# 

### RE-INVENTING MINING FOR THE ELECTRIFICATION OF EVERYTHING

**Corporate Presentation | January 2024** 

#### Ivanhoe Electric – Compelling Investment Opportunity

- Founded by Executive Chairman, Robert Friedland
- Experienced executive management team
- A combination of advanced technologies, a portfolio of US-focused electric metals assets and a groundbreaking exploration joint venture with Saudi Arabian Mining Company Ma'aden
- Advancing the high-grade underground Santa Cruz Copper Project in Arizona
- Experienced exploration team focused on identifying electric metals deposits
- Well-positioned to benefit from US energy transition and favorable long-term fundamentals for copper

US-Based, Electric Metals Exploration Company with Significant Proprietary Technology Platform

#### **Experienced Executive Management Team**

### 





Robert Friedland Founder, Executive Chairman





Quentin Markin EVP, Business Development and Strategy Execution



Graham Boyd SVP, Exploration



#### Jordan Neeser OC Chief Financial Officer

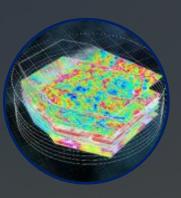
POWER OUTPUT CONTROL UNIT

Glen Kuntz SVP, Mine Development

Cassandra Joseph General Counsel and Corporate Secretary

#### **Proprietary Technology Platforms – Typhoon™, CGI, & VRB**







#### Typhoon™

- Accurate and powerful proprietary geophysical survey technology based on I-Pulse technology
- Successfully used to accelerate the exploration process to lower costs
- Potential to discover deposits otherwise thought to be undetectable

Computational Geosciences Inc. (CGI)

Advanced data analytics, geophysical modeling and artificial intelligence for water, oil and minerals discoveries

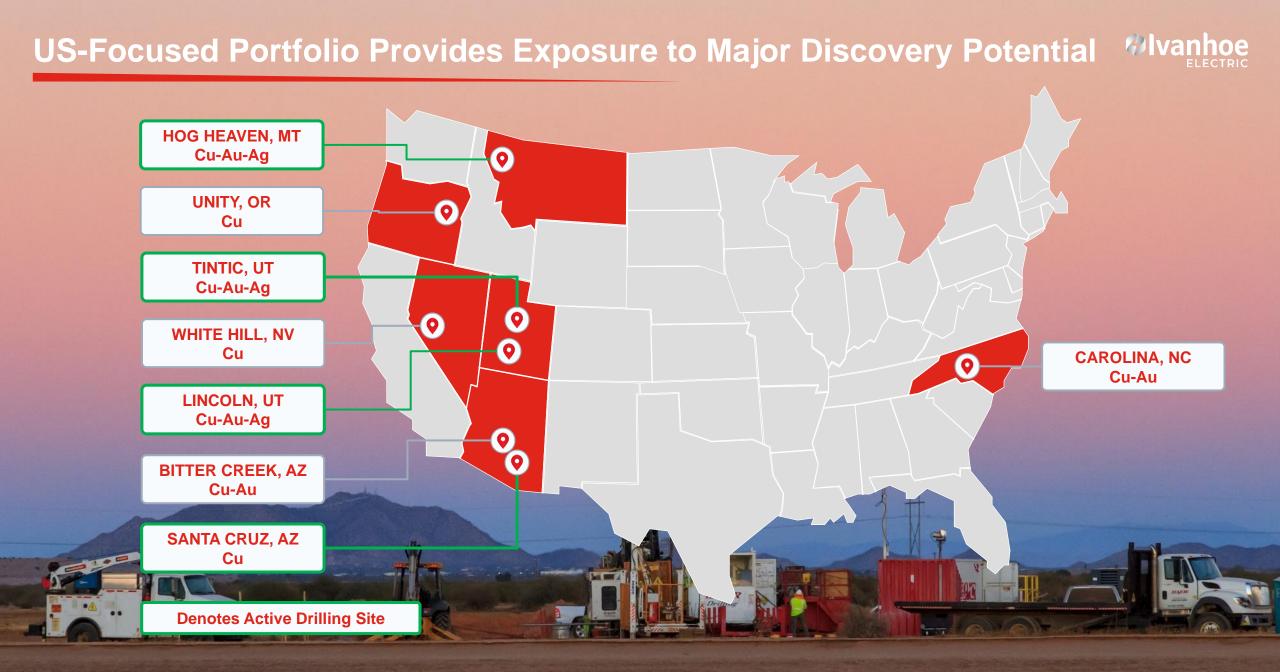
Only product that can process the full spectrum of geophysical datasets produced by the Typhoon<sup>™</sup> system into 3D images

