MONGOLIA’S FIRST LITHIUM BRINE EXPLORER & DEVELOPER

TSX-V: ION
FRA: 5YB
OTCQB: IONGF

January 2023
This presentation includes certain statements that may be deemed “forward looking statements”. All statements in this presentation, other than statements of historical facts, that address events or developments that Ion Energy Ltd. (the “Company”) expects to occur, are forward looking statements. Forward looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential" and similar expressions, or that events or conditions "will", "would", "may", "could" or "should" occur. Although the Company believes the expectations expressed in such forward looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward looking statements. Factors that could cause the actual results to differ materially from those in forward looking statements include market prices, exploitation and exploration successes, and continued availability of capital and financing, and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward looking statements. Forward looking statements are based on the beliefs, estimates and opinions of the Company’s management on the date the statements are made. Except as required by securities laws, the Company undertakes no obligation to update these forward looking statements in the event that management’s beliefs, estimates or opinions, or other factors, should change.

The information provided in this presentation is not intended to be a comprehensive review of all matters and developments concerning the Company and should be read in conjunction with the other disclosure documents of the Company. The information contained herein is not a substitute for detailed investigation and analysis. No securities commission or regulatory authority has reviewed the accuracy or adequacy of the information presented.

The technical information in this presentation has been approved by Khurel Lamzav, P. Geo of the Company and a Qualified Person as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects.
MBA from Duke University and a CPA, CA and graduated with an international experience (asset management, risk analysis and program governance). Advisor to ATMA Capital Markets Ltd and Steppe Gold TSX:STGO. BSc from University of Western Ontario.

Steppe Gold TSX:STGO & Aranjin Resources. 13+ years of international experience (asset management, risk analysis and program governance). Advisor to ATMA Capital Markets Ltd and Steppe Gold TSX:STGO. BSc from University of Western Ontario.

Director of Antlier Hill Mining Ltd, Spirit Banner II Capital Corp. and CEO & Director of Aranjin Resources. 13+ years of international experience (asset management, risk analysis and program governance). Advisor to ATMA Capital Markets Ltd and Steppe Gold TSX:STGO. BSc from University of Western Ontario.

Chairman of the Board

18+ years of extensive commercial and business development experience in Asia, including Mongolia and China, with Noble Resources Ltd and SouthGobi Resources Ltd. BA (Hon) from Wilfrid Laurier University, in Waterloo, Canada.

A Mongolian Citizen that serves as CEO and Director of Steppe Gold TSX:STGO. Mr. Tumur-Ochir is an advisor to the Ministry of Mining and Heavy Industry, Holds a bachelor’s degree in business administration and graduate certificates in international business and marketing from Australia and Singapore.

EVP and Director of Steppe Gold TSX:STGO, Director of Antlier Hill Mining Ltd, CEO of Spirit Banner Capital Corp, Founder of ATMA and ATMACORP with experience in investment banking at Dundee, MBA from Goodman Institute of Investment Management at John Molson School of Business.

Over 30 years of Mongolian mineral experience for multi-nationals. Credited for having discovered several prospective gold, molybdenum and copper deposits, including the Olon Qvoot multimillion ounce gold deposit.

Brings more than 30 years of international business experience in Management Consulting and Finance. His previous roles include Consulting Partner at a Big 4 firm, CFO of a TSX-listed company and several regional finance leadership roles with large U.S. and Canadian multinationals in Canada, the U.S., South America and Asia. Is a CPA, CA and graduated with an MBA from Duke University and a B. Comm from Queen’s University.

Served as inaugural Chair of Lithium Americas and secured its initial strategic investments from Mitsubishi and Magna International. Former Director of Neo Lithium Corp. Currently, Paul is a partner with Fasken Martineau DuMoulin LLP, where he is head of Latin America for the Global Mining Group, and is also a member of the TSX-V’s National Advisory Committee. Holds an LLM from Osgoode Hall Law School in Securities Law and an LLB from the University of Windsor.

President of Hains Engineering Company Limited and Principal of Hains Technology Associates. An industrial minerals exploration and economic geologist with +30 years of experience in exploration, development, use and analysis of industrial minerals properties and materials. Has a particular focus on critical and energy related minerals such as lithium. Has written numerous JORC reports, including for numerous NI 43-101, SEC and JORC reports, including for Lithium Americas, Albemarle and NeoLithium.

