

April 26, 2021

**Kamoa-Kakula joint-venture signs agreement with the DRC's state-owned power company to upgrade Turbine 5 at the Inga II hydropower complex**



**Turbine 5 to produce 162 MW of renewable hydropower, providing the Kamoa-Kakula Copper Complex and associated smelter with sustainable electricity for future expansions**



**Democratic Republic of Congo's President Félix Tshisekedi expresses support for the Turbine 5 upgrade at Inga II**



**Voith Hydro of Germany to be appointed as lead contractor for the Turbine 5 project**



**Upgrading of the Mwadingusha hydropower plant is nearing completion to generate 78 MW of hydropower for the first two phases of copper production at Kamoa-Kakula**



**Combined 240 MW output from the Mwadingusha and Inga II hydropower plants also will benefit local communities**

**KINSHASA, DEMOCRATIC REPUBLIC OF CONGO – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Co-Chairs Robert Friedland and Yufeng “Miles” Sun are pleased to announce that Ivanhoe Mines Energy DRC, a sister company of Kamoa Copper SA tasked with delivering reliable, clean, renewable hydropower to the Kamoa-Kakula Copper Mine, has signed a memorandum of understanding (MOU) in a public-private partnership with the DRC's state-owned power company La Société Nationale d'Electricité (SNEL) to upgrade a major turbine (#5) in the existing Inga II hydropower facility on the Congo River.**

**His Excellency Félix Tshisekedi, President of the Democratic Republic of the Congo, commented on the significance of the public-private partnership to upgrade one of eight turbines at the Inga II hydroelectric power station to produce clean, renewable electricity to support Kamoa-Kakula's expansion plans and provide reliable electricity to local communities: *“The Democratic Republic of the Congo is blessed with***

*extraordinary hydroelectric potential. It is imperative to develop this potential because hydropower is clean, reliable and renewable. It is undoubtedly the most suitable type of electricity to support our country's long-term development priorities."*

*"Partnerships such as the one between SNEL and Ivanhoe allow us to inject additional capacity into our electrical grid and improve the living conditions of Congolese citizens by increasing their access to electricity. At the same time, the additional power that will be generated will allow Kamo-Kakula to beneficiate its mining products in the DRC. This will create additional revenue for the country, as well as employment opportunities for our people. As the host country and as a shareholder of Kamo Copper, the DRC sees this local value creation as a strategic imperative," President Tshisekedi added.*

Ben Munanga, Chairman of Kamo Copper, remarked: "The bilateral cooperation between Ivanhoe Mines Energy DRC and SNEL to secure reliable power for Kamo-Kakula is a win-win partnership and underscores the importance that the DRC government places on the development of large-scale mining projects in the country."

"This new power-supply agreement is an important step forward on our sustainability journey as it will provide Kamo-Kakula with priority access to a combined 240 megawatts of clean, renewable electricity from the upgraded turbines at Mwadingusha and Inga II hydropower plants," Mr. Munanga added.

### **Estimated 162 megawatts of hydropower expected to be generated by upgrading Inga II's turbine 5**

The Inga II hydropower plant is located in the southwest of the DRC, on the Congo River. The Congo River is the deepest river in the world and the second longest after the Nile, with a flow rate second only to the Amazon's. Measured along with the Lualaba, the main tributary, the Congo River has a total length of 4,370 kilometres. It is the only major river to cross the equator twice. The Congo River is unique in that it has large rapids and waterfalls very close to the mouth while most rivers have these features upstream. The rapids and waterfalls give the Congo River huge hydropower potential. The Congo Basin covers an estimated total area of 3.7 million square kilometres, approximately 13% of the entire African landmass.

Originally equipped between 1977 and 1982, Inga II has been running for approximately 40 years. Four of the eight turbines at Inga II have been refurbished. Turbine 5 is one of the remaining four that are awaiting an upgrade. An estimated output of 162 megawatts (MW) is expected to be unlocked by upgrading Inga II's turbine 5, part of which will be used to meet future power requirements of the Kamo-Kakula Mine. The surplus power produced from the upgraded turbine will be distributed on the national power grid to increase access to electricity for the citizens of the DRC.

