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PRESENTATION

Operator

All participants, please stand by. Your conference is now ready to begin.

Good day ladies and gentlemen, and welcome to First Quantum's Capital Markets Day event. I would now like to turn the meeting over to Bonita To, Director, Investor Relations. Please go ahead, Ms To.

Bonita To, Director, Investor Relations

Hello, and thank you everybody for joining First Quantum's Capital Markets event. At First Quantum there is never a dull moment and today's event will be no different.

We are very excited to have our extended team present today on the projects and initiatives that we are working on. Before I hand it over to Tristan, our Chief Operating Officer, there are few items to mention.

A copy of today's presentation can be found on our website. This event is also being recorded and replay will be available.

Our team presenting today is joining us from around the globe and to keep things simple we will have two Q&A sessions, one half-way through our presentation and a final one at the end.

If you would like to ask a question, please use the dial-in number that is provided in our press release dated December 15, 2021, which can be found on our website.

Tristan will also address recent developments with regards to Law 9 in his closing remarks, and we ask that

questions on this topic to wait until the second Q&A session.

And finally, today's presentation may contain forward-looking statements so I encourage to review Slide 2 of our presentation. As well, all dollar amounts mentioned today are in US dollars unless otherwise noted.

With that, I will hand it over to Tristan to start today's event.

Tristan Pascall, Chief Operating Officer

Thank you Bonita. Good day and welcome to First Quantum's Capital Markets Day.

Today I will start by describing the First Quantum culture and our approach to operations. I will then provide an overview of our 2021 production and three-year guidance, which we released yesterday evening. Zenon Wozniak and John Gregory will then provide an update on our brownfield project portfolio and how we approach projects and studies. John and Zenon are both based in our Perth office where much First Quantum's technical expertise resides. John, who is responsible for mining and studies, and Zenon, who is responsible for projects, have been part of the core First Quantum team for almost 20 years and have many valuable lessons from this eventful period which will be applied to our future projects.

John Dean, who is currently Assistant General Manager at Cobre Panama and has been with the Company for over 10 years, will then provide an overview of our two greenfield projects in Latin America, being Taca Taca and Haquira. We will then take some questions on those topics, and following a short break, Andrew Hester, who is Environmental Group Manager and leads our ESG efforts, and like John Dean is based out of Panama, will talk through our approach to this area and provide more detail on our targets to reduce greenhouse gas emissions, which we released yesterday evening.

Our CFO, Hannes Meyer, who has been with the Company for 10 years, will then provide an overview on our approach to capital allocation and outline our new dividend policy before I wrap up.

We are very proud of First Quantum's 25-year history where we have grown from a 10,000 tonne per annum copper tailings processor in Zambia into the worlds sixth largest copper producer. In order to deliver this growth, we have constructed mines of all sizes in a broad range of conditions from the Arctic Circle to the extreme heat of the Sahara Desert, and also in high rainfall near the Equator.

We have built and operated underground and open pit mines across more than eight different countries, tackling a variety of technical challenges along this journey. The last 10 years in particular has been a period of significant change and growth for the Company. We built and commissioned two of the largest greenfield copper projects globally in Sentinel and Cobre Panama. At Kansanshi, we constructed the newest large copper smelter outside of China. In nickel, we have developed a very strong platform as we have large built the Enterprise Nickel project in Zambia, now awaiting mine startup, and we have ramped up the Ravensthorpe nickel mine in Australia.

Looking forward, our strategy is clear. Beyond our immediate focus on reducing debt to efficient levels, we will continue to allocate capital to invest in our business in a disciplined manner. In the near term, we will focus on brownfield projects to increase our copper production to near 1 million tonnes per annum, whilst we carefully assess our opportunities for the next large greenfield development. We also see the need to make clear our approach in returning dividends to shareholders, which Hannes will touch upon later.

While today we wanted to focus on our future and the exciting times ahead, it is worth highlighting the business philosophy that has been core within First Quantum to date, and we believe will be key to our success in the future.

First Quantum is recognized as a growth company and we will continue to seek growth in a financially disciplined manner. To deliver this growth we have taken on new challenges where others are unable or unwilling, whether through technical innovation or pioneering new jurisdictions, but we are very aware, of course, of the challenges involved in developing new projects and that every new mine is different and requires substantial effort and clear thinking in order to unlock and develop it successfully.

Our proven track record is based on four pillars. One, we target economically attractive ore bodies. Two, we then apply our strong in-house execution capabilities to develop these ore bodies. Three, after building the mines we drive operational excellence to run them efficiently, productively, to optimize financial returns for the

business. And four, where it is impactful on the ground, we apply technology and fresh thinking in a practical, hands-on way. This approach is guided by two basic principles, which are empowering our people and growing responsibly.

Our people remain core to our business and we are focused on retaining our unique culture. Empowering our people focused on accountability, teamwork, mutual respect, and, most importantly, a commitment to their health and safety.

We are investing in the development of current and future capabilities of the people in our business, in particular, amongst our national workforces. We are focused on inclusivity to broaden our knowledge and skills, and continuing to make First Quantum an interesting and motivating place to work.

Whilst we understand that profitability is the engine that drives the business, our future opportunities, and delivers value for shareholders, growing responsibly has always been core to First Quantum. Responsible growth includes being a leader in environmentally sound practices and socially responsible actions and partnerships. In each of the countries in which we operate, we focus on listening to and learning from the key stakeholders around us and engaging respectfully and ethically with the local communities.

Building and operating a mine is about having a real positive impact in the countries and communities in which we operate, not because it's a box that needs to be ticked, but because we believe it is the right thing to do, and which will have lasting benefits long after the mine is closed. Further, we understand that respect for the environment alongside a holistic approach to safety in the workplace has always been at the heart of good, productive operations and good business. So, we play close attention to reduce our impact on the environment, and to improve our legacy; for example, through the many biodiversity programs around our operations, which Andrew will touch on later.

This approach is also reflected in our commitment to reduce our greenhouse gas emissions and Andrew will also discuss this later in the presentation. But as a preview, I am delighted to share that we have set a target to reduce both the absolute as well as the intensity of our Scope 1 and 2 greenhouse gas emissions by 50 percent by 2030. We have identified tangible solutions to significantly reduce our emissions at Cobre Panama over time and without significant incremental capital or operating cost to the business. This will strongly position First Quantum to deliver substantially lower greenhouse gas intensity copper production that is essential to meet the global challenges posed by climate change.

At First Quantum we see that increased supply of critical metals such as copper and nickel is required to meet the needs of the global transition from fuel-intensive energy systems to lower carbon alternatives, particularly in developed economies around the world. Both copper and nickel are required in substantially higher volumes for new renewable energy infrastructure, and electric vehicles, compared the requirements for thermal energy and conventional internal combustion engine cars.

Further, in emerging economies, we see that continued upliftment of populations will entail ongoing demand for copper for construction of housing, industrial growth, and electrical infrastructure on a growing unit per capita basis. We see these as fundamental demand elements over the medium to longer term, even if the market will continue to have some level of uncertainty in the immediate short term as we emerge from the pandemic.

A responsible approach to mining is the only acceptable solution in order to deliver new primary production of metals without which we consider the global transition to a low-carbon economy will not be possible.

We see that the supply side of critical metals, including copper and nickel, will continue to be impacted by higher permitting and regulatory hurdles, and these will continue to push out project timelines and affect the certainty of new mine production on average. Nonetheless, at First Quantum we believe we are well placed to deliver the metals required for the global challenges of the 21st century. We absolutely recognize our need to extract metals in a way that continues to be cleaner and more environmentally responsible in order to be a partner of choice in new geographies. Our very competitive brownfield and greenfield pipeline that John and Zenon will outline later positions us to deliver the financially disciplined and responsible growth in copper and nickel supply which are so needed.

At First Quantum we pride ourselves on an entrepreneurial culture focused on practical, real solutions to technical challenges, and this is achieved by empowering our people with the support and trust to get the job done. Our culture is outcome-driven, based on responsibility and accountability rather than a process-driven or bureaucratic approach.

We operate a decentralized operating model with lean corporate offices with much of the decision-making occurring at the local level where there is a good understanding of the reality on the ground. We believe this approach encourages creative problem solving with decisions being made efficiently. It sometimes means challenging accepted norms.

Many of the key management have been with First Quantum for the majority of the Company's 25-year history, and have been part of inventing this adaptable and entrepreneurial approach. Continuity of strong relationships across the organization, alongside developing our personnel and growing the diversity inclusivity of our teams will be a focus of the Company into the future.

An area where the First Quantum approach is best captured is in our approach to innovation and new technologies.

We don't work through top-down corporate-driven initiatives. Instead, we focus on implementing practical new approaches which address the real, on-the-ground challenges that our mines face. We consider that implementation of new technology and innovation will also drive continuous improvement in our impact on the environment and climate. We challenge our people to dream boldly and find another way, and in this we apply both traditional and technology-led innovation.

On traditional innovation, trolley assisted in-pit crushing and conveying, to which Zenon, John Gregory and Andrew Hester will speak to in more detail, is used at our existing operations and will be integrated in future brownfield and greenfield projects.

As an example of traditional innovation, at Sentinel we recently initiated a change in method of the whole road (phon) construction through the use of what is called a Cape Seal surface. This involves adapting a paving solution more typically used for highways and modifying its use by the heavy equipment in the mine, which has enabled a 40 percent reduction in road construction and ongoing maintenance costs. The increased speed of the fleet on this road improves productivity and reduces the intensity of emissions for each tonne of copper we produce. This approach is an example of a practical, on-the-ground innovation making a very real impact to our business.

We also work very closely with our suppliers to develop and be first movers in new technology. As an example of our willingness to prove up new technologies which can potentially change the game on productivity, profitability and environment impact, we have worked with our suppliers at the Kansanshi smelter where we have pioneered installation and successful commissioning of an isoconvert continuous converter. We expect this unit will be augmented with more automated mat handling capability in the near future, further making an old batch process into a continuous process with improved off-gas catcher.

We are also excited about our technology-led innovations. As an example here, Sentinel is using machine learning and artificial intelligence to optimize its blasting practices, in contrast to the traditional approach of using blast moving balls. This has reduced our blast hand over overtime by 50 percent and given us the ability to iteratively improve accuracy for plotting ore and waste and broken rock.