A PhD lithium hydrogeologist with extensive resource exploration experience in Mongolia. Served with Mongolia’s Department of Urban Development and Investment, as Chief Geologist and then as CEO at Geolink LLC. Has spent many years researching laboratory analysis methods for lithium at the Akita University in Japan. A Professional Geologist accredited by the Mongolian Professional Institute of Geology and Mining, and a Professional Engineer accredited by the Mongolian Ministry of Mineral Resources and Energy.

An entrepreneur whose expertise spans across lithium mining development, battery supply chain developments, energy storage, renewable energy, and electric vehicles. He is President of Marbex LLC, was formerly the CTO and SVP of Lithium Americas Corp, and is an alum of Tesla Inc., Ambri Inc. (MIT start-up), Lux Research Inc., and Siemens Wind Power. He was educated at the University of Toronto and Oxford University.
In 2017, our co-founders, Ali Haji and Matthew Wood, identified an opportunity for lithium exploration and development while on a trip to Mongolia for another mining entity.

They recognized that our world was on the brink of a Green Revolution and that the move away from fossil fuels would create unprecedented demand for battery metals, including lithium.

Ali and Matthew started discussions with the Mongolian government about the potential for lithium in-country – and the vision for ION Energy was born!
THE WORLD IS GOING ELECTRIC

ION Energy is ready for the 3rd wave of the clean energy revolution & the increased Lithium demand
MONGOLIA TODAY

✓ Untapped and unlimited potential for battery metals
✓ Mongolia’s economic growth is expected to accelerate to above six percent in 2023-2024
✓ Geopolitics makes Mongolia critical to China's Belt & Road Initiative, and to Superpowers’ pipeline initiatives with Mongolia gaining revenue
✓ Mongolia’s New Revival Policy:
  • Investor friendly: increased access to mining licences;
  • Borders open and increased rail infrastructure coming online by 2023; and
  • Growing Technology Hub
✓ Evidence of Mongolia's value proposition: Rio Tinto $5B commitment & Zijin/Xanadu strategic partnership
Management successfully operating in Mongolia for over a decade, with a combined 150+ years of mining and exploration experience.

Seasoned Mongolian nationals on the team, with commitment to best-in-class exploration practices, developing local young talent, and strong community engagement with quarterly local meetings.

Trusted partner with all levels of government, and the Mongolian University of Science and Technology.

**Hunnu Coal**
- AUD $20M
- IPO 2010

**Hunnu Coal Exit**
- AUD $500M
- Cash 2012

**ION ENERGY**
- CAD $25M
- IPO 2018

**Cad $2.7M**
- IPO 2020
The largest exploration licence in Mongolia:

ION ENERGY'S BAAVHAI UUL PROJECT

+81,000 hectare (almost 200,000 acre) highly-prospective site
The largest exploration licence ever granted in Mongolia:

**BAAVHAI UUL PROJECT**

**PRE-ACQUISITION RESULTS**
- All holes drilled contain **significant** levels of Lithium
- Average grade 426 ppm Lithium
- Maximum grade 811 ppm Lithium
- High evaporation and low precipitation, endorheic basin, no outflow to external bodies of water

**GEOGRAPHICAL PROFILE**
- Low potassium and magnesium ratios: favourable for large crystal formation at license altitude and temperature
- Aquifers 20m below surface: Cretaceous volcanic and sedimentary rocks are the most suitable aquifer for the enrichment of lithium
- Brine vs hard rock sources = lower production costs
- Gobi Desert: arid environment with high evaporation rates
- 24km from the Chinese border
Lithium Brines Encountered;  
Initial drilling results are highly encouraging;  
New Lithium Discovery Highlighted: *White Wolf Prospect*;  
A total of 222 auger drill holes have been completed for 1304.5 metres;  
Drill hole AU-17 returned results up to 1,502ppm Lithium; and  
A new Copper and Nickel 'Victory' discovery.
Solidifying our commitment to the world’s Green Revolution, as Mongolia’s leading lithium explorer & developer:

ION ENERGY'S
URGAKH NARAN:
RISING SUN PROJECT

Over 29,000 hectares (+70,000 acres) of highly prospective lithium terrain
URGAKH NARAN LITHIUM BRINE PROJECT

SIGNIFICANT BRINE DISCOVERY

- Situated in the arid and infrastructure rich region of the South Gobi Desert
- The brine sample was collected at surface from a shallow pool and assayed 918 mg/L Lithium.
- The highest grade lithium brine known to have ever been collected in Mongolia
MAIDEN EXPLORATION PROGRAM COMPLETED

- Successfully completed an 82 line-km TEM survey.
- All lines show resistivity beginning at a highly encouraging 0.2 Ohm, with a maximum resistivity of 500 Ohm, drawing similarities to assets in the Lithium Triangle.

