

TSX.V: SR

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# Strategic Resources Announces Robust Economic Results from its Iron Pellet Plant Study

# Highlights:

- A robust economic project with an after-tax IRR of 25%.
- Ability to generate US\$173 million of annual EBITDA assuming a US\$70/t DR grade pellet premium.
- An initial capital cost of US\$470 million to build the project (AACE International Class 5 Estimate).
- A 25-month construction timeline with commissioning starting in month-27.
- Pelletizing conversion costs of \$16.31 per tonne of pellets.

Montreal, Québec – Strategic Resources Inc. (TSXV:SR) (the "Company" or "Strategic") is pleased to announce results from the Pre-feasibility Class 5 level engineering study (the "Study") conducted by BBA on its 4 million tonne per annum merchant pelletizer project (the "Pelletizer" or "Project"). The Project will be located on the Company's existing leased area at the Federal Port of Saguenay, where the Provincial and Federal Governments are currently building a C\$111 million multi-user conveyor system, which the Project would utilize. The Project will focus on direct reduction ("DR") grade pellet feed that will be used in the green steel industry and is the only greenfield advanced development project of its kind in Canada.

Strategic intends to work with its major shareholders, including Investissement Québec, to decide on the best strategy to fund this Project. Strategic is continuing dialogue with iron concentrate producers, iron concentrate traders and financing groups in order to secure iron ore concentrate feed and potential financing partnerships.

**Sean Cleary, CEO commented:** "Market fundamentals are extremely positive and the direct reduction grade pellet market premiums have been strong over the last number of years. Management and our large shareholders believe this approach delivers higher returns with less capital. The Port Saguenay location offers Strategic a significant advantage versus other pelletizing operations in North America, given its access to natural gas and ability to produce greener iron products."

# **Project Description**

The Project is an iron ore pellet project (DR Grade) near available infrastructure, situated on the Port of Saguenay Industrial Development site, in the Province of Québec. The Study evaluated the construction of the pellet processing facilities, including the storage of the feed material and final products and all related infrastructure to produce DR grade pellets from iron ore concentrates.

The Project is expected to benefit from several competitive advantages including:

- Location near available infrastructure including natural gas and hydro-electric power.
- The Port of Saguenay is an all-year operational deep-sea port with access to the Great Lakes and the Atlantic.
- A supportive Provincial government which identified high-purity iron within their critical minerals plan.
- Existing Permits for the establishment of a metallurgical facility which includes a pellet operation.

The Project consists of a pelletizer at the Port Saguenay site to process iron ore concentrate into DR grade pellets in order to supply the growing global electric arc furnace steel production market. The process flow sheet includes the multi-user conveyor system, iron ore concentrate and pellet receiving, handling and storage areas and a 4 million tonne per annum Metso pelletizing plant.



# **Study Summary**

The economic evaluation of the Pelletizer was performed using a discounted cash flow model on a pre-tax and post-tax basis. The capital and operating cost estimates were developed based on using Q1 2024 costs and assume a constant cost basis throughout the cash flow model. The Internal Rate of Return ("IRR") on total investment was calculated based on 100% equity financing. The net present values ("NPV") were calculated with a discount rate of 8% and an assumed 50-year project life.

**Table 1: Study Assumptions** 

Key Assumption Summary	Units	
Average annual production	Million dmt	4.0
Market Assumptions		
Iron Ore CFR China 62%	US\$/dmt	\$100
DR Grade Premium (65%-62%)	US\$/dmt	\$35
1% Fe Differential	US\$/dmt	\$2
Direct Reduction Pellet Premium	US\$/dmt	\$70
Freight Canada – Europe	Us\$/dmt	\$24
Freight Canada Port to Port of Saguenay	US\$/dmt	\$8
USD:CAD Exchange Rate	Ratio	1.36
Capital Cost		
Construction Period	Months	25
CAPEX	U\$M	\$470
Operating Cost Per Tonne Sold		
Total Pellet Conversion Cost	US\$/dmt	\$16
Total Cash Cost (includes iron concentrate purchase)	US\$/dmt	\$156



#### Iron Ore and DR Pellet Pricing

The Project is expected to produce a DR grade pellet. There is an increased focus on reducing global greenhouse gas emissions in the steelmaking processes as the steel industry experiences a structural shift in its production methods. This dynamic is expected to create additional demand for higher-purity iron ore products, as the industry transitions towards using alternative technologies to produce liquid iron, such as the use of Direct Reduced Iron ("DRI") in Electric Arc Furnaces instead of Blast Furnaces ("BF") and Basic Oxygen Furnaces.