As we tackle the continuous optimization of our operations and the enhancement of our productivity and profitability, and also environmental and climate impact, we will continue to apply this First Quantum approach to drive real, practical improvement throughout our business. As we say inside the business, we have an insatiable appetite to improve.

Yesterday evening we released our 2021 production results. We are pleased to have met our copper production guidance, whilst gold production came in better than expected. The Company achieved its highest-ever annual copper productions of 816,000 tonnes, a 5 percent increase from 2020, attributable to record-breaking production at Cobre Panama and the resilience of our other operations in dealing with the ongoing challenges brought about by COVID-19 over the last two years.

Cobre Panama's performance was very strong, exceeding initial 2021 guidance and achieving the top end of our revised guidance, despite facing pandemic-related restrictions for three quarters of the years.

Sentinel achieved strong copper production of 233,000 tonnes of copper for the full year, despite a ball mill Trunnion failure in Q1 last year, and a lower grade profile relative to 2020.

Kansanshi achieved copper production of 202,000 tonnes of copper, 19,000 tonnes lower than 2020, reflecting the reduction in oxide ore and the ongoing challenge of a

selective high ore grade methodology at Kansanshi in advance of approval of the S3 project.

We also released our three-year guidance where we forecast continued production growth.

Copper production guidance has been revised upwards for each of 2022 and 2023, and is expected to increase to 850,000 to 910,000 tonnes of copper in 2024.

Nickel production, which was 17,000 tonnes in 2020, is forecast to grow to 40,000 to 50,000 tonnes by 2024.

Our C1 cost guidance for both copper and nickel have increased, reflecting recent inflationary pressures as well as movement in foreign exchange rates, particularly in Zambia. The all-in sustaining cost guidance also reflects higher royalties in Zambia related to copper prices, as well as an increase in sustainable capital expenditures.

At this stage, our all-in sustaining cost guidance assumes no change in the royalty regime at Panama.

Guidance on 2022 and 2023 capital expenditures has been increased to reflect inflationary and logistical pressures, in particular on project expenditure as well as the acceleration of existing projects and inclusion of new projects.

Across the three year of guidance, approximately $700 million will be spent on the Kansanshi S3 project development with the majority of the spend to occur in 2023 and 2024, although we have not yet approved the project.

Project capital over the guidance period now includes the Southeast Zone pit pre-stripping mining activities of $100 million. The Kansanshi S3 development capital expenditure over the full life of the project is expected to be approximately $900 million and includes the development and construction of the S3 process plant circuit and mining fleet acquisitions. The commencement of the S3 project will bring forward pre-strip mining activities of the Southeast Zone pit, which is expected to be a further approximately $350 million over five years to 2026.

Approximately $450 million has been included in guidance for the 100 million tonne per annum expansion of Cobre Panama, including development of the Colina pit. The 100 million tonne per annum project includes ball mill 6, secondary screening, process water works, crusher relocation, port modifications and the concentrate shed expansion.

New projects not previously including guidance are the Enterprise Nickel project, Guelb Moghrein's cutback 4 in 2022 which will extend mine life by two years, as well as accommodation facilities expenditure at Cobre Panama over three years.

Guidance has also been increased for the acquisition of a fifth a fifth rope shovel and two additional haul trucks, and port modifications at Cobre Panama.

The Las Cruces underground project has not yet been included in capital expenditure guidance.

Much of the production growth outlined in our copper guidance is due to our brownfield projects with the expansion of Cobre Panama and Kansanshi S3 included in our outlook. Enterprise is also included in our nickel guidance for the first time. Together with Las Cruces Underground, our brownfield project portfolio has us on track to produce around 1 million tonnes per annum of copper. This brownfield project portfolio represents financially disciplined, low-cost, low-risk growth which Zenon and John will highlight further in our presentations today.

Our greenfield projects, Taca Taca and Haquira, as John will describe, provide further growth optionality.

In many ways the variety of the four brownfield projects reflects First Quantum's diverse skill set and experience, as well as the ongoing diversification of our business. The four projects span three continents, are a mix of both copper and nickel, and are both open pit and underground expansions. What they all have in common is that they leverage existing infrastructure, operating teams, existing permitting and strong community relations. This reduces both the risk and capital intensity of these near-term growth projects for us.

All four projects will be powered by renewable power and provide critical minerals in the form of copper and nickel for the global energy transition.

I will now hand the presentation over to Zenon who will cover the first of these projects, the expansion of Cobre Panama. Before he does that though, he will briefly describe our unique approach to project development at First Quantum.

Zenon Wozniak, Director, Projects

Thank you, Tristan. One of the central principles with regard to how we execute projects is that we look to maximize our own in-house execution with limited dependence on external firms. Over the last 10 to 15 years in particular, we have moved more and more capabilities in-house, including having our own construction capability for each discipline. Ultimately, it is our view that developing and retaining a motivated and experienced project team that relies on our own capabilities is our preference. We believe this has a number of advantages, including the ability to approach project design and construction in an efficient way, and that we can apply learnings in-house from each project as we go forward.

We started moving towards this execution model from about 2005, after the original Kansanshi project was constructed largely in a conventional EPCM manner. At that time we could see first-hand the associated difficulties of productivity, contract cost claims, inability to amend priorities quickly, and that many of the lessons learned were lost when the EPCM firm moves on to the next project or its people move to another company.

In addition, having the project team and commissioning team both consisting of First Quantum employees further facilitates smooth handovers of projects to operations, especially with operations personnel also being seconded into the commissioning team. Overall, we believe our approach has demonstrated to be cost and schedule effective, and reduces the overall execution risk.

Our approach to maximizing inhouse skills means that the same First Quantum team can move from project to project, taking all previous learnings with them. On this slide, you can see that these learnings have allowed us to tackle a wide variety of projects and more recently many of the learnings from Sentinel were applied at Cobre Panama. These learnings were principally associated with the challenges of designing, constructing and commissioning large throughput mines. These continuous learnings can now once again be applied as we plan for S3 and Taca Taca, which have very similar mine designs and plant configurations.

Cobre Panama benefitted from this approach and it has been both very pleasing and very impressive to see the resulting strong operational performance since commercial production was declared. It is now one of the world's largest, lowest cost copper mines with many inherent benefits. It has new best-in-class mining equipment, is located near sea level and is only 25 kilometres from its own international shipping port. There is a dedicated wholly-owned pipeline to transport the concentrate to the port, further reducing our logistics costs.

It is mined using a terraced mining approach and has a very low strip ratio of 1:1 during the overall life-of-mine which is one of the lowest amongst world-class copper mines. The mine fleet includes the largest haul trucks in the world, the majority of which also have electric motors as part of our trolley assist approach which reduces the diesel required by the fleet at the most energy intensive point of haulage, to which Andrew will discuss in more detail in his ESG presentation.

The plant is the single-largest copper process plant in the world, built in one single stage and includes three 28 megawatt SAG mills and five ball mills, with all mills and much of the other equipment being amongst the largest available in the industry.

It also has access to competitive labour markets and a skilled Panamanian workforce.

Given all these inherent benefits and very strong project economics, it was an easy decision to expand the processing facility from 85 million tonne per annum to 100 million tonne per annum throughput. This expansion project is now well underway and will eventually take annual copper production at Cobre Panama to over 400,000 tonnes per annum. The original construction of the 85 million tonne per annum project included significant foresight and flexibility to enable future expansion, including having a conveying circuit which could already delivery 100 million tonne per annum of ore and a flotation circuit capable of treating that throughput. Works were undertaken to enable relatively simple expansion for other plant areas, most notably milling, for additional future ball mills.

The expansion of Cobre Panama to 100 tonne per annum is made up of three principal scope areas. The first is an upgrade to the plant process water system to provide the additional water required to meet the higher throughput rates. The water upgrade is principally an additional large pipeline of two metres in diameter, bringing more water back from the tailings storage facility decant area. This addresses the additional water requirements for the throughput increase, and secondly, it will reduce reliance on return of pit water to support operations.

The second part of the 100-million tonne per annum expansion is the installation of a second ball milling into milling train 3. Currently milling trains 1 and 2 each consist of three mills, a SAG mill, and two associated ball mills. Milling train 3, on the other hand, currently has a SAG mill and only a single ball mill, and the expansion will provide a second ball mill into this milling circuit, hence making all three milling trains identical. The picture on this slide shows the progress to date on the second ball mill for milling train 3.

The third part of the expansion project is a new screening facility which will receive primary crushed ore and will separates fines to a size which can report directly to milling, with only the separated larger size material to be presented to the existing secondary crushers, which will allow for very efficient crushing. This circuit will also complement our ongoing blast optimization efforts.

Part of this screening work will also include the addition of two new bypass bins and feeders into the existing secondary crushing circuit, which will allow 100 percent of the plant feed to bypass secondary crushing if required, hence providing additional operational and maintenance flexibility.

All of the Cobre Panama 100-million tonne per annum expansion works are scheduled to be completed in Quarter 1 2023, and that the mine will be operating at a 100-million tonne per annum rate from 2024.

In terms of other site projects at Cobre Panama, we plan to construct the molybdenum plant in 2023 once the 100-million tonne per annum expansion project is complete. The moly plant is already designed and delivered to site, the concrete has been poured and the equipment simply needs to be installed. At 100-million tonne per annum throughput, we expect to produce around 3,000 to 4,000 tonne of moly and concentrate. The payable percentage is expected to be around 80 percent at a concentrate rate of approximately 50 percent. This will have a positive impact on our Cobre Panama C1 costs of around $0.05 per pound at current moly prices.

In terms of infrastructure, the existing shipping port is adequate for the expanded production volumes and logistics, however, we plan to expand the concentrate storage shed for additional buffer capacity. We are also examining upgrades to the loading terminal to allow for larger vessels and for easier vessel handling.

In terms of power, we have now secured the additional 60 megawatt to 80 megawatt of power required for the 100-million tonne per annum increment. This will be renewable power, sourced from the Panamanian grid, which Andrew will describe in more detail later in the presentation.