SNEL and Ivanhoe Mines Energy DRC plan to appoint Voith Hydro of Heidenheim, Germany, a leading engineering group, as the contractor to lead the consortium of

equipment manufacturers for the turbine upgrade. For more than 80 years, Voith has successfully constructed and modernized hydropower plants on the African continent, and approximately 25% of currently installed turbine capacity in Africa has been supplied by Voith. Voith also has successfully rehabilitated two turbine generators at the adjoining Inga I hydropower plant, a project that was financed by the World Bank.

Detailed engineering and costing for the upgrading of Inga II's turbine 5 is ongoing. However, initial indications are that the upgrading can be accomplished at a significantly reduced cost per megawatt generated compared to the upgrading of the Mwadingusha plant.

Aerial view of the Inga I (rear) and Inga II (front) hydropower plants on the Congo River. The penstock funneling water to turbine 5 at Inga II is circled in red.



## **Hydropower for sustainable development**

**Mr. Friedland said a long-term, sustainable supply of electricity is essential to Ivanhoe's vision to develop Kamoakakula into one of the world's largest copper projects and doing it in an environmentally, ethically and socially responsible manner. As a sustainable source of energy, hydropower can make a significant contribution to a country's economic and social development.**

**"Until now, a key limiting factor in expanding Kamoakakula to its full potential has been the availability of sufficient power. Given the project's massive Indicated Resources of approximately 1.4 billion tonnes grading 2.7% copper, at a 1% cut-off, and the outstanding potential to find more high-grade copper, the new partnership with SNEL on Inga II gives us a clear line of sight to realizing our vision of building Kamoakakula into the world's largest, high-grade, green copper mine," said Mr. Friedland.**

**"Our first public-private partnership with SNEL – the upgrading of the Mwadingusha hydropower plant – has gone very well and we are pleased that facility will provide clean hydro-generated electricity to local communities as well as to Kamoakakula for Phase 1 and Phase 2 production. The supply of reliable hydropower is critical to Kamoakakula achieving its goal of becoming the world's "greenest" copper mine and be among the world's lowest greenhouse gas emitters per unit of copper produced.**

**"The signing of the MOU with SNEL for the upgrade of turbine 5 at Inga II is an expedient, cost-effective way to deliver clean, reliable and renewable electricity to Kamoakakula for the project's planned expansions and the project's own smelter. Our preference always has been to work with SNEL to upgrade existing hydro facilities, providing a shared benefit for as many people as possible.**

**"We are fortunate to be operating in the DRC, which is blessed with incredible hydropower potential. Hydropower, being clean, reliable and sustainable, is the best energy solution to support our long-term development priorities as we continue to look for ways to reduce our impact on the environment, provide meaningful and long-lasting benefits to the communities in which we operate, and produce the copper the world urgently requires."**

**The Kamoakakula Copper Project is a joint venture between Ivanhoe Mines (39.6%), Zijin Mining Group (39.6%), Crystal River Global Limited (0.8%) and the Government of the Democratic Republic of Congo (20%).**