### 

Proven grid-scale proprietary battery technology

Low-cost ion-exchange membrane, long-life electrolyte formulation and innovative flow cell design

Proven commercial-scale product with over 500 MWh installed or in development



#### Santa Cruz Copper Project Located on Private Land, West of Casa Grande, Arizona

Legend Historical Casa Grande **Olvanhoe** IE Land Acquisition Sacaton Mine Municipal **Resource Outline** Airport reviously Acquired Parcels reviously Optioned Parcels IE Mineral Control Historical Mine Airport 23 Local Industry Texaco 44 Rail Lines lighways/Interstates

Frito Lay

387

Lucid Motors

East Ridge

8

Santa

Transmission Lines

Kilometers

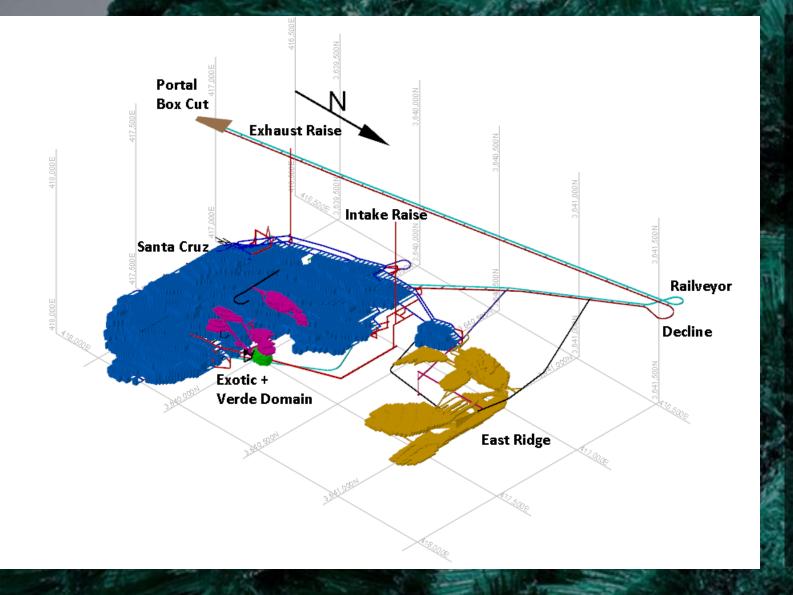
Ølvanhoe

- 5,975 acres of private land encompassing the entire project
- Acquired land includes associated water rights
- Option to acquire all mineral titles contiguous with surface land
- Excellent access to nearby rail, interstate highways and electric transmission lines

#### Highlights of the Santa Cruz Initial Assessment ("IA")

- IA focuses on 5.9 Mt / year underground copper mine with small surface footprint
  - Current study supported exclusively by high-grade exotic, oxide and enriched domains contained in Santa Cruz and East Ridge Deposits
- Estimated copper production of 1.6 Mt over 20-year mine life ("LOM")
  - ~1.0 Mt pure copper cathode via onsite SX/EW
  - ~0.6 Mt copper in concentrate that is 48% copper by weight
- **G** Estimated LOM C1 cash costs of \$1.36/lb Cu
- **G** After-tax NPV<sub>8%</sub> of \$1.32 billion and IRR of 23.0% at flat \$3.80/lb Cu
- IA contemplates 70% renewable energy, resulting in low estimated Scope 1 and 2 emissions of 0.49 t CO<sub>2</sub>e/t Cu produced
- Ivanhoe Electric controls surface land and mineral rights