In terms of supporting infrastructure, the COVID pandemic highlighted the need to continue to invest in our people, and as such we will be building additional housing for our employees at site. One of the real benefits that we had in managing the travel challenges posed by COVID was that wherever possible First Quantum's approach is to have personnel residential rather than a fly-in/fly-out ex pat workforce. It is therefore important for us to make sure the living conditions and recreation facilities at site help with the attraction and retention of staff. With this in mind, we are planning on investing around $100 million over five years in new facilities and accommodation upgrades at Cobre Panama, all of which is included in our capital guidance released yesterday.

This slide shows our tailings facility and it has been pleasing to see the recent progress which has it well positioned to handle the increase in tailings volumes due to the expansion.

The TSF has progressed from the initial starter wall design which linked a number of small gulleys to create a tailings impoundment, through to the commissioning of the sand preparation and placement systems which are required for ongoing construction of TSF walls throughout the life of the operation. This necessitated going through the demanding early period of raising and linking together the multiple starter walls with the sand to create continuous embankments on the north and east sides of the TSF. These two embankments will continue to be raised as required to manage process plant production levels. Planned future levels of process plant production are managed utilizing just two-thirds of the available sand preparation facility, leaving significant spare sand production capacity available.

On the mining side, this slide shows the pit development over the mine life of Cobre Panama. The Botija Pit is now well established and work is currently underway to develop the Colina Pit, so that Cobre Panama has the flexibility of mining from two pits when its throughput expands to 100-million tonne per annum. Based on work completed on resource drilling and project planning, redesign of the pits has resulted in merging of the Medio and Colina Pit and waste dumps. In 2021, we completed the diamond drilling program at the Colina Pit and placed over 10 million tonnes of fill in the corridor which will be

used for the overland conveyor that will service Colina. We also cleared the access road for the project area at Colina and began work on the in-pit crusher box cut. Development of the Colina mine will continue through 2022 and 2023, with initial ore feed commencing in 2024. The mining techniques and production strategy will be the same as employed at Botija, and both mines will be worked simultaneously from 2025 onwards.

An update of the sequencing and production profile for Cobre Panama, together with an increased resource and reserve, will be included in a new 43-101 technical report which will be released later this year.

Ramping up Cobre Panama during the pandemic was not a small endeavour and as one of the largest new mines opened anywhere in the last 10 years, we are very proud of what we have accomplished at our newest operation. Cobre Panama was always built with a expansion in mind. This expansion is now well underway with construction already around 35 percent complete. We expect this expansion to cost $450 million in the guidance period. We are very excited about this next phase of growth for the operation that will add another 50,000 tonnes to 60,000 tonnes of annual copper production at our cornerstone asset.

I will now hand it over to John Gregory to discuss S3 and Enterprise.

John Gregory, Group Mining Engineer

Thanks very much, Zenon.

Before getting into our Zambian projects, I wanted to take a moment to outline the First Quantum approach to the development studies and how we design our projects.

Our approach emphasizes flexibility and avoids rigid assumptions, where the design of the project, usually the processing facilities, are defined and locked in at an early stage of development. Such flexibility allows us time to think and better interpret and create the scope and scale because we can learn about the region, the communities, the ore bodies, and better understand the variables that will be encountered during the development and design of a new mining project.

In our view, it's quite different from a typical engineering style EPCM feasibility study, but it tends to exhaustively quantify every aspect of the operation at a very early stage, and usually results in providing false comfort, ignores non-engineering parameters, which adds to the risk of project, both in terms of time and cost, as the rationale behind the various assumptions that are typically unknown, and result in flaws and errors that are often only discovered too late.

A First Quantum study is a concise document that outlines how the operation will be developed and subsequently worked, and is based on a few Golden Rules. First, we walk the ground, we listen and we understand the local content. Secondly, understand the geology, the geometallurgy, the geotechnical characteristics of the ore zone and its geological settings. Then establish the mining method and decide the production parameters and profiles and their likely outcomes. In parallel to this, it's critical to understand the needs and concerns of the communities and the local authorities.

In essence, we scope the project. There is limited engineering design undertaken until the ore body and production profile is well understood. Our view of that is that there is a danger in being too quantitative too early. Also, the initial focus needs to pay attention to numerous soft issues including logistics, accommodation, industrial relations. Our focus then turns to the processing and infrastructure needs of the project.

At the core of our strategic development thinking, we look to keep an open mind, cast a broad net over key aspects, identify what we know, and more importantly what we don't know, and concentrate on simple, practical solutions.

Let me now turn to Kansanshi and the S3 expansion.

The Kansanshi Mine has been the cornerstone asset for First Quantum for 15 years and the remarkable nature of the ore body means that we expect it to continue to be a key part of our business in the decades ahead. The approach to how we study and build projects, as Zen and I have outlined, has been critical to the success of Kansanshi.

The ore body is complex and the Kansanshi processing plant was designed to operate with a high degree of flexibility to suit the various ore types. The current three main process routes independently treat sulphide ore, what we call mixed ore, which is transitional, and oxide ores.

Kansanshi began operations in 2004 with a 4-million tonne per annum oxide circuit and a 2-million tonne per

annum sulphide circuit. These facilities have been incrementally expanded through significant plant upgrade over the years, and now Kansanshi has a capacity of over 28 million tonnes per annum comprising 7-million tonne oxide circuit, 8 million mixed circuit and 15 million tonnes for the sulphide circuits.

As the Kansanshi mines expand, wider, deeper and longer, the near-surface high-grade oxide decreases, however, the volume of the sulphide ores increases with depth. So to set the mine up for the next 20 years of production and to take full advantage of the vast sulphide ore reserves, the mine will transition from the current, more selective high-grade medium scale operation to a medium-grade, much larger scale mining operation.

This expansion, which we refer to as S3, will involve a new larger mining fleet, a standalone 25-million tonne per annum processing plant that will drive increased efficiencies and economies of scale. This transition will result in Kansanshi, both in terms of mining and processing, looking a little bit more like Sentinel and also Cobre Panama. In fact, the envisaged new S3 processing training, comprising a 28 megawatt SAG mill and a 22-megawatt ore mill, will be similar to the trains we've installed twice at Sentinel and three times at Cobre Panama.

The expanded mining fleet will use similar ultra-class equipment as the other key mines, and will benefit from new electrical loading and drilling equipment, plus, the extension of the current trolley assist infrastructure.

And just to confirm, the introduction of S3, the total processing capacity at Kansanshi will lift to a very impressive 53-million tonnes per annum.

As with Sentinel and Cobre Panama, the S3 plant will be fed by an overland conveyor, receiving ore from in-pit, semi-mobile gyratory primary crushers.

Referring to the property map on this slide, mining at Kansanshi has until now been carried out in two areas, the Main Pit and the Northwest Pit. Although, more recently, these two areas have joined together.

S3 will involve a new mining area which we refer to as the Southeast Dome, which although will commence as a separate pit, will in time also join the main zone. Extensive test work shows the ore feed from the Southeast Dome displays the same geological and metallurgical characteristics as the current ore we are treating.

As well as the Southeast Dome, the current pits will also be expanded in order to meet the additional requirements of the expanded Kansanshi operations, and include major cutbacks in the Main Pit to the south and west, which will ultimately join with the Southeast Dome.

The S3 expansion will allow the multiple sources of ore to be mined and subsequently fed into respective processing trains. This will reduce the amount of ore rehandle which currently occurs at Kansanshi; hence, mining operations will become simpler, more practical and far more efficient.

During commissioning and in the early years, S3 will be supplemented by ore coming from existing surface stockpiles and this reduces the overall need for pre-strip requirements in the near term.

The mining fleet will be expanded to increase mining capacity from 50 million to 80 million BCM (phon) per annum. Mining cutbacks and working areas are designed for both mining methods to be employed, utilizing large scale, efficient equipment for pre-strip and bulk mining waste activities. All the major haul routes from the deeper and the upper parts of the mine will run to the respective treatment plants as well as the waste dumps, and all are designed to have trolley assist installed which will significantly reduce operating costs and lower greenhouse gas emissions.

Turning to the S3 plant itself, as you can see from the picture on this page, a significant portion of the initial construction works has previously been undertaken. Much of the civil and structural work onsite has been completed, including extensive foundation piling, construction of the stockpile tunnel, mill structure plus the concrete foundations for most major equipment. The work remaining includes completion of the civil and structural works, procurement and installation of equipment, electrics, controls and infrastructure.

Kansanshi is fortunate to have its own smelter, which subsequently reduces logistics and treatment charges for both Kansanshi and Sentinel. The Kansanshi smelter is one of the newest operating smelters globally, excluding those in China, and equipped with state of the art infrastructure sourced from industry-leading vendors.

In parallel with the expansion of the mine and the processing facilities, we will also increase the throughput capacity of the Kansanshi smelter.

Current capacity of 1.38 million tonnes per annum of copper concentrate will be lifted to 1.65 million tonnes and this in turn will enable the smelter to produce over 400,000 tonnes of copper anode each year.

There are two other benefit of this smelter expansion. Firstly, it will provide greater flexibility should smelter capacity constraints in the copper belt rise. Secondly, it will produce additional sulphuric acid as a low-cost by-product.

To expand the smelter, the existing ISASMELT furnace will require additional cooling to handle this additional throughput. The proposed new cooling system has already been successfully used in other high-temperature furnaces around the world. We will also expand oxygen production and add an ISACONVERT furnace.

In order to manage the process and process the incremental increase in sulphur, we are also studying the need to modify our mothballed sulphur-burning plant which is situated adjacent to the smelter site.

The oxygen plant expansion has further benefits as it will support an increase in throughput from the high-pressure leach treatment plant which will, in turn, enhance our concentrate treatment opportunities.

Board approval for S3 is subject to successful discussion with the Zambian government. Tristan will discuss this in more detail later.

We are hopeful that in 2023 and 2024 the majority of the remaining construction of the S3 plant can occur together with an increase in pre-strip activities, to allow the first S3 production in 2025.

The S3 expansion is another example of the growth opportunity within First Quantum, which benefits that lever off the existing infrastructure, the mine facilities, workforce and the wide community. The S3 expansion will extend Kansanshi's mine life to well beyond 2040 and will have multiple benefits, including the increase in Kansanshi's annual production by some 50,000 tonnes to 70,000 tonnes of copper, whilst also contributing to the government of Zambia's target of 3 million tonnes of domestic copper produced over the next decade.