The market is expected to experience significant growth in pellet demand in the coming years and forecast global pellet demand could reach +180 million tonnes by 2027 (Source: Macquarie). Notably, almost all new pellet demand will be coming from the DRI market segment. This highlights the need for investment in new pellet production to meet the growing demand for the DRI market. With the planned DRI expansion and reduction in BF output, it points to strong market fundamentals for agglomerated iron ore (BF and DR pellets) this decade. Higher grade premiums and Value in Use ("VIU") index prices should be realized due to the potential pellet deficits.

The Study's Base Case pricing is based on recent market pricing and does not account for potential stronger demand by the time the Pelletizer is completed.

**Table 2: Study Economic Results** 

	-30%	-15%	Base Case	+15%	+30%
Assumed DR Pellet Premium (US\$/t)	49.00	59.50	70.00	80.50	91.00
Annual Run Rate EBITDA Per Year (US\$M)	93	133	173	212	252
After-tax Net Present Value (8%) (US\$M)	331	645	957	1,269	1,580
After-tax IRR (%)	14%	20%	25%	29%	34%

**Table 3: Economic Analysis Sensitivity to Operating and Capital Costs** 

	-30%	-15%	Base Case	+15%	+30%
Capital Cost Sensitivity					
After-tax NPV (8%)	1,072	1,014	957	899	842
IRR (%)	33%	28%	25%	22%	20%
<b>Operating Cost Sensitivity</b>					
Annual Run Rate EBITDA (US\$M)	193	183	173	163	153
After-tax NPV (8%)	1,116	1,036	957	877	798
IRR (%)	27%	26%	25%	23%	22%

# **Initial Capital Cost Description and Build-up**

The Pelletizer scope and costs are based on an indicative "order of magnitude" estimate provided by Metso for the design, supply, delivery, and installation of a 4 million tpa pellet plant. The initial capital cost is -30/+50% AACE - International Class 5. The Metso proposal represents 57% of the total project capital requirement. BBA has performed an independent assessment of the Pelletizer costs based on internal data and adjusted the Metso proposal to allow for winterization, civil works, and growth. The contingency associated with initial capital costs has been set at \$42 million and is made up of 20% on direct and indirect costs excluding the pellet plant, plus 5% on the pellet plant cost.



**Table 4: Initial Capital Cost Summary** 

Item	US\$M
Pellet Plant (1)	\$294
Storage Stockpile Material Handling	\$60
Electrical General Systems, Automation and Controls	\$17
Administration, Ancillary Facilities & General	\$8
Subtotal Direct Costs	\$380
Owner's Costs	\$16
EPCM Services	\$13
Construction Tempo Facilities and Site Maintenance	\$11
Third Party Professional Services	\$2
Commissioning Services	\$2
Common Distributables (freight, spares, initial fill, tech assistance)	\$5
Subtotal Indirect Costs	\$49
Contingency (1)	\$42
Total Costs	\$470
Annual Run Rate Sustaining Capital	\$3

<sup>(1)</sup> The Metso estimate is commercially identified as "indicative Pricing" but inclusive of contingency which is not reflected in the contingency line in Table 4.

**Table 5: Pellet Conversion Operating Costs** 

Description	Total Annual Cost (US\$M)	US\$/tonne
Raw Materials & Consumables		
Dolomite	\$6.6	\$1.62
Limestone	\$7.2	\$1.79
Carbon	\$10.1	\$2.49
Bentonite	\$8.1	\$1.99
Subtotal	\$31.9	\$7.90
Utilities		
Gas	\$10.3	\$2.56
Electricity	\$7.2	\$1.78
Electricity for General	\$1.3	\$0.31
Water (Process)	\$0.02	\$0.00
Water - Potable & Other	\$0.004	\$0.00
Subtotal	\$18.8	\$4.65
Other Costs		
Direct Labour	\$5.3	\$1.30
Maintenance	\$7.0	\$1.73
General services/mobile equipment	\$2.0	\$0.49
Laboratory Services	\$0.5	\$0.12
Property lease	\$0.5	\$0.11
Subtotal	\$15.2	\$3.76
Total Operating Cost Per Year		
Variable Cost	\$53.2	\$13.17
Fixed Cost	\$12.7	\$3.14
Total Cost	\$65.9	\$16.31