#### Phased Approach Minimizes Initial Capital Requirements



Twin declines to access highgrade copper mineralization

Olvanhoe

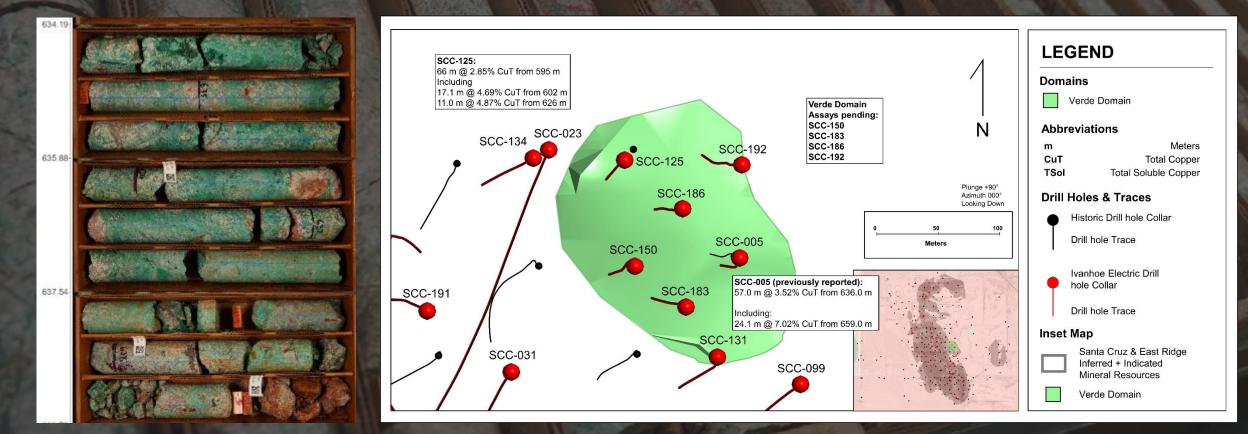
- Generation Each 4.3 km long
- 1.9 km extension in Year 8 to access lower portion
- LOM 105.2 Mt mineralized material mined at 1.58% copper
  - East Ridge: 9.8 Mt at 1.76% copper
  - Santa Cruz: 88.6 Mt at 1.60% copper
  - Santa Cruz Exotic: 1.9 Mt at 2.66% copper
  - 4.9 Mt low-grade (0.56% copper) to access mineralization
- Standard longhole stoping and drift and fill methods with paste backfill for support