Staying in Zambia but moving to the next brownfield project and another commodity is our Enterprise projects. Enterprise is located 14 kilometres northwest of Sentinel and is a low-cost, high-grade nickel sulphide project, and is very well positioned to benefit from the projected growth in the battery metals demand.

When we built Sentinel we also wanted to maximize our opportunities in the nickel space. On this slide you can see that the Enterprise 4 million tonne per annum circuit was largely constructed when we built the Sentinel processing complex. Interestingly, the rougher and cleaner flotation cells within the nickel circuit were commissioned and utilized temporarily to process copper ore during the early days at Sentinel.

Also at the same time of construction, the upper portions of the proposed Enterprise starter pit were exposed to test pit wall stability and understand the hydro geology. As we now turn our attention to the start-up of Enterprise, this initial pre-strip has allowed recent opportunities for confirmatory drilling, geotechnical and hydrogeological investigation, and further metallurgical test work.

The Enterprise Mine will consist of a single main open pit and one extension to the Southwest. The nickel mineralization occurs mainly as sulphide disseminations and veinlets.

The pit will be mined using conventional drill and blast, excavator and truck mining methods, adopting 5-metre high ore and waste benches. Under full scale operations, mine waste will be loaded by 250-tonne excavators and 100-tonne trucks, which are a significantly smaller fleet compared to the ultra class fleet at Sentinel. Waste will be hauled to external dumps located to the north and the east of the pit, and the ore to the surface ROM pad on the south side of the pit, before being hauled by road to the nickel circuit located at Sentinel.

Once crushed, the ore will be milled in the SAG ball milling circuit, incorporating pebble crushing, which as mentioned, are all currently installed. The product will then be floated in a circuit comprising talc pre-float, followed by nickel rougher flotation and three stages of cleaning.

Once thickened and filtered, the product will be stored in a dedicated standalone nickel concentrate handling facility. This is also being constructed. The tailings will then be pumped to existing thickeners and then on to the Sentinel tailings storage facility. Current test work indicates recovery rates of 85 percent for primary sulphide and 60 percent for nonprimary sulphate, and provides a final concentrate grade range between 14 percent and 16 percent nickel.

Our nickel concentrate will be transported by truck to the port at Walvis Bay in Namibia, or some other South African port that First Quantum are all very familiar with, from where it will be exported by ocean freight to offtakers that include major nickel smelting operations in Canada, Europe and China.

Considering this high value product that comprises low levels of co-payable metals, deleterious components and with exceptionally low magnesium oxide, hydrometallurgical refining operators will also likely be interested. There has been strong indicative interest from most of the major nickel smelting and refining companies due to the quantity and grade of this high quality product.

So, considering that Enterprise nickel concentrate can be treated via the conventional smelter route, and/or via hydrometallurgical refining, it means that Enterprise nickel is well positioned in that it can be supplied via several routes into most metal markets, including stainless steel and the electric vehicle and battery metal markets.

During 2021 work on Enterprise saw the completion of an RC drilling campaign which targeted the improvement of the upper parts of the geological model, and provide samples for further confirmatory geometallurgical test work. We also completed the development of the surface water control dams, insulated the water treatment facilities, and in fit water pumping and pipeline, as well as completing the power line extension from Sentinel to Enterprise.

Subject to Board approval, the main workstream to bring Enterprise online will be the pre-strip of waste. This is expected to take 12 months. In parallel, mine facilities will be installed including the satellite administration office, workshop, fuel storage and other facilities. The ROM pad will be constructed and the haul road will be upgraded. Plant refurbishment, completion and commissioning will also be undertaken during this period.

These works are estimated to cost $60 million and are included in our guidance as released yesterday.

So the business case for Enterprise project is compelling. With most of the process plant built and therefore has little exposure to current inflationary parameters, and the remaining capital spend largely targeting stripping, will also benefit from the existing infrastructure and skilled workforce at the Sentinel Mine.

Once Enterprise is operational, it is expected to produce an annual average of 30,000 tonnes of nickel in concentrate per annum. There is an added benefit to Enterprise; the operation has the ability to target higher grade portions of the ore body, hence increasing production should the nickel cost spike at any time during the life of mine.

The 30,000 tonnes of nickel will place Enterprise as a Top 10 nickel sulphide producer. And together with our Ravensthorpe nickel mine, which we will continue to ramp up following the completion of the Shoemaker-Levy project in Quarter 4 last year. First Quantum is expected to become a Top 10 global nickel producer.

I would now like to hand back to Zenon who will provide an overview of our fourth brownfields project, the Las Cruces Underground Project.

Zenon Wozniak, Director, Projects

Thanks, John.

At our Las Cruces Mine in Spain we completed mining of at the open pit in 2020 and moved on to reprocessing high-grade tailings in 2021, which will continue into 2023. This retreatment project has the benefit of not only producing some low-cost copper, but more importantly, keeping the existing team in place as we advance work on the Las Cruces Underground Project. This project will involve supplementing the existing copper facilities at Las Cruces with new processing capacity for zinc, silver and lead. These new facilities are required as the underground project will mine the polymetallic primary sulphide ore body which is below the now mined-out secondary copper sulphide ore body.

The Las Cruces Underground Project has several notable benefits. There is a highly skilled, existing team in place that has learnt key lessons while operating the open pit phase of the project. In fact, many of the leadership team at Las Cruces have worked there since its original commissioning in 2007.

Secondly, the project will be a very low carbon emitter. Power is expected to be purchased under PPA from solar projects and steam by biomass, and because it will produce cathode, Scope 3 emissions will be minimal. This combined with EU's current focus on supply chain security for transmissions metals is one of the key reasons that the project has received strong local and federal government support.

In addition, the mine will be using the innovative rail-veyor system, an electrical hauling system taking ore directly to the plant crusher, further reducing emissions.

The project benefits from significant existing infrastructure as Las Cruces. The project will leverage the existing Las Cruces process plant which will be used for copper and zinc leaching, copper recovery and effluent treatment. This represents over $800 million of invested capital which will be used by this project.

Critically, there is also 5 million tonnes of primary ore stockpiles which were mined as part of the open pit mine. This means the underground mine already has two years worth of production already mined.

The project also has a strong licence to operate. All environmental permits and the mining permit for the project have been received. Key pending authorizations are those related to water management, which are expected to be granted in 2022.

Las Cruces also has strong relationships with the surrounding communities given the strong ESG focus that the mine has operated with for more than a decade. More broadly, as many mining tax regimes are under pressure in various parts of the world, and stakeholder management becomes an increasing focus, Spain has proven to be a good place to operate from both the local community and government perspectives.

The project benefits from the significant metallurgical test work conducted to date. This began in 2014 and lasted five years. On this slide is a picture of the 24-tonne per day pilot plant which we refer to as the poly metallurgical refinery, or PMR, that was built in 2016 to validate the chosen process flow sheet. This will consist of grinding, bulk flotation, copper and zinc sulphate leaching, silver and lead chloride leaching, silver recovery and lead recovery.

The PMR technology, which uses silver present in the ore body as a catalyst in the process, makes it possible to obtain higher recoveries and payables from sulphide ores, so it may also be possible to recover metals from ore bodies that currently are not profitable, or from streams which are at present discarded as tails in the conventional flotation processing plants at the other mines in the Iberian Pyrite Belt.

We conducted a drilling campaign in 2021 at Las Cruces and released the first 43-101 resource on the primary sulphide ore body yesterday evening. The total Measured & Indicated Resource tonnage is 36.3 million tonnes with a 2.5 percent copper equivalent grade, and remains open at depth and to the Northeast. It is worth noting that on a copper equivalent basis contained copper is approximately 900,000 tonnes, similar in scale to the original open pit ore body. A long-haul open stope mining approach will be used with access via a twin decline.

Expected production from the underground mine is in the region of 2 million tonne per annum.

Indicative capital of the project would be in region of $600 million for a three-year to four-year construction to produce around 45,000 tonne per annum of copper equivalent production.

These estimates are still at an early stage and require additional work as the project design is refined. Work in 2022 will focus on advancing the design of the underground mine and the plant, obtaining the water concession and release of an initial reserve.

Given the work still required, the project is not included in our guidance, but we are hopeful that 2022 can be the year where technical and permitting work is completed for this project which would position it well for 2023.

I will now hand over to John Dean, who will talk through our two greenfield projects, Taca Taca and Haquira.

John Dean, General Manager, Americas

Thank you Zenon.

Whilst our current focus in terms of capital allocation is on brownfield projects, we continue to work on our longer-term growth projects, namely the Taca Taca and Haquira projects.

Taca Taca is the more advanced of the two projects and is one of the largest, highest quality copper projects globally. It will consist of a large open pit copper mine and ore processing plant to produce up to 275,000 tonnes per year of copper along with gold and molybdenum by-products.

With an initial mine life of 32 years and a large resource base, and C1 costs of less than $1.40 per pound, Taca Taca is both long-life and low-cost. The project is located in the Salta Province of Argentina, and Salta in particular is increasingly seen as a key jurisdiction for mining

investment. In the Fraser Institute's 2020 Annual Survey of Mining and Exploration Companies, Salta was ranked 23rd in the Investment Attractiveness Index, placing it ahead of all other provinces in Argentina and making it a leading jurisdiction in Latin America.

From an investment perspective, Taca Taca offers an attractive early grade profile with average copper grade of 0.63 percent for the first 10 years, along with gold and molybdenum by-products. The slide here shows the production profile as per the 43-101 report published in March last year. The project also benefits from relatively low capital intensity with an expected capital cost of $3.6 billion.

Project design and execution will be de-risked through building on First Quantum's experiences and lessons learned on previous projects. The two parallel milling circuits at Taca Taca, for example, will be the sixth and seventh similar circuits built and installed by First Quantum, following on from our experiences at Sentinel and Cobre Panama. In addition to sharing mill sizes and configurations, Taca Taca will also use similar electric powered ultra class mining fleet and electric trolley assist.

The project is located in a remote, uninhabited area at 3500 metres above sea level and the site benefits from a relatively neutral environmental and social framework with no current productive land uses, limited precipitation, sparse vegetation and wild life, and no settlements within 35 kilometres of the site.