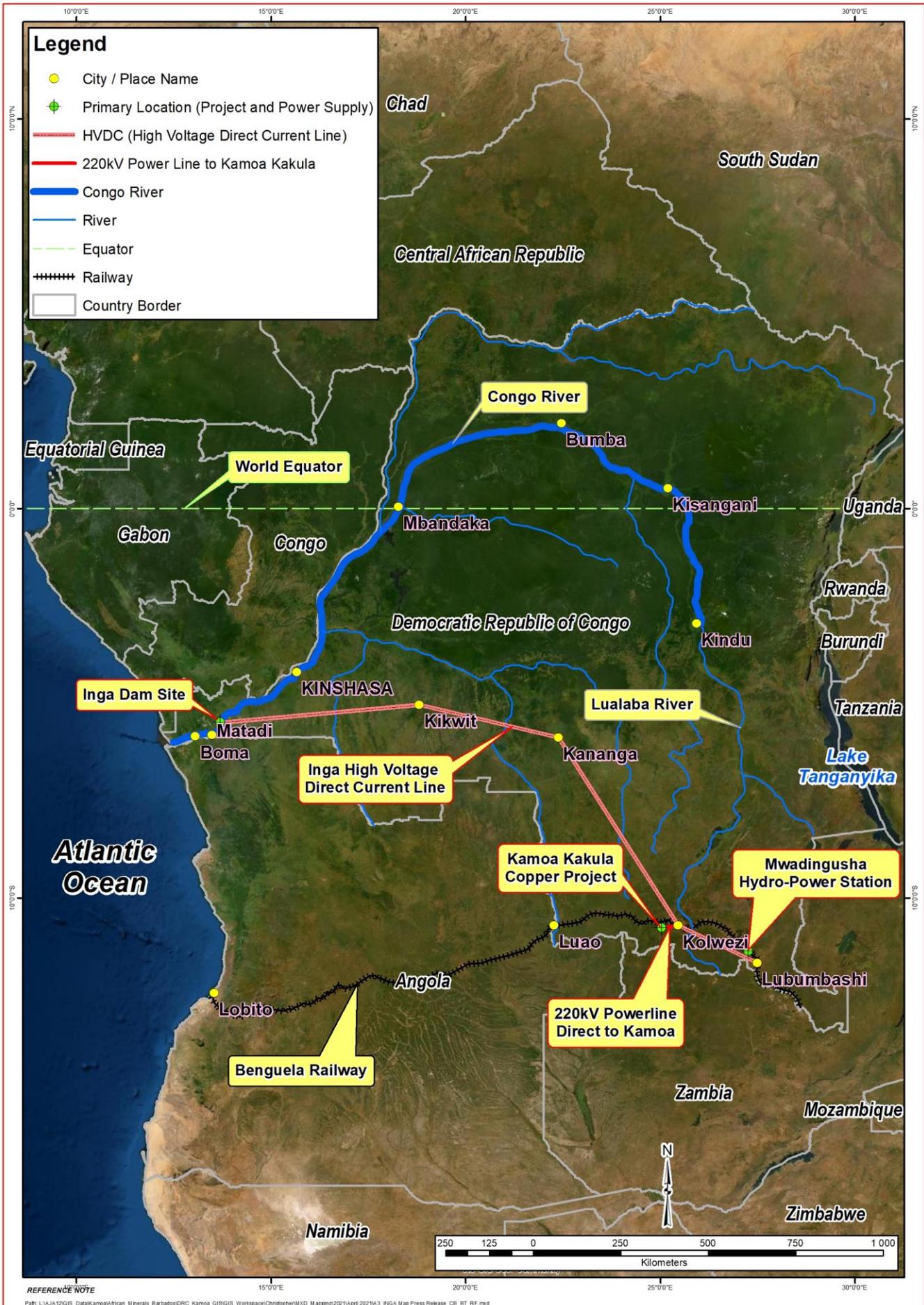
**Kamoa-Kakula's initial 3.8-Mtpa concentrator plant, energized with hydropower.**



**Aerial view of the upgraded 78-MW Mwadingusha hydropower facility.**



**The map on the next page shows the Inga and Mwadingusha hydropower complexes, the Inga high-voltage power line, the Kamoa-Kakula Project, the new 220-kV power line connecting Kamoa-Kakula to the national grid at Kolwezi, and the Benguela railway connecting the DRC to the Angolan port of Lobito.**



## **Kamoa-Kakula's main 220-kV substation energized with clean, renewable hydropower**

In December 2020, the 35-kilometre-long double circuit 220-kilovolt (kV) power line to Kamoa-Kakula was connected to the national electrical grid, providing access to the Inga-Kolwezi high-voltage direct current power line, through the New Western Dispatch substation in Kolwezi. Kamoa-Kakula's main 220-kV substation was energized with grid power on March 25, 2021.

**Kamoa-Kakula's main 220-kV substation, now fully energized with clean, renewable hydropower.**



**The 220-kV power line connecting Kamoa-Kakula to the national electrical grid.**



On March 25, 2021, senior management from Kamo Copper, French contracting company Cegelec, and the DRC state-owned power company SNEL, celebrated the energizing of Kamo-Kakula's main substation.