## Recent Infill Drilling has Delineated a High-Grade Oxide Copper Domain

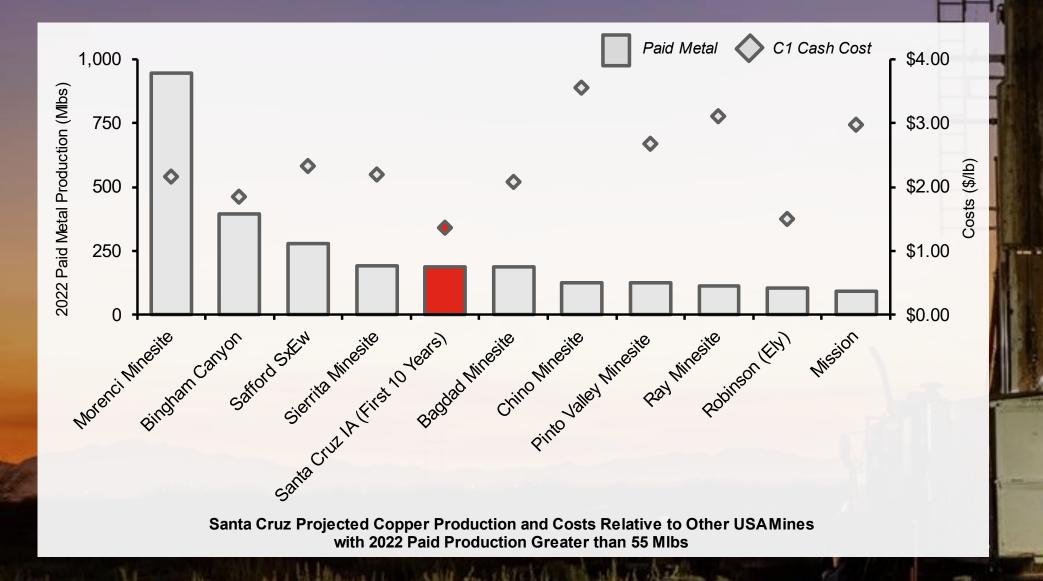
**Olvanhoe** 

The Verde Domain has higher copper grades and lower water flow rates compared to previous modeling within the Initial Assessment

• Provides upside potential to the project economics presented in the IA



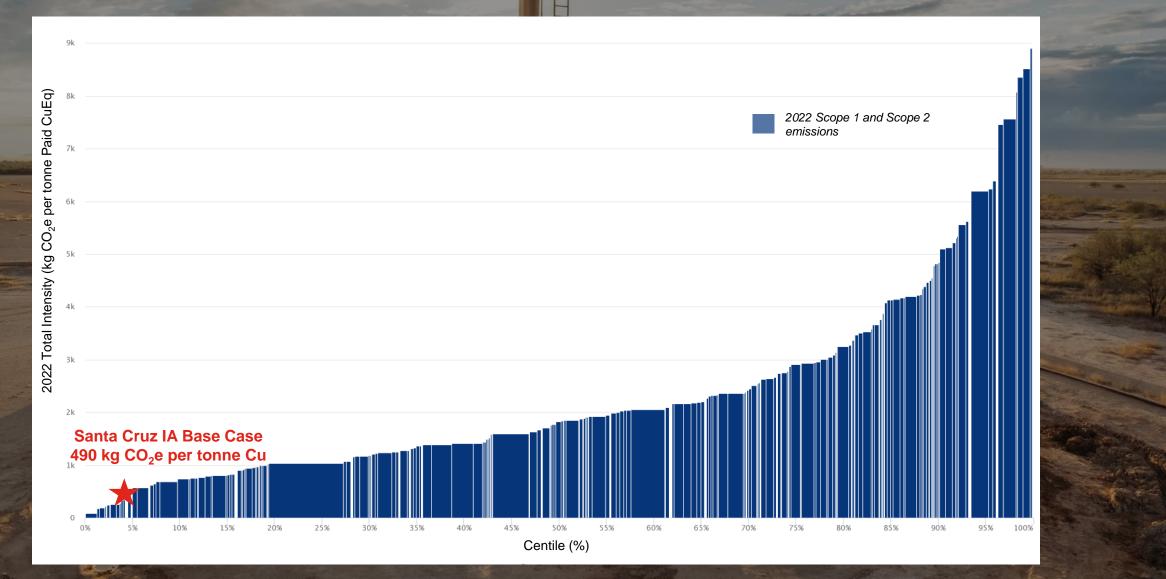
## Santa Cruz IA: Potential to be a Significant Copper Producer in the US Olvanhoe with Low Estimated Operating Costs



10

Source: Wood Mackenzie, 2023 (single year 2022 data shown, the Santa Cruz 2023 IA has not been reviewed by Wood Mackenzie).