In addition to the mining and processing facilities, the project also incorporates waste rock and tailings storage facilities, a new electrical transmission line of 125 kilometres, and water supply from regional borefields. Project infrastructure also includes a new access road and rehabilitation and upgrades to the existing railway line that runs between Taca Taca and the Chilean ports near Antofagasta.

Several important features have been incorporated in the project design for improved safety and environmental protection. Following a detailed analysis of alternatives, new and safer locations were selected for tailings and waste rock storage facilities. These facilities will be placed on flat areas at the lowest elevation in an evaporative basin with no downgrading at landforms, no communities, minimal flora and fauna, and no contamination risk to any freshwater sources. The tailings storage facility incorporates a long life, low height and low risk embankment, and a curtain of bore holes around the waste rock facilities and tailings embankment will provide regular monitoring and potential abstraction of hypersaline water for use in the mine.

Given Argentina's rich endowment of solar and wind energy sources, options are available to source up to 100 percent of the project's electricity needs from renewables or from a combination of renewables and Argentinian natural gas.

Greenhouse emissions will be further reduced through application of First Quantum's industry leading electric trolley assist for haul trucks.

Water for the project will be sourced from multiple regional borefields to ensure sustainable abstraction with increased aquifer storage, precipitation and recharge capacities. These borefields are hydrologically separate from community water sources.

These factors, together with First Quantum's high standards for safety and environmental protection, which Andrew will discuss in more detail later, position Taca Taca to be a leader for the next generation of sustainable and responsible copper projects.

In terms of permitting, the primary approval required for the development of Taca Taca is the Project Environmental Impact Assessment. This application was submitted in 2019 and following engagement with the authorities, the Company is providing additional details on geotechnical and geochemical aspects. Approval of the ESIA is now anticipated later this year.

Two additional environmental permits were filed with the relevant authorities last year, including one for the transmission line to connect the project to the national electrical grid, and another for the proposed bypass and access road construction for the project. The project will also require approval of a concession for borefield water supply. The Company is completing additional water supply studies and fuel tests this year in advance of this permit application. This work includes drilling and pump testing boreholes with subsequent borefield design, aquifer modelling and simulation of long-term pumping. A program of sterilization drilling of the deposit and extensions is also planned this year to assist with definition of pit limits and site layouts for facilities.

Beyond permitting, the main area of focus is engaging with government to put in place a fair and predictable administrative and fiscal regime for the mine. Key topics at the Company and the broader mining industry are looking for regarding the investment case in Argentina

include export taxes, foreign exchange restrictions, VAT, and fiscal stability. The industry and government are working towards a win-win solution to these aspects to complement the generally robust legal framework for the industry provided by the Argentinian Mining Code and the mining investment law.

There is certainly a growing appreciation that Taca Taca and other copper development projects could play a vital role in driving economic recovery in Argentina if the right conditions for investment can be established.

That said, we have committed to not make any decisions on Taca Taca until 2023 or 2024 as we focus on deleveraging our balance sheet. This gives us the time to establish the right conditions for investment in this project prior to making any large capital outlays.

As Tristan outlined, First Quantum's commitment at Taca Taca and globally is to work in partnership with host governments and community stakeholders to ensure the operations provide a broad range of economic and societal benefits whilst minimizing environmental impacts.

Through this collaborative approach, Taca Taca is well positioned to become an engine for social and economic prosperity in Argentina, and a high quality, long-term operation for First Quantum.

On to our longer-dated greenfield project, Haquira in Peru.

The M&A Resource stands at 3.7 million tonnes of contained copper equivalent plus an Inferred Resource of 2.4 million tonnes of copper equivalent. This would make Haquira comparable in size to Sentinel and we remain optimistic about further potential of the ore body. Following a period of establishing environmental baseline monitoring processes, a program of 35,000 metres of diamond drilling is planned to commence this year. Drilling is anticipated to continue for about two years, utilizing two to four drill rigs. The program will upgrade resource confidence and assist with mine planning and scheduling. The program also includes drilling possible extensions and near-mine satellite targets. These targets include undrilled zones of mapped porphyry alteration and multielement geochemical response consistent with the porphyry target footprint.

In parallel with drill planning and establishment of environment baseline monitoring programs, a dialogue with community leaders at Haquira has been underway for several months and will continue as drilling progresses.

The concerns and issues raised during this community engagement process will be incorporated into an infrastructure layout plan that will focus on identifying mutually beneficial solutions to the coexistence of mining and local community activities. Although Haquira is located in a sensitive region in Peru from a community perspective, we will take the time to build the right relationships in the right way during the years ahead before any decision is required to invest significant capital in this project.

Thanks, and with that I'm ready to hand it back over to you, Tristan.

Tristan Pascall, Chief Operating Officer

Thank you John. With that, we will be happy to take any questions on the topics that we have covered so far today in the presentation.

During the second half of the event, we will cover ESG including our greenhouse gas reduction targets, and our plans for the power station at Cobre Panama. We will also discuss the status of discussions with the government in Panama and in Zambia, and the implications for the projects there, together with our new dividend policy. As such, we would appreciate if you could hold off questions on those areas until the second Q&A session.

Operator, please can you open the line for questions.

QUESTION AND ANSWER SESSION

Operator

Certainly. Thank you very much. We will now take questions from the telephone lines. If you have a question and you are using a speaker phone, please lift your handset before making your selection. If you have a question, please press star, one, on your telephone keypad. You may cancel at any time by pressing star, two. Please press star, one at this time if you have a question. There will be a brief pause while the participants register for their questions. We thank you for your patience.

And our first question is from Orest Wowkodaw from Scotiabank. Please go ahead. Your line is open.

Orest Wowkodaw, Scotiabank

Hi. Good morning. Tristan, I'd love to get some colour, if we could, on your guidance upgrades at Cobre Panama. Specifically, you increased the guidance for 2023 relative to what you had issued a year prior. Obviously the '24 guidance looks very strong. I'm just wondering if you can explain what's changed there. Is it just more confidence in the throughput or are you seeing upside to the grade? Any colour would be appreciated.

Tristan Pascall, Chief Operating Officer

Thanks Orest, and hi.

Guidance for next year and for the coming years is really built around the platform that we've built, and now having a year of continuous production underneath us we believe we understand the mine plan there well. We do continue to drill around the neighbourhood and so in terms of delineation for Colina we are continuing to find more mineralization, but in terms of our confidence around throughput and grades in Botija is very strong, and so that's really—it's the level of confidence more than anything else. As we turn to '23 and we get the additional installation of Ball Mill 6, the screening plant and the process water upgrades we will see processing capacity and some of that we will get through. For example, we expect to get the third secondary crusher installed this year and that will give us capacity this year. But really around increasing confidence and understanding in Botija.

John, would you add any further comments there?

John Gregory, Group Mining Engineer

Yes. Tristan, I think the confidence is there, certainly, and our ability to plan and identify our mining regions has improved. We certainly understand that better, and also, our reconciliation has been exceptionally positive, which has led us to modify some of the dilution and grade parameters that we'd previously used.

All in all, the increase in copper is due to confidence, enhanced working areas and a better understanding of the grade profile.

Orest Wowkodaw, Scotiabank

Just following up on that, do you think this is a pervasive confidence? You mentioned earlier that there's going to be a new life-of-mine technical report coming out for Cobre Panama later this year. Do you see potential upside life-of-mine, or is this specific to where you are currently in the pit?

John Gregory

The updated 43-101 really will draw on the additional drilling that we've undertaken at Colina East and the area that we know as the Medio Zone. We have identified additional mineralization in that area which has allowed us to confidently increase the overall resource in that area, which has lifted the mine life resource base, and we're currently looking at what impact that has on the reserves. Positively, much of it does flow through to the Reserve.

We are currently finalizing those parameters. The grade profile is much the same as we have already reported for the Colina zones, but also the 43-101 will give a far better—will give an update on the production schedule, the production profile and also the timings, the detailed timings for Colina and the expansions that we've discussed today.

Orest Wowkodaw, Scotiabank

Okay, thank you. Just a small follow-up if I could. At the Enterprise nickel, can you give us an update on whether there is still an export tax out of Zambia on concentrate? Or was that removed in one of the budgets?

Tristan Pascall, Chief Operating Officer

Orest, as far as I recall that was removed, the specific export levy on concentrate. Yes, but as we said before, Enterprise not yet approved but very constructive conversations as they are across on the S3 project as well with the new Zambian administration.

Orest Wowkodaw, Scotiabank

Thank you.

Operator

Thank you. As a reminder to participants with the webcast asking questions over the phone, we please ask to mute your webcast when asking your questions. Thank you for your collaboration.

The next question is from Greg Barnes from TD Securities. Please go ahead. Your line is open.

Greg Barnes, TD Securities

Thank you. Tristan, I just want to drill down a little bit on the growth capital guidance and understand some of the numbers that were released last night. Specifically, the $450 million for the Cobre expansion, the 100 million tonne per annum expansion, how much of that has been spent already and how much of that will be spent this year and next year?

Tristan Pascall, Chief Operating Officer

Sure, Greg. Thanks.

The 450 is ahead of us and Zenon can comment further, but really we have made progress and you saw the photograph of the Ball Mill 6 area, the concrete that's been cast there, so those platforms and plants in place. And I think we said around 37 percent progress on that area.

Zenon, you might just give an update as to how we're going and some more detail around our Capex.

Zenon Wozniak, Director, Projects

Thanks, Tristan. Hi Greg. It's been a while.

Greg Barnes, TD Securities

It has.

Zenon Wozniak, Director, Projects

Be good to catch up one day. But anyway, good to chat and have some questions.

Around that Capex figure of the $450 million, there's three broad categories. Part of it is for process plant expansion. Part of it is for developing the Colina Pit, and part of it is for additional fleet, mining fleet.

As we said in one of the slides, we're well into construction and you saw the pictures. Probably about 35 percent complete in construction of the processing plant facility. In terms of that, we've probably committed—just having a quick look at the numbers I've got in front of me—probably committed something in the order of about $125 million to $130 million of the $450 million, plus there's some mining work ongoing as well which maybe John Gregory would comment on. But from the processing plant, probably about a third of that figure has been committed and about 35 percent progress.

