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Ivanhoe Mines secures options to power its Tier-One Platreef palladium, rhodium, nickel, platinum, copper and gold mine in South Africa with solar and LNG-generated electricity

Ivanhoe announces strategic equity investment in Renergen, a South African emerging energy and helium producer

Ivanhoe acquires exclusive right to negotiate an offtake agreement for electricity generated from Renergen's gas and solar hybrid-power facility

SANDTON, SOUTH AFRICA – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Executive Co-Chair Robert Friedland announced today that the company has secured options to use electricity generated from renewable, green, solar power together with liquefied natural gas (LNG) to power its Tier-One Platreef palladium, rhodium, nickel, platinum, copper and gold project in South Africa.

Construction of Ivanhoe's first solar power plant at the Platreef Mine is set to begin next month. The initial 5-megawatt (MW) plant is expected to begin supplying clean, solar-generated electricity to the mine in early 2023.

"We have committed to our stakeholders that we will explore every avenue available to minimize the environmental impact of producing metals that are critical to the electrification of the global economy," said Mr. Friedland. "Powering our massive Platreef Mine with reliable electricity generated by 'green power' options, such as solar and natural gas, offers a 24-hour-a-day alternative to the coal-fired national electrical grid and dramatically reduces Platreef's carbon emissions. A power plant running on natural gas generates approximately 50% fewer carbon dioxide emissions than one burning coal."

"Having a reliable source of clean, renewable electricity from a solar-power plant at the Platreef Mine is an important step in our journey toward net-zero carbon emissions," Mr. Friedland added.

In 2021, South Africa's government officially raised the licencing threshold for embedded generation projects from 1 MW to 100 MW, clearing the way for miners to start generating their own electricity.

Design and engineering of the initial 5-MW solar plant at the Platreef Mine is complete and construction is set to commence next month, with commissioning expected in early 2023. The solar-generated power from this initial plant will be used for mine development and construction activities, as well as for charging Platreef's battery-powered underground mining fleet, further reducing carbon dioxide emissions.

Construction is progressing rapidly at the Platreef Mine and initial production is expected from the first phase of operations in Q3 2024. Ivanhoe expects the Platreef Mine to require approximately 30 MW of installed electrical power for its Phase 1 operations, and approximately 100 MW for its Phase 2 operations at full production.

Ivanhoe Mines indirectly owns 64% of the Platreef Project through its subsidiary, Ivanplats, and is directing all mine development work. The South African beneficiaries of the approved broad-based, black economic empowerment structure have a 26% stake in the Platreef Project. The remaining 10% is owned by a Japanese consortium of ITOCHU Corporation; Japan Oil, Gas and Metals National Corporation; ITC Platinum Development Ltd., an ITOCHU affiliate; and Japan Gas Corporation.

## Strategic investment in Renergen Limited gives Ivanhoe the exclusive right to negotiate an electricity offtake agreement

In addition to moving forward on constructing its first solar-power facility at the Platreef Mine, Ivanplats has acquired the exclusive right to negotiate an offtake agreement with South Africa-based Renergen Limited for electricity generated from Renergen's gas and solar hybrid-power facility to be constructed at the Virginia Gas Project located in South Africa's Witwatersrand Basin, approximately 600 kilometres south west of the Platreef Mine.

Ivanhoe is confident that the electricity generated from Renergen's gas and solar hybrid-power facility could be combined with Ivanhoe's solar power facilities to provide Platreef with an uninterruptible power supply to meet the mine's base-load requirements.

Renergen is an emerging producer of helium, energy and liquefied natural gas (LNG) with near-term production and sales of compressed natural gas (CNG) and helium from its Virginia Gas Project that comprises exploration and production rights of 187,000 hectares (1,870 square kilometres) of gas fields across Welkom, Virginia, and Theunissen, in the Free State, South Africa.

Ivanhoe has made an initial equity investment in Renergen of approximately US\$13 million, which gives Ivanhoe an approximate 4.35% interest in Renergen's issued and outstanding shares. Ivanhoe also has the right to nominate one director to Renergen's board of directors, and is entitled to customary anti-dilution rights. Renergen is listed on the JSE and A2X exchanges under the ticker REN and on the ASX under the ticker RLT.

Under the terms of the initial investment, Ivanhoe has the option to subscribe for up to 25% of the total issued and outstanding Renergen shares following the assessment

period, at a 10% discount to the 30-day VWAP, in consideration for cash or shares in Ivanhoe. Further to this second subscription, Ivanhoe will have the option to subscribe for up to 55% of the total issued and outstanding shares, at a 10% discount to the 30-day VWAP, to provide the equity funding for Phase 2 at the Virginia Gas Project.