## Santa Cruz IA: Base Case 70% Renewable Power to Result in Low Estimated CO<sub>2</sub>e per Tonne Copper – "Clean Copper"



Ivanhoe

11

Source: Wood Mackenzie; 2023 (single year 2022 data shown, the Santa Cruz 2023 IA has not been reviewed by Wood Mackenzie)

#### **Tintic – Technology Enabled Exploration in a Historic Mining District**

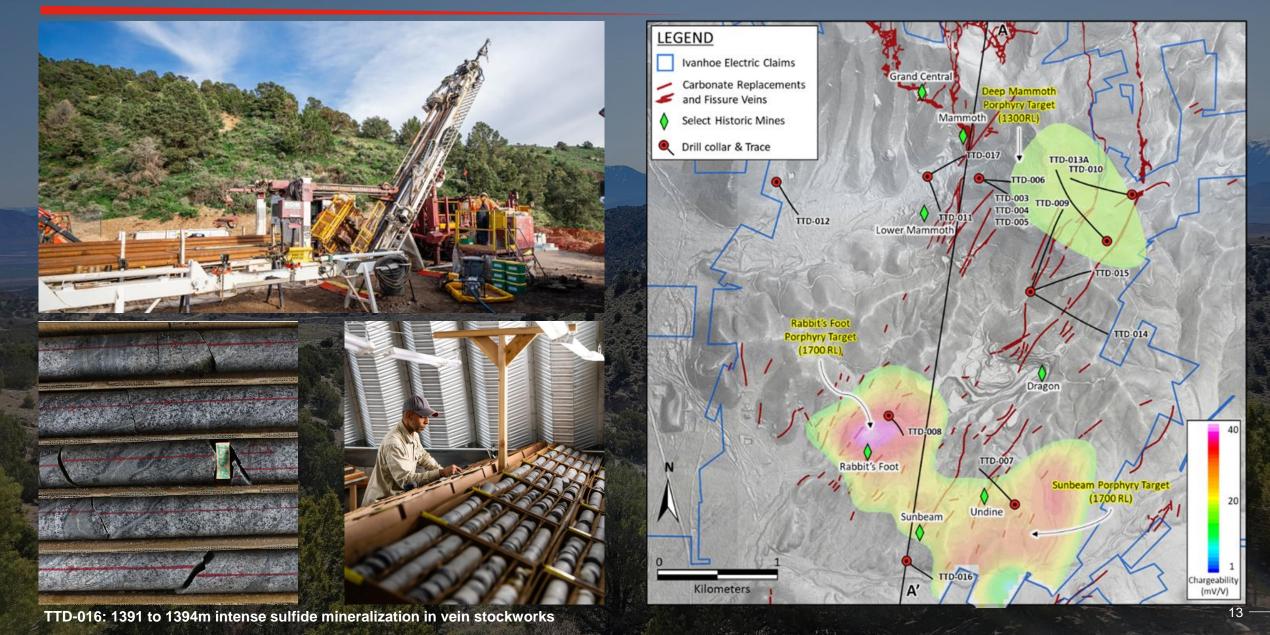
- Located on private land in a historic mining district,
  60km south of Bingham Canyon, with similar geologic characteristics
- Drilling underway: 10 holes totaling 11k meters completed in 2023. Program continues in 2024 with one active drill rig
- Exploration drilling highlights:
  - Intersected a bona fide porphyry system at a Typhoon<sup>™</sup> target
  - Drill hole TTD-016 hit over 600 meters of stockwork veining and sulfides in the Silver City area
  - Established key controls on porphyry mineralization for district
  - Drilling has moved to test below the most significant mines in the district