Greg Barnes, TD Securities

Okay, and Zenon, the $450 million the bulk of that will be this year, I assume, if you're going to ramp up starting early next year.

Zenon Wozniak, Director, Projects

Correct. There's still work going into Colina next year, but the bulk of the process plant, which is one of the three portions of the 450, the bulk of that will be this year and early next year because not all the invoices get paid this year, for example, so you get some tail going into next year. Then Colina will continue to be developed next year as well, and taking that overland conveyor, etc., into Colina, more of that would be next year.

Greg Barnes, TD Securities

Thanks, Zenon. Maybe I'll turn to John Gregory then. On the S3 expansion, it is basically the same question. Just trying to understand how the Capex flows over the next two or three years of the $900 million, including the pre-strip of the Southeast Dome. One place it says $100 million for that and then another place it says $350 million. I'm just trying to reconcile all of that so I have a

better understanding of how the Capex slots in over the next several years.

John Gregory, Group Mining Engineer

Hi Greg. For S3, if we take our position now, we'd be looking at the majority of the infrastructure and the processing facilities, the spend for that would be in '23 and '24 with commissioning at the end of '24, so that come '25 we have full capacity.

The mining fleet needs to be expanded and we are currently looking at options on that. We would need to make initial commitments later on this year. Delivery timelines are much the focus on that, but as I mentioned we would have a start-up utilizing surface stockpile medium-grade sulphide feed which actually reduces the quantum of the pre-strip required for the full S3 itself.

In terms of the capital numbers, the pre-strip, the larger figure that you mentioned refers to the five-year outlook, whereas the $100 million refers to the guidance period that we are referring to at the moment.

Greg Barnes, TD Securities

Okay. And the $900 million, John, does that…

John Gregory, Group Mining Engineer

The same for the 900. The 900 is across the four years and the 700 is across the guidance period.

Greg Barnes, TD Securities

Okay. Okay, I'll pass it on. Thank you.

Operator

Thank you. The next question is from Jackie Przybylowski from BMO Capital Markets.

Jackie Przybylowski, BMO Capital Markets

Thanks everybody for doing this. I really appreciate it. It's been great so far.

My question is on the Las Cruces Underground Project. I guess I just wanted to ask what your thought process was for not including that in the guidance so far. I know you mentioned you've been working on this since 2016 and I think I went to visit the site around then. I remember it was already pretty well contemplated, at least at the point of that site visit.

I recognize the permits aren't all in and you still have some work to do, but it doesn't seem to me, at least from the outside, to be any less risky or more risky than the projects that you've got, Kansanshi, S3, Enterprise and the Cobre Panama expansion. Why not include Las Cruces in the guidance but include those other ones? Can you give maybe just a thought on that?

Then I guess as a follow-up, are you planning to put that in the guidance for next year, like 12 months from now, or is that something that you could issue sort of a midyear update on? Thanks.

Tristan Pascall, Chief Operating Officer

Thanks, Jackie. The principal answer there is we don't consider it's quite ready for that decision from the Board, whereas the other projects are really at that phase where it could go to the Board immediately for a decision. That's really the reason.

Las Cruces, we like the project and we spoke about the level of certainty around permitting and the environment around there. The workforce there is certainly very strong and extremely capable. What we would like to see is over the next 12 months that we build particular understanding in the mine planning, and John could comment there a little bit more, but it's really around getting to the ore body through the declines and establishing and that. That's always, that transition from open cut to underground is important. It's important that it's given the consideration that it needs, but otherwise, you are right. It's a good environment for the project.

The capital intensity there we have been watching. It is closely linked to copper price and market forecast for that, and closely linked to the exchange rate for the euro. Those are very important considerations for Spain. But otherwise, there's a lot going for the project.

John, you might just comment more a little bit on the mining side of things.

John Gregory, Group Mining Engineer

Hi Jackie. Look, one of the reasons that we've issued the mineral resource technical report is that we are not in a position to actually define the reserve at this stage. We're getting very close, and it is to do with the underground mine scope, the development. Hydro geology is one area, geotechnical; we are running a whole series of assessments at the moment.

I think once we do have something that we can define as a reserve we will have a cost profile, both in terms of capital and operating, and once that is determined then we would be looking at updating the technical report. Plus, then it becomes closer, as Tristan has said, to coming into our guidance profile.

Jackie Przybylowski, BMO Capital Markets

That's super helpful.

Tristan Pascall, Chief Operating Officer

Jackie, I think the other comment we would make overall is a project of this scale requires just as much effort as does, say, the brownfield expansion at Cobre Panama in terms of engineering efforts, and it's very important that we give it the full commitment and the full application of people's attention. So, we are also cognizant of making sure that we stack it in the right sequence amongst the brownfield projects so that it gets the full attention it deserves.

Jackie Przybylowski, BMO Capital Markets

That makes sense. Thank you, Tristan. Thanks John, I appreciate that.

Operator

Thank you. The next question is from Lawson Winder from Bank of America Securities. Please go ahead. Your line is open.

Lawson Winder, Bank of America Securities

Hi everybody. Excellent update and thank you so much for this.

Maybe where I'd like to start is on Kansanshi. It just seemed to me that the 2024 gold production was lower than the feasibility study. That's all well and good, but just to what extent might that persist, or should we expect things to return back to what was forecast in the latest feasibility study?

Tristan Pascall, Chief Operating Officer

Thanks, Lawson. John, are you happy to take that question?

John Gregory, Group Mining Engineer

Yes, sure. Look, Larson, I think one of the things that we are experiencing at Kansanshi is that we might have predicted certain areas that we would be mining, certain cutback sequence that we've had to amend for various reasons to balance our material feed into each of the processing circuits. As that happens, our goals profile can sometimes vary.

What we're seeing is that as before S3 comes online, the mining sequence does get more complex and it is tighter, that once S3 comes online we will see those issues resolve, and we would expect to get back to a more standard profile, certainly of our gold but definitely of our copper.

Lawson Winder, Bank of America Securities

Thanks so much, John.

Another question on Taca Taca. Excellent presentation on that particular asset. I was interested to see that 2023 is now a possible decision point, but maybe it would be helpful just to get an idea of how early in 2023 could you potentially be in a position? I assume receipt of the ESIA would be part of that. Then also if you could maybe discuss work that's been done at sort of the federal level in terms of the export tax that's in place. There was a repatriation tax. I believe that might have actually been recently addressed, but just any comments you could provide with respect to that would be super helpful.

Tristan Pascall, Chief Operating Officer

Sure, Lawson. Thanks.

The work program for this year is to be on the ground in Argentina and to give this the effort that's needed. Certainly building towards a decision, I wouldn't expect it until late '23 or into '24, but John, you might comment some more on the detail and the effort that we plan to put in there at Taca Taca.

John Dean, General Manager, Americas

Sure. Thanks, Tristan. Lawson, I think that's right, Lawson. There is still a piece of work there with the government to get comfortable with the fiscal stability picture in Argentina and we're really just focused on that work for the rest of 2022 and going into 2023. That's a joint effort, really, at the industry level. We're engaging both directly with senior government officials at the federal level, but also in the provincial level and then also jointly with other predevelopment project developers to really emphasize the key issues there and the key things that the industry needs to see to get comfortable with major capital investment in Argentina. Those things really revolve around VAT recovery during the construction phase being one of them. The export duty that's in place in Argentina is a topic of concern, and the foreign exchange restrictions, and ultimately, really getting comfortable with fiscal stability there. There's a strong platform in the Mining Investment Law in Argentina.

Lawson Winder, Bank of America Securities

Thanks for your comments on that, John. Then just one final thing. I'd make a comment and attempt to ask a question.

I'd say congratulations for reaching (cross-talking)

John Dean, General Manager, Americas

… and it's just we're only partially covered by that.

Lawson Winder, Bank of America Securities

Okay. Thanks very much, John.

One final comment for me. I'd like to extend congratulations on what seems to be a concluded fiscal arrangement with Cobre Panama. I'm not sure if now is the right time to ask the question, but do you just have any sense of when that could be finalized and when an effective date might be?

Tristan Pascall, Chief Operating Officer

Thanks, Lawson. Yes, and thanks for those comments. We were going to push the questions on Law 9 in Panama to the second session of Q&A, only because I will give some comments and so on, and then invite questions at that time, if that's okay.

Lawson Winder, Bank of America Securities

Yes, that's totally fair. Congratulations on getting that—what seems to be concluded.

Tristan Pascall, Chief Operating Officer

Thanks.

Operator

Thank you. The next question is from Ioannis Masvoulas from Morgan Stanley. Please go ahead. Your line is open.

Ioannis Masvoulas, Morgan Stanley

I guess, hello. Thanks for the presentation. A few questions left from my side. The first two questions on Capex. It would seem that you could start spending at Las Cruces over the next one to two years. If we look at your business planning, is there any ceiling to your annual Capex budget until you hit your leverage target? Or is it completely driven by growth opportunities in the next couple of years?

Then related to that, from the discussion in the presentation today it seems that a number of capital equipment orders are yet to be placed across the different projects, whether it's related to fleet or other orders. Is your Capex guidance reflecting of these risks today or is there risk that we could see some further

inflation as you lock in some of these contracts over the next 12 to 18 months? Thank you.

Tristan Pascall, Chief Operating Officer

Thanks, Ioannis. We're going to give a lot more information around the capital allocation and so on in the second half. But certainly, on the Capex side and speaking of Las Cruces, the answer is that we don't see any major impediments in terms of the financial disciplines of the company for Las Cruces. But again, we'll give some more greater clarity in the next section.

But in terms of the orderbook, Zenon, you might just comment on some of the major equipment items that we have in place, what you're seeing in the market in terms of lead times and also our positioning there because I think it is a relevant question. Thanks.

Zenon Wozniak, Director, Projects

Yes, no problem. It is a very relevant question. Look, we've placed a lot of equipment orders. Some of our projects are in commissioning. For example, Sentinel in-pit crusher four is being commissioned at the moment. In some of the other projects, like the expansion of Cobre Panama which we said is about 35 percent complete, a lot of that equipment has been ordered and is now queued up for delivery or being delivered during this year, with this year being a strong construction year.