### **Upgrading of the 78-MW Mwadingusha hydropower plant nearing completion; new fly-over video showcases latest advancements**

Upgrading of the six new turbines at the Mwadingusha hydropower plant, the first public-private partnership between Ivanhoe Mines Energy DRC and SNEL, is nearing completion and is expected to soon deliver approximately 78 MW of electricity to the national electrical grid, to provide power for Kamo-Kakula's initial two phases of production to 7.6 million tonnes per annum (Mtpa).

Three of the six new turbines at the Mwadingusha hydropower plant now have been synchronized to the national electrical grid, with each generating unit producing approximately 13 MW of electricity. The completion and commissioning of the hydropower plant's remaining generating units, in sequence, is in progress.

**Watch a short fly-over video of the upgrading of the hydropower plant and associated infrastructure: <https://vimeo.com/541351071>**

Supervision of the upgrading work at Mwadingusha is being conducted by Stucky Ltd. of Renens, Switzerland. The advance payments made by Ivanhoe Mines Energy DRC to fund the upgrading work will be recovered by Kamo-Kakula through a retention of a percentage on monthly electricity consumption bills.

**The Mwadingusha hydro dam, upstream from the hydropower building.**



**The hydropower building at Mwadingusha and the green penstocks that funnel water from the dam to drive the six new turbines.**



**Inside the Mwadingusha hydropower building, with three generating units (1, 2 & 3 in the background) fully assembled and operating. Assembly of units 4 & 6 is nearing completion, and casting for unit 5 (in the foreground) is underway.**



## **About Ivanhoe Mines**

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

**Kamoakakula is expected to soon begin producing copper and, through phased expansions, is positioned to become one of the world's largest copper producers. Kamoakakula and Kipushi will be powered by clean, renewable hydro-generated electricity and will be among the world's lowest greenhouse gas emitters per unit of metal produced. Ivanhoe also is exploring for new copper discoveries on its wholly-owned Western Foreland exploration licences in the DRC, near the Kamoakakula Project.**

## **Information contacts**

**Investors: Bill Trenaman +1.604.331.9834 / Media: Matthew Keevil +1.604.558.1034**

## Forward-looking statements

Certain statements in this release constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable 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 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 release.

Such statements include without limitation, the timing and results of: (i) statements regarding the upgraded turbine 5 is expected to produce 162 MW of clean, renewable hydropower, providing the Kamo-Kakula Copper Mine with sufficient, sustainable electricity for future expansions, including its own copper smelter; (ii) statements regarding the plan to appoint Voith Hydro of Germany as lead contractor for the upgrading of the turbine; and (iii) statements regarding upgrading of the Mwadingusha hydropower plant will generate approximately 78 MW of hydropower for the first two phases of production at Kamo-Kakula; (iv) statements regarding the new power-supply agreement is an important step forward on our sustainability journey as it will provide Kamo-Kakula with priority access to a combined 240 megawatts of clean, renewable electricity from the upgraded turbines at Mwadingusha and Inga II hydropower plants; (v) statements regarding initial indications are that the upgrading of turbine 5 at Inga II can be accomplished at a significantly reduced cost per megawatt generated compared to the upgrading of the Mwadingusha plant; and (vi) statements regarding given the Kamo-Kakula project’s massive Indicated Resources of approximately 1.4 billion tonnes grading 2.7% copper, at a 1% cut-off, and the outstanding potential to find more high-grade copper, the new partnership with SNEL on Inga II gives us a clear line of sight to realizing our vision of building Kamo-Kakula into the world’s largest, high-grade, green copper mine.

Forward-looking statements and information involve significant risks and uncertainties, should not be read as guarantees of future performance or results and will not necessarily be accurate indicators of whether or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements or information, including, but not limited to, the factors discussed below and under “Risk Factors”, and elsewhere in this release, as well as unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts with the company to perform as agreed; social or labour unrest; changes in commodity prices; and the failure of exploration programs or studies to deliver anticipated results or results that would justify and support continued exploration, studies, development or operations.

Although the forward-looking statements contained in this 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 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 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 2020 Q4 MD&A and its current annual information form.