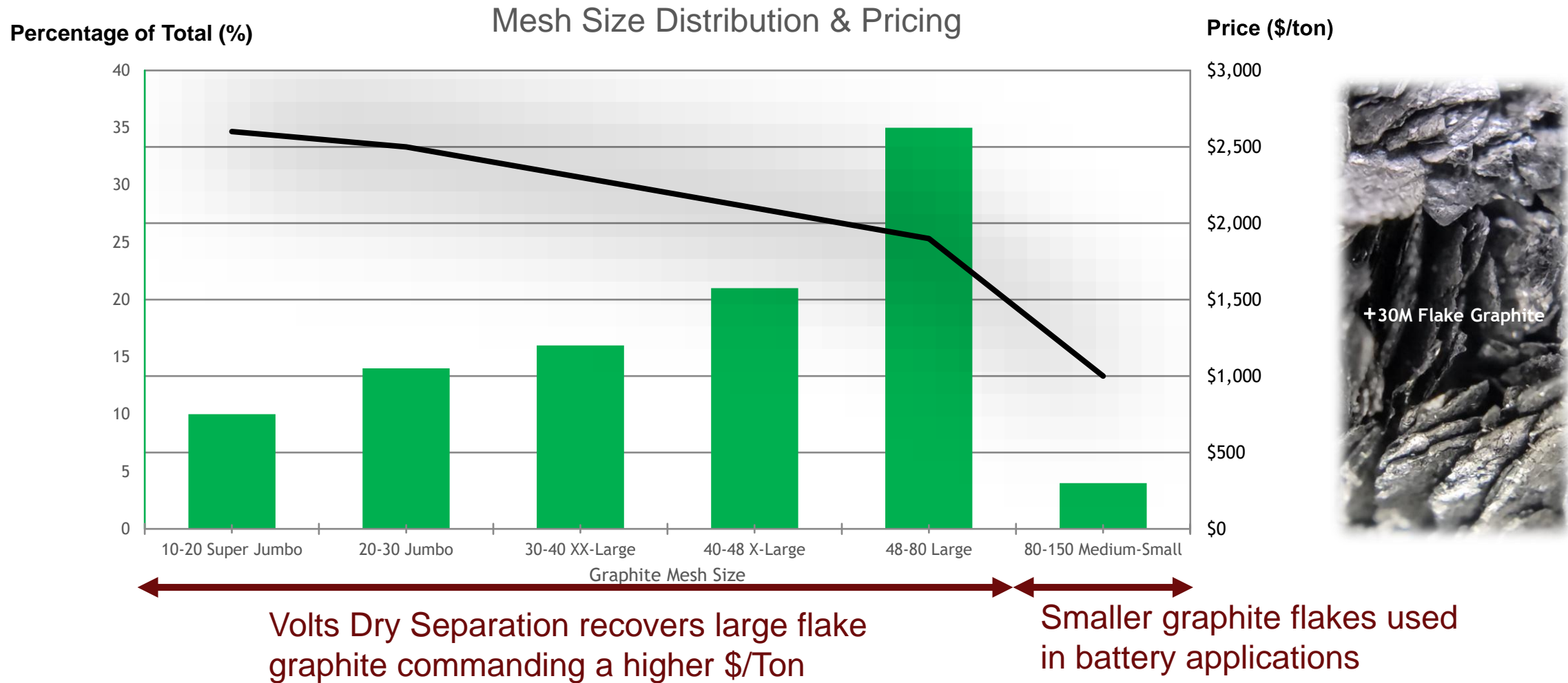


Synthesized Diamonds
(Berkwood)

¹ These statements are “forward looking information”. Please refer to the Forward Information Advisory on page two of this Presentation.

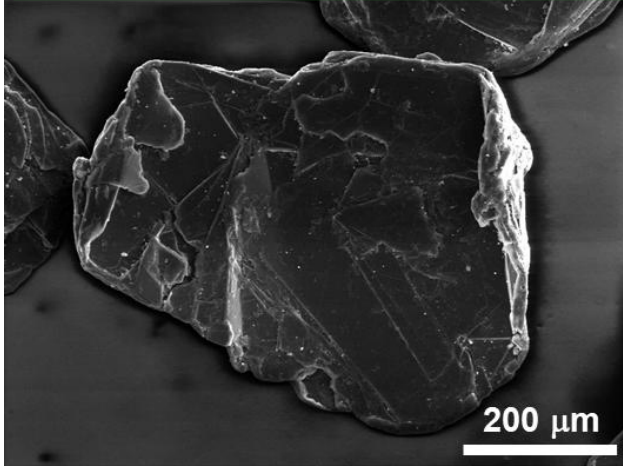
² Estimates and results are based on laboratory tests only and such results or estimates, as applicable, may not be replicated, scaled or result in the same estimates, measurements, or results in commercial utilizations.