Figure 1: Low Resistivity Zone Illustrated Against Resistivity Sections
SENIOR TECHNICAL TEAM CONDUCTS STRATEGIC SITE VISITS - APRIL 2022

...The geology and morphology of the property is highly prospective, with some parallels to Nevada playa basins and South American salars. It was heartening to see some artisanal salt harvesting in the surface evaporite layers, contained in the low-lying dry ponds and lakes: a good indication of brine presence.

Dr. Mark King, PhD, P.Geo”
AUGUST 2022 SITE UPDATE

- Completed an additional 16 line-km TEM survey, that intersects the previously announced 82 line-km completed
- Results indicate strong conductivity and low resistivity that is typical of a significant brine aquifer
- 22.7 billion cubic meter low resistivity aquifer volume measured

Figure 2: Low Resistivity Zone shown with lines 1 through 9.

Figure 3: Low resistivity zone volume at Urgakh Naran.
Core samples collected at Urgakh Naran

Diamond Core Drill Rig onsite at Urgakh Naran
OCTOBER 2022 SITE UPDATE

- Site visit concluded in September with a second visit planned for October; inferred resource calculation ongoing.
- Drilling of two lithological diamond core holes has been completed at Urgakh Naran with a total depth of 702m, third hole currently at 185m;
- Drilling of one water well down to 300m has been completed using a tricone bit, slotted casings, with a diameter of 6 inches;
- Total cumulated gravelite, porous and permeable zones starting at 184m seen at UNDH-02 show thickness of at least 80m.

Figure 1: Drill location map at Urgakh Naran, Dorngovi Province.
Diamond core drilling at UNDH-02

Waterwell rig at UNWH-01, Urgakh Naran.
Exploration efforts at UNDH-02
DECEMBER 2022 SITE UPDATE

- Successfully completed the drilling of three lithological diamond core drill holes for a total depth of 954m.
- Notable two metre drill core results include:
  - UNDH-01: 123m at 278ppm lithium from 122m, with maximum lithium reported at 832ppm over 2m;
  - UNDH-02: 100m at 362ppm lithium from 65m, with maximum lithium at 601ppm over 2m; and
  - UNDH-03: 71.4m at 360ppm lithium from 3.6m with maximum lithium at 911ppm over 2m.
- Completed drilling of two hydrological test wells for testing of basin brines. ION's team is now completing its third hydrological test well, with brine sampling to commence across all three wells in the coming months.
WHY ION ENERGY’S MONGOLIAN SITES ARE A GEOGRAPHIC ADVANTAGE

- Low cost and year-round operating environment
- Infrastructure rich location in Mongolia
- 30km by road to Mongolia-China border crossing
- Strong location advantage over South American producers: Mongolia set to become a major player in the lithium sector
The Lithium Market Is Hotter Than Ever and Traders Are Moving In:
Commodity traders are turning their attention to lithium, as surging demand shakes up the way the battery metal is bought and sold.

~ Bloomberg, October 2022 ~
LITHIUM & COPPER: A Battery Metals Strategic Alliance

FEBRUARY 2022:
ION Energy Enters into a JV Agreement with Aranjin Resources

- Aranjin is an emerging copper explorer in Mongolia;
- Highly-encouraging results at Aranjin’s Sharga asset;
- Strong indications at our flagship Baavhai Uul show significant Copper and Nickel anomalies;
- ION's exploration acreage has been increased across mineral-rich regions of Mongolia;
- Alliance leverages the teams' technical expertise, and our CEO & Board's strong track record in Mongolia.

Auger program at Baavhai Uul Copper Nickel Discovery
**ION ENERGY LTD**

**OTCQB: IONGF, TSXV: ION**

| BASIC COMMON SHARES OUTSTANDING | 60,468,534 |
| WARRANTS @70C (EXP. APR 13, 2024) | 11,500,000 |
| OPTIONS @32C (EXP. OCT 21, 2025) | 3,000,000 |
| OPTIONS @55C (EXP. FEB 3, 2023) | 685,000 |
| FULLY DILUTED SHARES OUTSTANDING | 71,525,671 |
| SHARE PRICE (JANUARY 4) | USD $0.15, CAD $0.23 |
| MARKET CAPITALIZATION (C$) | USD $9.1 M, CAD $13.6 M |

**OWNERSHIP**

Management & Inside Ownership*
- Mongolian Investors
- Family Offices
- Delbrook Capital
- Spartan Funds
- Alphanorth Asset Management
- Maxit Capital