Ivanhoe Mines and Renergen senior officials sign the agreement for Ivanhoe's initial equity investment in Renergen. Front row (L-R): David King (Chairman, Renergen), Marna Cloete (President, Ivanhoe Mines), Stefano Marani (CEO, Renergen); Back row (L-R): Nick Mitchell (COO, Renergen), David van Heerden (CFO, Ivanhoe Mines).



The Virginia Gas Project's natural gas formation is a result of a freak cosmological event approximately two billion years ago that saw the largest known asteroid ever to hit the planet plough into South Africa's Witwatersrand geological complex, near the town of Vredefort.

The impact of the giant asteroid created the largest known crater on earth (the Vredefort Crater), roughly 330 kilometres in diameter. The impact essentially created a seal, capping ultra-rich underground deposits of uranium and thorium in place, allowing the minerals to undergo natural radioactive decay to produce alpha particles, which become helium.

The impact of the asteroid also established the ideal conditions for early bacteria to congregate. Much like how chlorophyll in plants feed off radioactive energy from the sun, these early bacteria evolved to feed off the radioactivity from the uranium to

metabolize carbon in the rocks into methane. Thus, the alpha particles serve not only the purpose of creating high helium concentrations, but also providing the energy required to allow bacteria to live deep underground, which is why this gas reserve has been classified as renewable by the Petroleum Agency of South Africa.

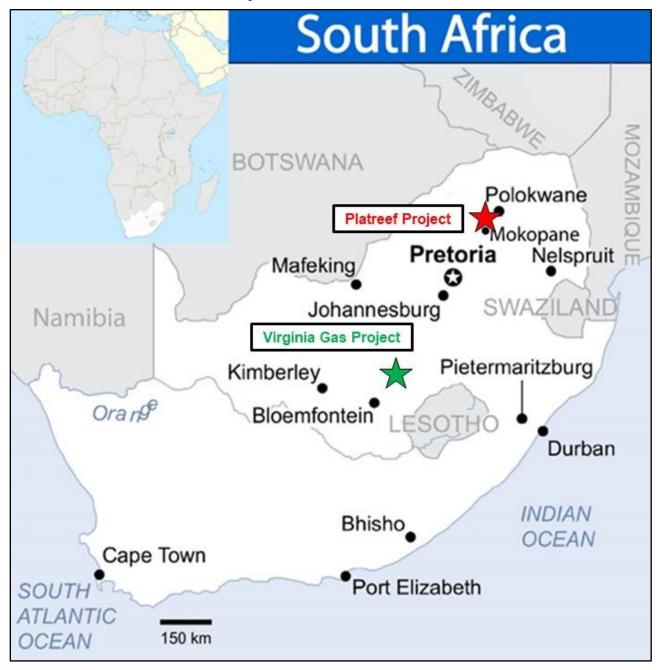
While the methane produced from the Virginia Gas Project is not zero-carbon, it is believed to be regenerated by these bacteria, which explains the exceedingly long lifespan of the wells, most of which were drilled several decades ago and have shown no signs of decreasing in flow.

The Virginia Gas Project also contains one of the richest helium concentrations recorded globally, with readings of up to 12%. Helium is in high demand for use in a range of technologies, including advanced rockets and spacecraft, semiconductors, fibre-optic cables, computer chips, welding, industrial leak detection, cryogenics, nuclear power plants, laboratory equipment and MRI machines.

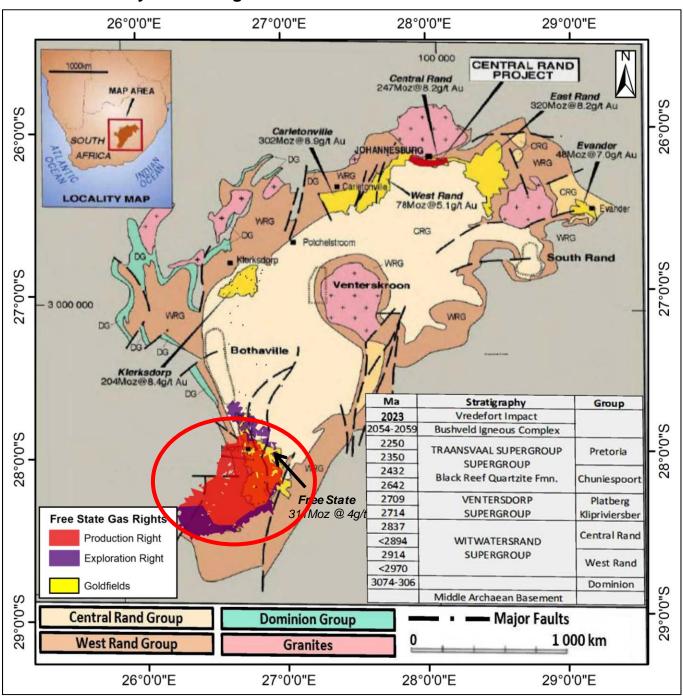
Aerial view of Renergen's Phase 1 compressed natural gas and helium production facility at the Virginia Gas Project, which is set for commissioning in May 2022.