Large Flake Graphite

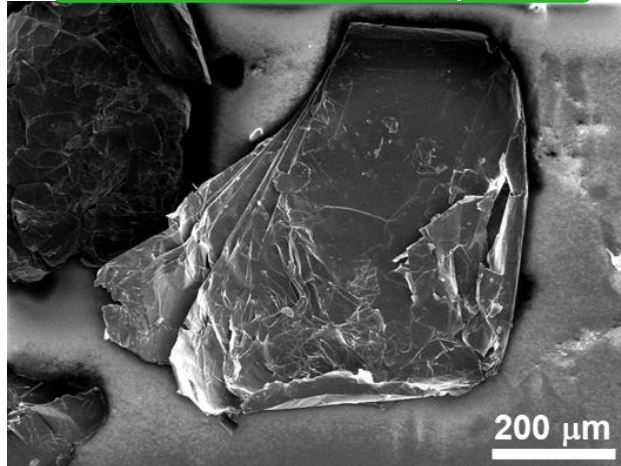


Expandable Graphite

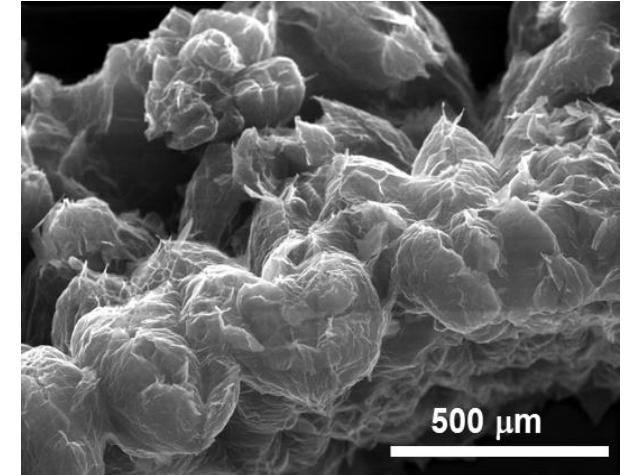
1) Volt's Flake Graphite +40M



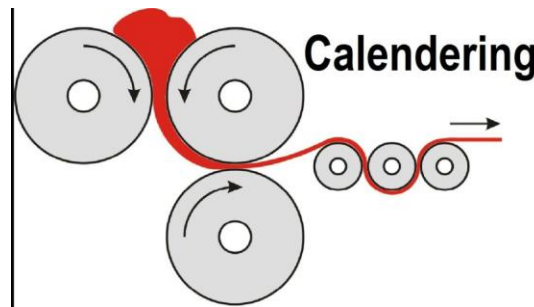
2) Intercalated Graphite



3) Expanded 200-400 times










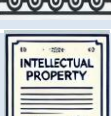
Expanded Graphite



Volt's Graphite Foil

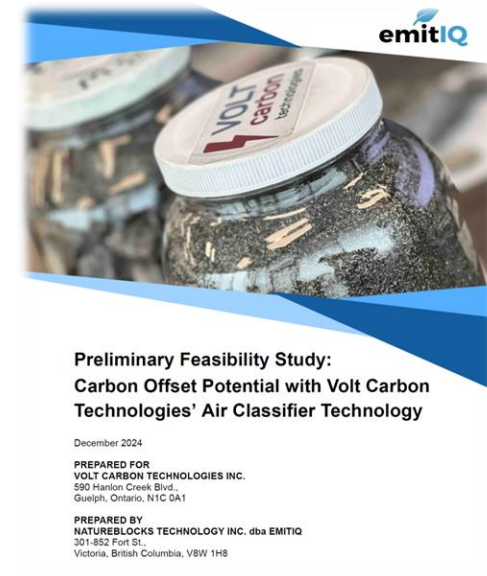


Volt's Dry Separation Method: Differentiators

Volt's Dry Separation is:		Volt's Advantage
	92%-98% Carbon purity	Equal to current flotation methods
	\$80-\$150 Cost Per Ton	Lower vs. \$560-\$2049 from Competition
	Highly Sought Low Oxidation graphite	Better battery performance & stability
	Quarry: 0.5 - 2 years Permitting	Faster than Mine: 5 - 15+ years
	1/3 of traditional mining CAPEX (estimated)	Lower costs, higher ROI
	Graphite, Iron, Silica, Calcium Carbonate	Additional monetization of Dry Tailings
	Mobile Processing Units	Deployed across multiple deposits vs permanents plants
	1 Patent Granted, 1 Pending	Innovative AI-driven separation planned

Preliminary Carbon Credit Feasibility Study

Category		Traditional Process	Volt's Dry Separation	75KTons/Year example
Greenhouse Gas		Up to 13.7 kg CO ₂ e/kg	99% reduction 0.123–0.15 kg CO ₂ e/kg	Up to 1.0M tons of CO ₂ e reduction per year
Water Usage		Up to 75L/kg	100% reduction 0 liters	Up to 5.625 Billion Litre saved per year
Chemical Use		Requires hazardous reagents	Chemical-free process	Benign Impact
Land Use Impact		Tailing ponds & erosion	No tailing ponds, minimal footprint (Dry Tailings)	Benign Impact
Carbon Credit Revenue		No known eligibility for premium credits	\$140-\$340 per ton under VCS & Gold Standard	10.5M-25.5M Carbon Credit Offset



Path Forward: Scaling Innovation & Sustainability

- ✓ **Graphite Purification Facility** – Establishing a demonstration plant to produce sustainable, high-purity graphite for battery and industrial applications.
- ✓ **Scaling Guelph Facility for Megawatt Production** – Expanding battery production capacity to support large-scale energy storage solutions.
- ✓ **Advancing Cold-Resistant High-Energy Batteries** – Developing next-generation lithium-based batteries with superior low-temperature performance for EVs, aerospace, and defense.
- ✓ **Commercializing Expandable Graphite & Graphene** – Bringing high-value carbon materials to market for fire-resistant coatings, thermal management, and advanced energy applications.

Thank You!

Questions?