We continually go and update our figures because there has been quite a lot of inflationary pressure which you would have seen over the last one to two years. Area's copper has gone up, which is great. Steel has gone up. Freight has gone up. There's been a lot of areas where there has been cost pressures but what we have tabled now is our updated estimate.

In terms of risk going forward, nothing significant in terms of equipment ordering. Because as I say, a lot of that has been done. For something that hasn't commenced yet, for example, if we were to talk about an S3 or something like that, we have updated all of our Capex for current pricing and for current freight rates, etc. with some contingency and buffer. We think they're up to date and we don't believe that there's a serious risk. As I say, a lot of the equipment for what's in play at the moment has been ordered. Certainly, all the major equipment that's long lead, that's definitely been ordered.

Ioannis Masvoulas, Morgan Stanley

Okay, great. That's very helpful. Thank you. Maybe one more question on Ravensthorpe. Could you provide an update here? I mean, the guidance for '22 suggests a significant step up in production and far lower unit costs than what we saw in 2021. Leaving a tough year behind you, how confident are you in the guidance and especially around acid prices? Sort of portray if you could give us a bit of an update what's going to be changing there and how constant you are on the guidance. Thank you.

Tristan Pascall, Chief Operating Officer

Thanks, Ioannis. Yes, I think the major change is and certainly in the Q4 results that were put out in the near future give some clarity on Ravensthorpe in Q4. But certainly, the big changes we have commissioned the limonite circuit in the process plant and now going forward, all limonites into the process plant will come from Shoemaker-Levy.

What we have seen is immediately that material went in, we've seen the expected improvements in grade but also in materials handling. That's made a big difference to the circuit in terms of recoveries, in terms of the challenges we've had around handling material that some of the previous stuff from Hale-Bopp was pretty sticky and claggy at times. That's had an immediate impact and hence the certainty around that.

Ahead of us is a lot of delineation drilling that has already been done and we see those drill holes. We have that understanding of the pit in front of us at Shoemaker Levy and so there is some confidence that that continues on and hence the guidance there. But John, I'm not sure if you would add anything more there on the mine plan or Zenon on the progress but from here, we expect to be certainly improving the situation after, yes, what was a tough year at Ravensthorpe last year. (Multiple speakers).

John Gregory, Group Mining Engineer

For those that know Ravensthorpe and quite a few of you do, by moving to Shoemaker-Levy, it does give us the opportunity now to treat that haul that we know a) a lot

more about it and b) ability of this material that we have proven through test work in our production, the upgrade profile and master recovery data is certainly much more improved than Hale-Bopp. It's actually right at the top end of our expectation. We're actually very buoyed about the whole Shoemaker-Levy process as it comes online. The mine will continue for the foreseeable future for its life of mine.

Hale-Bopp did provide us with a lot of challenge. Because of the various timelines of the development of Shoemaker-Levy, we ended up staying in Hale-Bopp longer than we anticipated. That also amplified the improvement from 2021 to 2022. Zenon?

Zenon Wozniak, Director, Projects

Yes, just look, I'll add just a couple of things because I was talking to the guys at Ravensthorpe today and Shoemaker Levy is a step change from the tail end of Hale-Bopp. The tail end of Hale-Bopp basically was very fine material which was difficult to beneficiate and struggled to get density. Shoemaker Levy is very different. Now, the plant with the Shoemaker Levy ore, the limonite ore, is now operating much more in its design criteria envelope: good beneficiation, good density, and very positive. It's essentially seeing material that the plant was designed for. Whereas I think the tail end of Hale-Bopp was just very difficult material that may have been, to some extent, outside of the design window of what Ravensthorpe was designed for.

Ioannis Masvoulas, Morgan Stanley

Great, thank you very much.

Tristan Pascall, Chief Operating Officer

You asked about the sulphur price and just to comment there. Look, certainly as we've seen in the fertilizer industry, it is having an impact on fertilizer prices. It does have an impact at Ravensthorpe. We're thinking more strategically about that longer term, seeking longer term contracts, longer term offtake and in a structure that we'd share with some major producers. That's something we're working on actively. But yes, certainly the days of those very high sulphur prices we'd like to get those behind us for sure.

Ioannis Masvoulas, Morgan Stanley

Thank you.

Operator

Thank you. The next question is from Abhi Agarwal from Deutsche Bank. Please go ahead. Your line is open.

Abhi Agarwal, Deutsche Bank

Good morning, team. Thanks a lot for your presentation. I have a couple of questions, please. My first question is a follow up on the growth Capex. Can you walk us through the split of growth Capex for '22, '23, and '24? I.e., how much of the growth Capex is for Cobre Panama throughput expansion, Guelb cutback, and S3 expansion? Thank you.

Tristan Pascall, Chief Operating Officer

Hi Abhi. Sure. Capex for 20—which year, sorry, '22 or '23 did you say?

Abhi Agarwal, Deutsche Bank

For '22 and '23 please.

Tristan Pascall, Chief Operating Officer

For both, so I think we haven't provided a detailed breakdown between each of the sites but what we have given is the major projects. We've given you what Cobre Panama will be for the CP100 project, the 100 million upgrade at 450. Really, that's the majority of the Capex on the project side in 2022.

The majority of the Capex in '23 and in '24 is related to S3, and we've given you the total across for that project, which is $700 million for the main project works in the project capital side. Then in the stripping, which is included in the project capital is around $100 million across the guidance period for S3. Those were the major breakdowns we gave.

Enterprise, we gave you the Capex in 2022 and that's around $60 million. Guelb Moghrein is new capital that's been included and that's around $15 million for the cutback there in 2022. Yes, that's the main portions of project Capex across the years.

Abhi Agarwal, Deutsche Bank

Got it. Thank you. My second question is regarding the Taca Taca Capex number which we, I think we got from you in November 2020. It's still okay with the Capex guidance given back then. I just think inflation could lead to a step up in the Capex there.

Tristan Pascall, Chief Operating Officer

Sure, Abhi. Look, it's a reasonably up to date estimate as we put out the 43-101 at the end of last year. We won't address it at this time. Obviously, as we get closer to a commencement date, we will look at that more closely but it's reasonably up to date in terms of the forecasting that's gone in there. John, I don't know whether you would add any more to that.

John Dean, General Manager, Americas

Yes, that's right, Tristan. We're looking at $3.6 billion of total development capital and still pretty comfortable with that number. I wouldn't add anything else to that.

Abhi Agarwal, Deutsche Bank

Thank you very much.

Operator

Thank you. The next question is from Jatinder Goel from BNP Paribas. Please go ahead. Your line is open.

Jatinder Goel, Exane BNP Paribas

Thank you. Good afternoon and good morning. Two questions from my side. The first one, a strategic one. You mentioned both Salta Province and you've been present in the region for a long time. It's more of a hot spot for lithium. Is that something which would interest the company as well as a commodity and which route would you take if it does? Any thoughts there would be very welcome. Thank you.

Tristan Pascall, Chief Operating Officer

Hi Jatinder. Thank you. Yes, lithium is an interesting one for us. We do watch the space and obviously in terms of our diversification we are focused on brownfield in the near term and the greenfield projects, including Taca Taca in the longer term. But we do look around at diversification into other product commodities as well. Lithium is certainly interesting, and we think potentially the kind of nickel production that we will see from First Quantum in the next few years but there may be some synergies there in terms of producing more battery precursors, battery feeder metals, such as lithium.

It's something we look at but at the moment, the focus is on the brownfield development in the business and investments in our greenfield opportunities. But where we can deploy our capabilities and skills where we think they'll add value and think that they can drive benefit, then we will look at it but at this stage, our focus on our own portfolio.

Jatinder Goel, Exane BNP Paribas

Thanks Tristan. Another one, on Taca Taca, are you aiming to go solo on that project? I think a couple of years ago there was some media articles suggesting First Quantum and Rio Tinto looking at a potential partnership and I think the philosophy there was to share risk or wasn't financial and secondary operational size.

Tristan Pascall, Chief Operating Officer

Yes Jatinder, I don't know whether we referred specifically to Rio but certainly in the processes we've had and we've demonstrated at Ravensthorpe where we've been a partnership for 30 percent of the business with POSCO, that partnership perhaps before when we did Cobre Panama as sole self perform that we would look at that, particularly into new regions such as Argentina. John's outlined the areas that we're working on there is potentially a partner that can add value in our discussions with government or in terms of understanding on the ground or in terms of driving that project forward. I think the likelihood is that would—I mean, it's more

difficult with other mining companies but no reason to exclude it. But otherwise, in terms of financing and helping with the risk exposure that it's something that we would look at. We've said publicly that partnerships we're interested in as well.

It's something that we'll evaluate as we develop the project case over the next two to three years towards the development decision whether—and alongside that the finance case and the business case, and whether a partnership would be appropriate.

Operator

Thank you. Merci. The next question is from Bryce Adams from CIBC Capital Markets. Please go ahead. Your line is open.

Bryce Adams, CIBC Capital Markets

Yes, hi there. Thank you all for the presentation. Just one question left from my list and maybe it builds on one of the earlier questions. I wanted to ask about the approach that includes some projects into your guidance outlook before they are Board approved. Is that because Enterprise and S3 are contingent on discussions with the new Zambian government and if it wasn't for the government piece they would otherwise be Board approved? Is there anything else needed to formally approve these projects or it just boils down to that government discussion?

Tristan Pascall, Chief Operating Officer

Yes, thanks Bryce and I'll give a little bit more colour later on in terms of our discussions with government, but we previously said that S3 was around the three major areas in front of us before that decision with the situation with government, which you refer to. The copper price environment and certainly we're becoming more comfortable with copper price and the outlook for it that we see in the market at the present time. The other one was the balance sheet position and the finance capability of the business. Certainly, as we've seen, the balance sheet improve, and Hannes will speak a bit a little bit later on in terms of the debt reduction and our targets to improve upon that. Our ability to finance that project has certainly improved.

Yes, it really comes down to the situation with government and it's a very strong project, as John outlined. It underlines the next 20 years of Kansanshi continuing to be a world class asset, producing at the levels around 200,000 tonnes to 250,000 tonnes of copper a year. It really is that conversation with government and I'll speak a little bit more about that later on.