*Insiders and management are escrowed for 24 months/2 years (Aug. 31, 2022)
CEO & Advisors: In-Country Site Visits

Q1 / Q2 2022

- Commenced trading on OTC QB
- Urgakh Naran acquisition
- $5.75 Million Bought Deal Offering: Fully-cashed up for 2 year exploration & acquisitions plan

New Lithium Discovery at Baavhai Uul: White Wolf Prospect

Q3 / Q4 2022

- Inferred resource indication
- Site visit with Partners
- Advancing talks with Strategic Investment Partners
- Early Resource Indication

Q1 2023

- Pre-feasibility study on path to project development
- Measured and Inferred resources

Q2 2023

Q3 / Q4 2023

- Scoping study to confirm viability of the deposits

2021

- JV Agreement with ARJN, an emerging Mongolian copper explorer
- Strengthened team with Regional Director, Asia
- CEO & Advisors: In-Country Site Visits
- Maiden exploration at Urgakh Naran: World Class Brine Discovery 918 mg/L
OUR STRATEGIC ADVANTAGE

Price target $1.12 for TSX-V: ION - May 2022

**Coulloir Capital**

Price target $1.18 for TSX-V: ION - June 2022

**FRC**

Based on comparative analysis of junior lithium companies, a mid-second quartile price-to-book (P/B) ratio of 7.8 indicates a share price target of USD $0.42 per share. - October 2022

**Zacks SCR**

Comparable companies and the implied valuations offer a wide range from C$286 EV/Hectare to C$20,810 EV/Hectare with a median of C$3,715. This compares to ION Energy at C$174 EV/Hectare.

**Stonegate Capital**

Positioning Relative to the Third Largest Salt Flat in the World
## OUR STRATEGIC ADVANTAGE

(all figures in C$M, expect per share information)

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<tr>
<th>Name</th>
<th>Ticker</th>
<th>Price (1)</th>
<th>S/O</th>
<th>Mrkt Cap</th>
<th>EV</th>
<th>Hectares</th>
<th>EV/Hectare</th>
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<td>Standard Lithium Ltd.</td>
<td>TSXV:SLI</td>
<td>$7.22</td>
<td>162.3</td>
<td>$1,167.6</td>
<td>$1,031.0</td>
<td>75,343</td>
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<td>Critical Elements Lithium Corporation</td>
<td>TSXV:CRE</td>
<td>$1.37</td>
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<td>$282.5</td>
<td>$246.6</td>
<td>24,655</td>
<td>$10,000.4</td>
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<td>Lake Resources NL</td>
<td>ASX:LKE</td>
<td>$1.25</td>
<td>1,103.7</td>
<td>$1,603.5</td>
<td>$1,539.9</td>
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<td>Lithium Power International Limited</td>
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<td>Pure Energy Minerals Limited</td>
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<td>$1.22</td>
<td>32.9</td>
<td>$40.1</td>
<td>$39.6</td>
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<td>$124.7</td>
<td>71,900</td>
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<td>Wealth Minerals Ltd.</td>
<td>TSXV:WML</td>
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<td>Bearing Lithium Corp.</td>
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<td>$5,933.5</td>
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<td>International Lithium Corp.</td>
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<td>$24.8</td>
<td>$14.5</td>
<td>31,426</td>
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**Average**

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<td>Ion Energy Ltd.</td>
<td>TSXV:ION</td>
<td>$0.36</td>
<td>60.3</td>
<td>$21.5</td>
<td>$17.5</td>
<td>100,759</td>
<td>$173.6</td>
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**Median**

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INVESTMENT SUMMARY

When you invest in ION Energy, you can count on our team with over 150 years of combined in-country, mining and lithium-specific experience.

Since listing on the TSX Venture Exchange in 2020, we have rapidly forged ahead in following through on our strategic objectives, including a strategic exploration alliance with an emerging copper explorer and a $5.75 million public offering to ensure that we have a fully-funded 2-year exploration & growth strategy.

FULLY FUNDED
We're fully-funded to continue our aggressive growth strategy

STRATEGIC LOCATIONS
Superior geographic locations in Mongolia and promising early results

WE'RE EXPERIENCED
Strong in-country team and proven track record

RISE IN DEMAND
Lithium is a commodity with high global demand

MARGINS
Low cost production profile

INVESTMENT
Well-positioned to create shareholder value
CONTACT US

Contact our Chief Executive Officer, Ali Haji, to discuss your investment.

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