#### Renewable energy integration opportunity

## Typhoon<sup>™</sup> Survey Guides Ongoing Exploration for Large Porphyry Systems

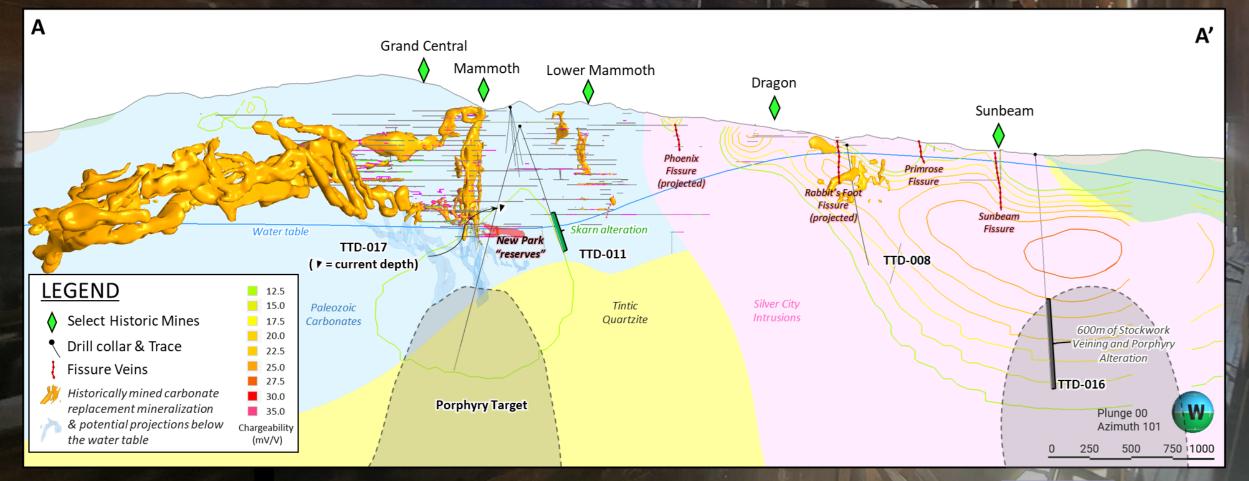
### 



#### Exploration Drilling Finds More Evidence of the Source to Rich Historical Mines



#### Historical mining stopped at the water table, but mineralization is believed to continue to depth



### Hog Heaven - Potential High-Grade Extensions and Porphyry Source

The Hog Heaven district consists of several high sulfidation epithermal mineral deposits and prospects as well as several now-closed mines, including the Flathead Mine

Historic Flathead Mine produced high-grade silver with associated lead, zinc, copper and gold and is open at depth

Drilling underway on private land to search for potential porphyry copper mineralization

Typhoon <sup>™</sup> survey completed in November 2023 to further guide exploration



**Olvanhoe** 

#### Ivanhoe Electric & Ma'aden – 50/50 JV to Explore in Saudi Arabia



# **Glvanhoe**



Exclusive access to explore a vast ~48,500 km<sup>2</sup> area of the underexplored Arabian Shield in Saudi Arabia

\$147.5 million investment by Ma'aden into Ivanhoe Electric to fund the JV and Ivanhoe Electric's US projects

\$66 million to fund the JV, including \$13 million to build 3 new generation Typhoon™ units

Ma'aden is a 9.9% shareholder in Ivanhoe Electric

Initial Typhoon<sup>™</sup> Survey Identifies Three Prospective Chargeability Anomalies for Subsequent Drill Testing

Vanhoe

Three chargeability anomalies have been Identified by Typhoon<sup>™</sup> on the Umm Ash Shalahib Exploration License to the south of Ma'aden's Al Amar Gold-Copper-Zinc Mine

The Umm Ash Shalahib Typhoon survey will eventually cover more than 65 km<sup>2</sup> and is approximately 30% Complete

Exploration drilling on the three identified anomalies to be completed in H1 2024



17



#### Ivanhoe Electric – Compelling Investment Opportunity



- Founded by Executive Chairman, Robert Friedland
- Experienced executive management team
- A combination of advanced technologies, a portfolio of US-focused electric metals assets and a groundbreaking exploration joint venture with Saudi Arabian Mining Company Ma'aden
- Advancing the high-grade underground Santa Cruz Copper Project in Arizona
- Experienced exploration team focused on identifying electric metals deposits
- Well-positioned to benefit from US energy transition and favorable long-term fundamentals for copper

US-Based, Electric Metals Exploration Company with Significant Proprietary Technology Platform

#### Safe Harbor

#### **Forward-Looking Statements**

Certain statements in this presentation constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable US and Canadian securities laws. Such statements and information involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company, its projects, or industry results to be materially different from any future results, performance or achievements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "might" or "will" be taken, occur or be achieved. These statements reflect the company's current expectations regarding future events, performance and results and speak only as of the date of this news release.

