Falcon Confirms Robust Economics in Anode Plant Study with US$86 Million Initial CapEx and First Production Targeted for H2 2027; Offtake and Testing Advancing

PRESS RELEASE **FOR IMMEDIATE RELEASE**

Abu Dhabi, United Arab Emirates, November 13, 2025 – Falcon Energy Materials plc (TSX-V: FLCN) (OTCQB:FLCNF) ("**Falcon**" or the "**Company**") is pleased to announce the positive results from the technical-economic study ("**Technical Study**") for its natural graphite spheroidization, purification and coating plant (the "**Anode Plant**") in the Kingdom of Morocco ("**Morocco**").

The Technical Study, prepared to the standards of the Association for the Advancement of Cost Engineering ("**AACE**") Class 3 level of accuracy by Dorfner Anzaplan UK Limited ("**Anzaplan**"), demonstrates the strong financial and operational fundamentals of Falcon's vision to become a low-cost producer of coated, spheroidized and purified graphite ("**CSPG**") at industrial scale.

HIGHLIGHTS

- Target annual production of **26,000 tonnes of CSPG and 19,000 tonnes of fines**;
- Initial capital costs, including contingency, estimated at **US$86 million**; and
- Operating costs of **US$3,168 per tonne of CSPG**[1].

Matthieu Bos, Chief Executive Officer of Falcon, commented, "This Technical Study validates our vision – it confirms that Falcon's approach is the most credible path to producing high-quality, low-cost CSPG at industrial scale. We are now moving decisively to close the critical gaps in the battery materials supply chain and to deliver essential anode materials to Western manufacturers and end-users through a reliable, compliant and qualified source."

Leveraging Advanced Technology and Procurement

The Anode Plant in Morocco is supported by a strategic partnership with a leading CSPG producer (the "**Technical Partner**"), with extensive experience building and operating both synthetic and natural graphite anode plants in China. The Technical Partner recently successfully built and commissioned in a large-scale anode plant in China. Falcon and the Technical Partner have leveraged the proven design, procurement and supply chain expertise from the recently completed plant to establish a highly competitive facility in Morocco.

This partnership enables Falcon to leverage established technology, procurement chains and learnings from recent process efficiencies to deliver high quality anode material at scale and competitive costs, to the rapidly growing European and North American markets.

[1] Operating costs are based on the actual costs of the previously built the plant by the Technical Partner, adjusted for costs associated with logistics and operations in Morocco using fiscal 2025 cost assumptions.

Anode Plant Flow Sheet

The Technical Study represents an additional step in confirming the economic viability of the CSPG facility in Morocco. Falcon's Anode Plant design includes:

- **Spheroidization Plant**: Using the latest processes to shape graphite flakes into spheres, increasing surface area and energy density, to produce spherical graphite ("**SG**");
- **Purification Plant**: Using hydrofluoric acid alongside hydrochloric and nitric acids to remove impurities, producing >99.95% spherical purified graphite ("**SPG**"); and
- **Coating Plant**: Applying an amorphous carbon (pitch tar) coating on SPG to enhance energy density and increase battery safety and longevity, producing coated SPG ("**CSPG**").

Location and Infrastructure

The Anode Plant, requiring approximately five hectares of land, will be strategically located in Jorf Lasfar, Morocco, benefiting from access to key port and energy infrastructure and free trade agreements with both the United States and the European Union. Falcon contemplates the construction of one single building (the "**Super Building**") to optimize the Anode Plant footprint and operational efficiencies.

Graphite Concentrate

Falcon has tested several high quality and attractively priced graphite concentrates that can serve as feedstock for the Anode Plant. There is a relative abundance of graphite feedstock available in the market, sourced from China, other international producers, and Falcon's own Lola Graphite Project once in production.

Spheroidization Plant

The spheroidization plant consists of three process steps: micronization, spheroidization of the micronized graphite to produce coarse primary SG, and secondary spheroidization to produce fine SG. The overall yield of the spheroidization plant is 60% resulting in 28,000tpa of SG. The process produces spherical particles averaging 18 microns (categorized as **"SG18"**) and 8 microns (categorized as **"SG8"**). SG18, representing 80% of the feed, is collected into a main collector and sent to the purification plant by pneumatic transportation. SG8, representing 20% of the feed is collected and sent to secondary spheroidization circuit in the purification plant, while the remaining fines by-product particles are sent directly to the bagging station and sold separately.