# **Project Timeline**

The Project benefits from the permitting work completed and has an estimated construction period of approximately 25 months following a final investment decision. Initial commission would occur in month 27 and commercial production would occur in month 30.

Strategic will continue to finalize the requested information from the Provincial Government as part of the application to amend its existing environmental authorization for the project. The timeline for the completion of the amendment once submitted is approximately 6 months.

### **Next Steps and Recommendations**

To progress the project development plan, Strategic will consider various steps which may include process testwork, confirmation of iron concentrate and additives supply, development of the engineering including the material handling systems and certain feasibility, basic and detailed levels of engineering for the plant, certain site geotechnical and environmental work, application to modify the existing environmental authorization, details on the contract strategy, finalize Metso scope and contract, finalize agreements on services with the port authority, natural gas supply, electricity supply, additional land leasing for the storage areas and final construction and ramp up schedules, among other activities related to the project development.

#### **About BBA**

BBA is a privately-owned Canadian consulting firm serving clients for over 40 years. BBA offers integrated services in multidisciplinary engineering, field services, environment, decarbonisation and asset management. BBA has a large breadth of Québec iron credentials, including but not limited to work for ArcelorMittal, Champion Iron and the Iron Ore Company of Canada (IOC/Rio Tinto).

#### Notes:

The Project as described above is an independent economic scenario from the BlackRock National Instrument 43-101 Feasibility Study ("FS"), which was effective on November 18, 2022. The Project will not exploit any of the Company's own mineral reserves. It is possible that the full BlackRock Project as was described in the FS could benefit from the Project infrastructure in the future, but the potential benefits are unknown at this time.

#### **Corporate Update**

Kurt Wasserman from Orion Mine Finance has resigned from the board of directors. He will remain as a Board Observer. Victor Flores, Orion Mine Finance's former Board Observer has taken Mr. Wasserman's board of director's position.

# **About Strategic Resources**

Strategic Resources Inc. (TSXV:SR) is a critical mineral exploration and development company focused on high-purity iron and vanadium projects in Canada and Finland. The Company is developing its flagship BlackRock Project, which is a fully permitted and ready to construct mine, concentrator and metallurgical facility located at a seaport in Québec with full access to the St. Lawrence Seaway. The Company's Head Office is in Montreal, Québec.

Further details are available on the Company's website at <a href="https://strategic-res.com/">https://strategic-res.com/</a>. To follow future news releases, please sign up at <a href="https://strategic-res.com/contact/">https://strategic-res.com/contact/</a>.

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#### STRATEGIC RESOURCES INC.

Signed: "Sean Cleary"
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Although management of the Company believes that the assumptions made and the expectations represented by all forward-looking statements or information are reasonable, there can be no assurance that a forward-looking statement or information herein will prove to be accurate. Forward-looking statements and information by their nature are based on assumptions and involve known and unknown risks, uncertainties and other factors which may cause the Company's actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. These factors include, but are not limited to: risks associated with the business of the Company; business and economic conditions in the mining industry generally; the supply and demand for labour and other project inputs; changes in commodity prices; changes in interest and currency exchange rates; risks relating to inaccurate geological and engineering assumptions (including with respect to the tonnage, grade and recoverability of reserves and resources); risks relating to oundicipated operational difficulties (including failure of equipment or processes to operate in accordance with specifications or expectations, cost escalation, unavailability of materials and equipment, government action or delays in the receipt of government approvals, industrial disturbances or other job action, and unanticipated events related to health, safety and environmental matters); risks relating to adverse weather conditions; political risk and social unrest; changes in general economic conditions or conditions in the financial markets; and other risk factors as detailed from time to time in the Company's continuous disclosure documents filed with Canadian securities administrators. Strategic does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

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