Such statements in this presentation include, without limitation: the projections, assumptions and estimates contained in the Initial Assessment related to the Santa Cruz Project, including, without limitation, those relating to exploration, development, capital and operating costs, production, grade, recoveries, metal prices, life of mine, mine sequencing, NPV, IRR, payback, mine design, mining techniques and processes, equipment, staffing, emissions, use of land, water and water management, power and other inputs, tailings storage, groundwater flow and estimates of mineral resources; costs and emissions relative to other mines; use of renewable energy; the acquisition of all mineral titles; the timing and ability to complete the Santa Cruz Project Prefeasibility Study by end of Q2 2025; the potential for improved mining methods, mining rates, and metallurgical recovery compared to what was modeled for the Verde Domain in the Initial Assessment; the potential to accelerate capital payback and boost project economics based on the Verde Domain; the ability to convert a greater portion of resources to probable mineral reserves as part of the Prefeasibility Study for the Santa Cruz Project; the ability to provide 100% of the electricity needs for the Santa Cruz Project, the potential to find higher-grade mineralization at the Santa Cruz Project; the potential expansion of the primary sulfide area in the Texaco Deposit; drilling plans and results of drilling at the Tintic Project; the functioning of our technology; our ability to accelerate and de-risk the mineral exploration process; beneficial US energy transition; favorable regulatory tailwinds; potential copper supply squeeze; potential new discoveries and planned or potential developments in the businesses of Ivanhoe Electric.

Forward-looking statements are based on management's beliefs and assumptions and on information currently available to management. Such statements are subject to significant risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including we have no mineral reserves, other than at the San Matias project; we have inferred resources that may never be upgraded to a higher category of resource or reserve; we have a limited operating history on which to base an evaluation of our business and prospects; we depend on our material projects for our future operations; our mineral resource calculations at the Santa Cruz Project are

only estimates; actual capital costs, operating costs, production and economic returns may differ significantly from those we have anticipated; the title to some of the mineral properties may be uncertain or defective; our business is subject to changes in the prices of copper, gold, silver, nickel, cobalt, vanadium and platinum group metals; we have claims and legal proceedings against one of our subsidiaries; our business is subject to significant risk and hazards associated with exploration activities, mine development, construction and future mining operations; we may fail to identify attractive acquisition candidates or joint ventures with strategic partners or be unable to successfully integrate acquired mineral properties or successfully manage joint ventures; our success is dependent in part on our joint venture partners and their compliance with our agreements with them; our business is extensively regulated by the United States and foreign governments as well as local governments; the requirements that we obtain, maintain and renew environmental, construction and mining permits are often a costly and time-consuming process; our non-U.S. operations are subject to additional political, economic and other uncertainties not generally associated with domestic operations; and our operations may be impacted by the COVID-19 pandemic, including impacts to the availability of our workforce, government orders that may require temporary suspension of operations, and the global economy. These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements and risk factors described in Ivanhoe Electric's Annual Report on Form 10-K and other documents filed with the SEC.

No assurance can be given that such future results will be achieved. Forward-looking statements speak only as of the date of this presentation. Ivanhoe Electric cautions you not to place undue reliance on these forward-looking statements. Subject to applicable securities laws, the company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this presentation, and Ivanhoe Electric expressly disclaims any requirement to do so.