Figure 1: Illustration of Falcon's Super Building at Jorf Lasfar

Purification Plant

The purification plant increases SG purity from 95% to 99.95%, producing SPG. The purification plant consists of four separate process steps: a thermally supported chemical reaction, pressure filtration, washing, and drying. The SG is washed with a mixture of hydrofluoric acid, hydrochloric acid, nitric acid (the "**Key Acids**") and steam to remove impurities such as SiO_2, Al_2O_3, MgO, Fe_2O_3, and CaO. Key Acids are recovered and reused while final washing and drying reduce moisture to below 1%.

Coating Plant

The coating process is the final step in CSPG production. Graphite particles are coated with a thin carbon film (3-25 nanometres thick), using 10% wt. pitch tar as a carbon precursor, followed by thermal treatment in a coating furnace for SP18 and SP8 products. The cooled CSPG is deagglomerated, demagnetized, sieved and bagged to meet stringent end-user specifications.

Gas and Water Treatment

The Anode Plant incorporates advanced gas and water treatment systems to meet Moroccan environmental standards. The gas scrubber neutralizes off-gasses from the purification and coating plant using hydrated lime. The water treatment system, with a capacity for 432,000 t/a, treats all effluents before discharge to the local sewage network, ensuring compliance with Moroccan discharge limits.

Capital and Operating Costs

The estimated capital and operating costs for the project are presented below in Tables 2 and 3. The capital and operational costs are based on the actual costs of the Technical Partner's plant in China, adjusted for costs associated with logistics and construction in Morocco based on fiscal 2025 cost assumptions. There can be no assurance that costs incurred during the future operation of the Anode Plant will not be materially different than the cost estimates provided below, which are based on fiscal 2025 cost assumptions. The capital and operating cost estimates comply with the AACE' Class 3 level of engineering (recommended Practice 47R-11), with accuracy ranging between -15% to +20%.

Table 1: Anode Plant Capital Costs

Anode Plant	
Preliminary, General Earthworks and Terracing	$3M
Civils, Architectural and Fencing	$5M
Structural Steel	$22M
Electrical and Fire Suppression	$2M
Water and Sewage Management	$1M
Bulk Power Infrastructure and Prefabricated Buildings	$8M
CSPG Processing Circuit	$30M
Indirect Costs	$4M
Escalation	$5M
Contingency	$6M
Anode Total Capital Costs	$86M

Note I: Numbers may not add due to rounding;

Note II: All monetary figures presented are expressed in US dollars; and

Note III: These above-mentioned results should not be relied upon for investment decisions. The Technical Study is not a technical report for the purposes of National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("**NI 43-101**") and is limited to a techno-economical evaluation of the Anode Plant.

Table 2: Anode Plant Operating Costs

Operating Costs in US$ per tonne CSPG	
Power	**$466**
Water	**$59**
Reagent	**$1,149**
Tailings (Fines)	**$15**
Land	**$182**
Labour	**$24**
Maintenance	**$85**
Laboratory	**$68**
Miscellaneous	**$14**
Sustaining Capital	**$98**
Direct Operating Costs	**$2,160**
Feed and Transport	**$1,008**
All-In Operating Costs	**$3,168**

Note I: Numbers may not add due to rounding;

Note II: All monetary figures presented are expressed in US dollars; and

Note III: These above-mentioned results should not be relied upon for investment decisions. The Technical Study is not a technical report for the purposes of NI 43-101 and is limited to a techno-economical evaluation of the Anode Plant.

Economic Analysis

Current consensus long term CSPG pricing is US$8,300 per tonne for the proposed product mix (SG18 and SG8). The Company expects a 9-month detailed engineering and design period followed by a 15-month construction and commissioning period, targeting first production H2 2027.

Table 3: Economic Analysis

Key Financial Metrics	
Capital Costs	**$86M**
Operating Costs	**$3,168 / t**
Average Sales Price	**$8,300 / t**
Target Production (All Products)	**26ktpa**
Construction Time	**15 months**

Note: The capital and operational costs are based on the actual costs of the Technical Partner's plant, adjusted for costs associated with logistics and operation in Morocco based on fiscal 2025 cost assumptions. There can be no assurance that costs incurred during the future operation of the Anode Plant will not be materially different than the cost estimates provided in this table, which are based on fiscal 2025 cost assumptions.

Next Steps

The Company has commenced the environmental impact assessment ("**EIA**") which is expected to be completed in H1 2026. The EIA is required to obtain the various required construction permits which Falcon is applying for in parallel with the EIA.