Renergen's Virginia Gas Project is located approximately 600 kilometres southwest of the Platreef Project.



Geological map showing Renergen's Production and Exploration Rights (in the red circle) on the rim of the Vredefort Crater, formed by an asteroid strike approximately two billion years ago, where natural helium is produced from the radioactive decay of ultra-high uranium concentrations below the crater.



More information can be found on Renergen's website at <a href="https://www.renergen.co.za/">https://www.renergen.co.za/</a>

Platreef charging ahead with securing the water and power needed to expand the mine into one of the world's largest and greenest PGMs, nickel and copper producers

Ivanhoe recently announced that the Platreef Mine had signed new agreements for the rights to receive local, treated waste water to supply the bulk water needed for the planned phased development at Platreef.

Under the terms of a new offtake agreement, the Mogalakwena Local Municipality has agreed to supply at least three million litres per day of treated effluent, up to a maximum of 10 million litres per day for 32 years, from the date of first production, sourced from the town of Mokopane's Masodi Waste Water Treatment Works, currently under construction.

"The Platreef Project has outstanding, near-surface exploration potential to significantly add to the project's current nickel-rich mineral resources," said Mr. Friedland. "To capitalize fully on Platreef's incredible mineral endowment, we need to first secure sustainable sources of power and water."

## **About Ivanhoe Mines**

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa: the development of major new, mechanized, underground mines at the Kamoa-Kakula copper discoveries in the Democratic Republic of Congo and at the Platreef palladium-rhodium-platinum-nickel-copper-gold discovery in South Africa; and the extensive redevelopment and upgrading of the historic Kipushi zinc-copper-germanium-silver mine, also in the Democratic Republic of Congo.

Kamoa-Kakula is the world's fastest growing major copper mine. Kamoa-Kakula began producing copper concentrates in May 2021 and, through phased expansions, is positioned to become one of the world's largest copper producers. Kamoa-Kakula is being powered by clean, renewable hydro-generated electricity and is projected to be among the world's lowest greenhouse gas emitters per unit of metal produced. Ivanhoe Mines has pledged to achieve net-zero operational greenhouse gas emissions (Scope 1 and 2) at the Kamoa-Kakula Copper Mine. Ivanhoe also is exploring for new copper discoveries on its Western Foreland exploration licences in the Democratic Republic of Congo, near the Kamoa-Kakula Project.

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## Cautionary statement on forward-looking information

Certain statements in this news release constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the company, the Platreef Project, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking

statements or information. Such statements 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", "would", "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.

The forward-looking statements and forward-looking information in this news release include without limitation, (i) statements regarding initial production is expected from Platreef's first phase of operations in Q3 2024; (ii) statements regarding plans to generate an initial 5 MW of electrical power from an adjacent solar power plant; (iii) statements regarding construction of the solar plant is set to commence next month and commissioning is expected in early 2023; and (iv) statements regarding expectations that the Platreef Mine will require approximately 8 MW of installed electrical power for its Phase 1 operations, and approximately 100 MW for its Phase 2 operations at full production.

All such forward-looking information and statements are based on certain assumptions and analyses made by Ivanhoe Mines' management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; social or labour unrest; changes in commodity prices; unexpected failure or inadequacy of infrastructure, industrial accidents or machinery failure (including of shaft sinking equipment), or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading "Risk Factors" in the company's most recently filed MD&A as well as in the most recent Annual Information Form filed by Ivanhoe Mines. Readers are cautioned not to place undue reliance on forward-looking information or statements. Certain of the factors and assumptions used to develop the forward-looking information and statements, and certain of the risks that could cause the actual results to differ materially are presented in technical reports available on SEDAR at www.sedar.com and on the Ivanhoe Mines website at www.ivanhoemines.com.

Although the forward-looking statements contained in this news release are based upon what management of the company believes are reasonable assumptions, the company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this news release and are expressly qualified in their entirety by this cautionary statement. 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 news release.

The company's actual results could differ materially from those anticipated in these forward-looking statements as a result of the factors set forth below in the "Risk Factors" section in the company's 2021 Q4 and Year-End MD&A and its current annual information form.