#### Market and Industry Data

This presentation includes market and industry data and forecasts obtained from independent research reports, publicly available information, various industry publications, other published industry sources or internal data and estimates. Independent research reports, industry publications and other published industry sources generally indicate that the information contained therein was obtained from sources believed to be reliable, but do not guarantee the accuracy and completeness of such information. Although the Company believes that the publications and reports are reliable, the Company has not independently verified the data. Internal data, estimates and forecasts are based on information obtained from trade and business organizations and other contacts in the markets in which we operate and the Company's understanding of industry conditions. Although the Company believes that such information verified by any independent sources. As a result, Recipients of this presentation should be aware that any such information and data, are uncertain and may not be reliable.



The Initial Assessment ("IA") is entitled "S-K 1300 Initial Assessment & Technical Report Summary, Santa Cruz Project, Arizona", is dated September 6, 2023, and was prepared in accordance with Subpart 1300 and Item 601 of Regulation S-K. The IA was prepared by the following firms: SRK Consulting (U.S.), Inc. (SRK), Nordmin Engineering, Ltd. (Nordmin), M3 Engineering and Technology Corp. (M3), Met Engineering, LLC (Met Engineering), Call & Nicholas, Inc. (CNI), INTERA Incorporated (INTERA), KCB Consultants Ltd. (KCB), Tetra Tech, Inc. (Tetra Tech), Life Cycle Geo, LLC (LCG), and Haley & Aldrich, Inc. (H&A).

The IA is preliminary in nature and includes an economic analysis that is based, in part, on inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable the inferred mineral resources to be categorized as mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Accordingly, there is no certainty that the results of the IA will be realized.

The IA contains economic analyses which include and exclude inferred mineral resources. This presentation focuses on the economic analysis including inferred mineral resources. For more information regarding the economic analysis without inferred mineral resources, see the IA, which is available on the SEC's EDGAR website as an exhibit to a Form 8-K filed by the Company in connection with the September 6, 2023 announcement.

Other disclosures of a scientific or technical nature included in this presentation have been reviewed, verified, and approved by Glen Kuntz, P.Geo, a Qualified Person as defined by Regulation S-K, Subpart 1300 promulgated by the U.S. Securities and Exchange Commission and by Canadian National Instrument 43-101. Mr. Kuntz is an employee of Ivanhoe Electric.

Ivanhoe Electric will have prepared and filed a corresponding technical report prepared under Canadian National Instrument 43-101 within 45 days of the September 6, 2023 news release. This report will be available on the company's website and on the company's SEDAR+ profile.

For the purposes of Canadian National Instrument 43-101, the independent Qualified Persons responsible for preparing the scientific and technical information disclosed in the September 6, 2023 news release are Anton Chan (SRK); Matt Sullivan (SRK); Joanna Poeck (SRK); Christian Ballard (Nordmin); Laurie Tahija (M3); John Woodson (M3); Jim Moore (Met Engineering); Rob Cook (CNI); Jim Casey (KCB); Annelia Tinklenberg (INTERA); Daryl Longwell (Tetra Tech); Tom Meuzelaar (LCG); and Eric Mears (H&A). Each Qualified Person has reviewed and approved the information in the September 6, 2023 news release, which is incorporated by reference into the Prospectus, relevant to the portion of the scientific and technical information for which they are responsible.

The technical report summary and technical report include relevant information regarding the assumptions, parameters and methods of the mineral resource estimates on the Santa Cruz Project, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this presentation.

Disclosures of a scientific or technical nature included in this presentation pertaining to Ma'aden JV in Saudi Arabia have been reviewed, verified and approved by Charles N. Forster, P.Geo., and Mark Gibson, P.Geo., both who are Qualified Persons as defined by Regulation S-K, Subpart 1300 promulgated by the U.S. Securities and Exchange Commission and by Canadian National Instrument 43-101. Mr. Forster is a Senior Advisor to Ivanhoe Electric and Mr. Gibson is Chief Geophysics Officer of Ivanhoe Electric. Historical drill results provided by Ma'aden and BRGM have not been independently verified by the Qualified Persons.