In parallel with the EIA, the Company will work on the detailed engineering of the Super Building, Anode Plant flow sheet and ancillary infrastructure.

Construction of the pilot plant (the "**Pilot Plant**") at Jorf Lasfar, near Casablanca, Morocco remains on track for completion in Q4 2025 with availability of first CSPG samples for customer testing expected as early Q4 2025. These samples are instrumental in securing long-term offtake agreements. Testing has commenced with several potential customers and preliminary feedback on the sample quality is expected in Q4 2025.

Falcon is committed to building and operating the Anode Plant and Pilot Plant in compliance with the highest international standards, ensuring the highest levels of safety, environmental sustainability, and social responsibility.

ABOUT ANZAPLAN

Anzaplan specializes in process design and engineering services for graphite beneficiation projects. Anzaplan offers advanced graphite evaluation services for high value applications including strongly growing markets such as anode materials in lithium-ion batteries. Starting with the initial characterization of the graphite ore through development of a beneficiation process to obtain a high-quality flake graphite concentrate, shaping and purification into battery grade spherical graphite, characterization of electrochemical performance and testing of lithium-ion cells.

ABOUT FALCON ENERGY MATERIALS PLC

Falcon Energy Materials (TSX-V: FLCN**, OTCQB:** FLCNF**)** is aiming to be the premier provider of natural Coated Spheronized Purified Graphite, a critical component for energy storage solutions. As a dedicated chemical refiner of natural graphite concentrate, Falcon is working diligently towards the development of a state-of-the-art 25 ktpa CSPG production facility in Morocco.

Strategically partnered with leading Chinese technology firms and Tier One Moroccan partners, Falcon benefits from advanced technological expertise, access to high-quality raw materials and chemicals, and a prime geographical location—factors that will enable it to deliver consistent, high-quality supply to global markets.

With a clear focus on sustainable growth and innovation, Falcon aims to become the go-to producer of natural CSPG, supporting widespread adoption in energy storage and other emerging industries.

For additional information, please visit Falcon's website at www.falconem.net

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This press release contains "forward-looking information" within the meaning of Canadian securities legislation and other statements that are not historical facts. Forward-looking statements are included to provide information about management's current expectations and plans that allow investors and others to have a better understanding of the Company's business plans and financial performance and condition.

All information contained herein that is not clearly historical in nature may constitute forward-looking information. Generally, such forward-looking information can be identified by the use of forward-looking terminology such as "confirm", "become", "target", "estimate", "average", "vision", "approach", "path to", "moving", "establish", "enable", "contemplate", "optimize", "project", "long term", "expect", "apply", "work on", "on track", "potential", "committed to", "aim", "working towards", "focus", or variations of such words and phrases or state that certain actions, events or results "may", "could", "will", "would" or "might". Specific forward-looking statements in this press release include, but are not limited to, statements and information with respect to: (1) the confirmation of the robust economics

confirmed in the Anode Plant Technical Study; (2) the first production targeted in H2 2027; (3) Falcon's vision to become a low-cost producer of CSPG at industrial scale; (4) the target annual production of 26,000 tonnes of CSPG and 19,000 tonnes of fines; (5) the initial capital costs, including contingency, of US$86 million; (6) the annual operating cost of US$3,168 per tonne of CSPG; (6) Falcon's vision as validated by the Technical Study; (7) Falcon's approach being the most credible path to producing high-quality, low-cost CSPG at industrial scale; (8) Falcon's intention to deliver essential anode materials to Western manufacturers and end-users through a reliable, compliant and qualified source; (9) the proven design, procurement and supply chain expertise from the Technical Partner's plant in China being instrumental in establishing a highly competitive facility in Morocco; (10) the establishment of a highly competitive facility in Morocco; (11) the partnership with the Technical Partner enabling Falcon to leverage established technology, procurement chains and learnings from recent process efficiencies; (12) Falcon's ability to deliver high-quality anode material at scale and competitive costs to the rapidly growing European and North American markets; (13) the expected growth of the European and North American Markets; (14) the economic viability of the CSPG facility in Morocco; (15) Falcon's Anode Plant design, including the design of the Spheroidization Plant using the latest processes to shape graphite flakes into spheres, increasing surface area and energy density, to produce SG, the Purification Plant using hydrofluoric acid alongside hydrochloric and nitric acids to remove impurities, producing >99.95% SPG, and the Coating Plant applying an amorphous carbon (pitch tar) coating on SPG to enhance energy density and increase battery safety and longevity, producing CSPG; (16) Falcon benefiting from access to key port and energy infrastructure by locating the Anode Plant at Jorf Lasfar; (17) Falcon benefiting from, or being eligible under, existing or future free trade agreements with the United States and the European Union; (18) Falcon constructing one single building and its construction enabling Falcon to optimize the Anode Plant footprint and operational efficiencies; (19) the continued relative abundance and availability of graphite feedstock in the market; (20) the spheroidization plant achieving the overall yield of 60%, or 28,000tpa of SG; (21) the purification plant increasing SG purity from 95% to 99.95%; (22) the estimated capital and operating costs for the project as presented in Table 2 and 3; (23) the CSPG pricing of US$8,300 per tonne for the proposed product mix of SG18 and SG8; (24) Falcon's expectation of a 9-month detailed engineering and design period followed by a 15-month construction and commissioning period; (25) first production targeted in H2 2027; (26) the economic analysis as presented in Table 5; (27) Falcon's expected timeline for completion of the EIA in H1 2026; (28) Falcon obtaining the various construction permits in parallel with the EIA; (29) the construction of the Pilot Plant being on track for completion in Q4 2025; (30) the availability of first CSPG samples for customer testing in Q4 2025; and (31) factors enabling Falcon's strategic partnership with leading Chinese technology firms and Tier One Moroccan partners, being instrumental to access advanced technological expertise, high-quality raw materials and chemicals, and a prime geographical location.

Forward-looking information is based upon certain assumptions and other important factors and assumptions subject to significant business, geological, economic and competitive uncertainties and contingencies that, if untrue, could cause the actual results, performance or achievements of the Company to be materially different from future results, performance or achievements expressed or implied by such information or statements. There can be no assurance that such information or statements will prove to be accurate. Key assumptions upon which the Company's forward-looking information is based include, without limitation, (1) the Company's capacity to execute on its strategic and operational plans, including its ability to develop the Pilot Plant and Anode Plant on the anticipated timeline and budget; (2) stable political, social, and legal conditions in Morocco and Republic of Guinea and the absence of significant disruptions affecting operations due to civil unrest, regulatory changes, or other external factors; (3) that economic and market conditions, including interest rates, inflation, exchange rates, commodity prices, and applicable trade policies, remain consistent with

current expectations; (4) the ability of Falcon to secure additional financing or strategic investment on favourable terms, if and when needed, to fund projects development; (5) the assumption that no material adverse events will occur that prevent Falcon from achieving its objective of becoming a fully integrated supplier of battery anode materials; (6) the continuation and effectiveness of the strategic partnerships currently in place between Falcon and its industrial partners; (7) sector-specific demand will continue to grow in line with current forecasts; and (8) the capital and operational costs of the Pilot Plant and Anode Plant.

Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: (i) volatile stock price; (ii) the general global markets and economic conditions; (iii) the possibility of write-downs and impairments; (iv) the risk associated with exploration, development and operations of mineral deposits and mine plans for the Company's mining operations; (v) the risk associated with establishing title to mineral properties and assets including permitting, development, operations and production from the Company's operations being consistent with expectations and projections; (vi) there being no significant disruptions affecting the operations of the Company whether due to artisanal miners, access to water, extreme weather events and other or related natural disasters, labour disruptions, supply disruptions, power disruptions, damage to equipment or otherwise; (vii) asset impairment (or reversal) potential, being consistent with the Company's current expectations; (viii) the Government of Republic of Guinea's ability to revoke the Lola Graphite Project exploitation permit; and (ix) the Company's ability to defend the Company's rights and investment in the Lola Graphite Project. In addition, readers are directed to carefully review the detailed risks and uncertainties described or referred to in the section entitled "Risk and Uncertainties" in the Company's management's discussion and analysis for the year ended December 31, 2024, as updated from time to time in the Company's interim management's discussion and analysis for its quarterly financial periods, each of which is filed on SEDAR+ at www.sedarplus.ca.

Although the Company believes its expectations are based upon reasonable assumptions and has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such forward-looking information. Such forward-looking information has been provided for the purpose of assisting investors in understanding the Company's business, operations and exploration plans and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information.

Forward-looking information is given as of the date of this press release, and the Company does not undertake to update such forward-looking information except in accordance with applicable securities laws. The Company qualifies all of its forward-looking statements by these cautionary statements.