Bryce Adams, CIBC Capital Markets

Okay, thanks. I'll wait for the discussion around the government, and I'll go back to the event. Thank you.

Operator

Thank you. There are no further questions registered at this time. I'll turn the call back to Tristan Pascall.

PRESENTATION

Tristan Pascall, Chief Operating Officer

Thanks Operator. Thanks everyone, for your questions. We're now going to take a short break and we'll be back to resume the call at the top of the hour, around 11:00 a.m. Eastern Time. Thank you very much.

Welcome back. We will now begin the second part of our Capital Markets Day. At First Quantum, the environment and our local communities are a top priority for us. I'm pleased to have Andrew Hester, our Environmental Group Manager with us today to share with you some of our ESG initiatives, including the new emissions target that we released yesterday evening.

Andrew, I will hand it over to you.

Andrew Hester, Group Manager, Environmental

Thank you, Tristan. As Tristan mentioned earlier, our ESG focus is central to what we do at First Quantum. For us, it's never been a nice to have but a must have. Earning the respect and trust of our local communities and operating in an environmentally sensitive manner has been an essential part of our history when building and operating mines. Without this work, the growth of

First Quantum over the last 25 years would simply not have been possible.

Before breaking ground for construction, we undertake a considerable amount of work to ensure that in any country that we operate in, we leave it in a better place than we found it. This work includes protection of biodiversity, enhanced public infrastructure and improvements in education and healthcare. Furthermore, we have embraced the role that we at First Quantum have to play in addressing the challenges presented by climate change, both in terms of delivering the energy transition metals, and also to our commitment that climate change and energy issues will be a central consideration in all of our decision making and planning.

For this reason, we have implemented carbon pricing into the evaluation of our new projects. Having built several projects from the ground up, there have been many lessons learned and best practices developed from an ESG perspective that we have applied in our approach to Cobre Panama. The focus is always on listening, learning, and then finding practical, real ways to have a positive impact on the world around us. This approach has led to strong community and government support at our operations and will be patiently applied to our greenfield projects in Argentina and Peru.

First Quantum has long strived for continuous improvement in reducing our carbon footprint through our commitment to energy and resource optimization, our innovation projects, and our renewable energy consumption. As reflected in the presentation, in 2020 almost 80 percent of our purchased energy was renewable. As the global transition to cleaner energy sources accelerated, so we have looked to further reduce our greenhouse gas emissions across the group.

Yesterday, we published our inaugural climate change report. This is our task force on climate related financial disclosures aligned report, outlining First Quantum's greenhouse gas emissions reduction target. We have made a commitment to reduce our absolute scope one and two greenhouse gas emissions by 30 percent by 2025 and 50 percent by 2030. Our targets and associated specs are provided in the waterfall chart.

These targets have been set on absolute basis with the assumption that both S3 and Enterprise will come online through this period. Achieving the targets will put us on a path to achieve better than the 1.5-degree reduction scenario, outlined at the COP25 conference and more recently, reinforce the COP26 in Glasgow. Real engineering solutions such as the increased use of trolley assist and electric conveyors and a transition away from coal fired power in Panama and Zambia are central to achieving the greenhouse gas emission reduction goals that we announced. Our targets are compared to other decarbonization trajectories in our recently released climate change report.

In setting greenhouse gas reduction targets, our focus is on our sources of power in Panama and Zambia, which in 2020 accounted for almost 60 percent of First Quantum's emissions. The main drivers to achieve the 2025 targets will be through the increased usage of renewable power at both our Zambian mines and Cobre Panama. It's been very pleasing to see the recently enacted Zambian legislation that makes the entry of new, independent power producers, also known as IPPs to the Zambian market who are in the process of accessing the feasibility of Zambian wind and solar generation in partnership with IPPs, which will allow us to diversify and de-risk our energy supply without the increased use of non-renewables.

As a result, we expect to be able to increase our use of renewable energy in Zambia, beyond the current 80 percent level. Although there will be capital investment required for this wind and solar generation, at this stage we expect this will be sourced from third parties with the net market price shown to be competitive with current electricity prices in the country.

Our single largest source of emissions is the Cobre Panama coal fired power station. Achieving our 2025 target with respect to this operation will take place in two parts. The first part will be addressing the power needs for the 100 million tonnes per annum expansion, which will require an additional 60 to 80 megawatts of power by the end of 2023. This incremental power requirement will be met in full by a recently awarded power purchasing agreement, comprising 100 percent renewable energy. Power costs are comparable to our current cost of coal power.

The second part to reducing our emissions at Cobre Panama will be to address the power currently provided by the 300-megawatt two-unit coal fired power station. This will involve the progressive substitution of energy currently generated by these two units. Following engagement with the country's power providers, we have confirmed the feasibility of drawing sufficient renewable energy from the existing grid capacity so that only one of the two units will be required to supply Cobre Panama's needs from 2025 onwards.

This renewable energy will be sourced through further power purchase agreements and is expected to be at a cost comparable to current energy costs, partially due to the strong increase in thermal coal prices in recent years. The achievement of our 2030 target assumes a complete transition away from coal powered Cobre Panama. This will require the replacement of power from the second coal unit with a mix of natural gas and renewables. Conversion of both units to natural gas has been considered but this is a capital-intensive result solution, as a result of the gas supply infrastructure required, and the resulting converted units would in any case not be particularly efficient.

We estimate that our second coal unit could be replaced by a 50/50 mix of natural gas and renewables by 2030, which will require the construction of further natural gas generating capacity at Panama. This could be sited in Colon, approximately 100 kilometres away where there is existing natural gas offloading and storage capacity. We would consider construction of a power line linking Cobre Panama directly to Colon to connect to this power, which would also have the benefit of improving national grid stability. We will consider a range of partnerships and self perform options for the gas site power generation and transmission.

First Quantum has considerable experience in both power line and power space and construction and should a self-perform option be selected, we estimate the Capex would be around $250 million in the 2025 to 2030 horizon. In the interim, however, we do see some need, particularly at certain times of the year, for the coal fired powered station or at least one of the 150-megawatt units to continue to operate as a base load feed in order to stabilize the national grid and electricity prices in the country.

The renewable portion is likely to be wind generated, given the relatively poor solar intensity and limited additional capacity for hydroelectricity in Panama.

Our greenhouse gas emissions reduction targets are further aided by our continued focus on optimization, innovation, and technology, which augments productivity, cost control, and also our impact on the environment. Our efforts in mine electrification stand out in this regard. First Quantum has prioritized the use of efficient, reliable, and robust technologies that maximize the use of electrical power within the pit and in the haulage of ore and waste for over 10 years. We have replaced fossil fuels with hydroelectricity through the use of trolley assist for waste rock movement, electric drilling and electric shovels on the pit floor, and in-pit crushing and conveying of ore.

As shown in the graphic, we have estimated annual savings of close to 100,000 tonnes of carbon dioxide equivalent through these interventions. First Quantum has become a world leader in the successful development and operation of trolley assist systems. Trolley assist involves working with OEM suppliers to install electric motors on large haul trucks, enabling them to connect to overhead electric lines as they exit the pit. This innovation is currently being used at our Kansanshi, Sentinel, and Cobre Panama operations and is part of the plans for future development at Taca Taca. Trolley assist substantially reduces the diesel required by the fleet at the most energy intensive point of haulage, when fully laden on the up ramp of the pit.

Other benefits of trolley assist include higher ramp speeds, a reduction in operating costs, and extension of equipment life. We have developed trolley assist hardware to align with specific haul truck manufacturers. This expense, development of power supply infrastructure to the mine, such as the transformers, and the trolley line deployment systems. Trolley assist offers the potential for future integration with battery technology. Trolley assist hardware is lightweight and mobile, designed to be efficiently relocated around the pit.

In-pit crushing, and conveying is another key approach that we use to reduce operating cost and lower our greenhouse gas emissions. As John described during our planning S3, this technology involves semi mobile, independent gyratory crushers, operating in open circuits within the mine pit and a conveying system to move ore to the pit. With ore crushed in the pit, conveying vastly reduces haulage cost and dependency on diesel operated trucks. While fuel is the obvious saving, it also reduces tire usage, maintenance, spares, dust, and noise, all resulting in a significant improvement in productivity, cost efficiency, and reduced greenhouse gas emissions.

Specifically, the reduction of in-pit traffic makes a major contribution to ensuring the safety of our employees and contractors, as well as reducing bottlenecks as the pit deepens. In-pit crushing, and conveying is currently in place at Sentinel and Cobre Panama. Will be installed as part of the S3 expansion at Kansanshi and will be incorporated at Taca Taca, as John outlined.

While the operation of the Kansanshi smelters increased our scope one and two emissions, the facility is

significantly reduced our scope three emissions and therefore the CO_2 equivalent intensity of our copper production. Not only has the Kansanshi smelter significantly reduced the volume of material to be shipped and resulting scope two emissions, but it has also replaced the use of smelters in Asia, which typically rely heavily on fossil fuel compared with the Zambian power which has a strong renewable component. Further emission savings are achieved in other areas, such as the transportation of sulphur. As shown in the presentation, we have estimated the smelter reduces our scope three emissions by approximately 1 million tonnes of carbon dioxide equivalent annually.

While the commitment to reduce our greenhouse gas footprint has been a very strong focus for us and the rest of the mining sector in more recent times, we have not lost sight of our potential impact in another important area, namely local water supply. Water is of course essential for our operations and the livelihoods of our neighbouring community. But any change is felt locally in the short to medium term. We are fortunate in that our three largest mines, namely Sentinel, Kansanshi and Cobre Panama have positive water balances and are located in areas with plentiful water supply. Water supply is not predicted to be a material constraint at any of these operations in the near future.

Our operations that are within or close to areas of high-water stress have secured alternative supplies and have limited dependence on fresh surface water. More than half of our water withdrawal from Las Cruces and Guelb Moghrein is from industrial wastewater and saline wellfields respectively. At Ravensthorpe, almost all of our process water requirements are met by seawater. As shown in the graphic, our exposure to surface water stress is limited.

In keeping with our focus on resource optimization, we continue to look at opportunities to minimize withdrawal, improve operational efficiencies, and maximize reuse to manage excess water and the resulting discharge risks. The company has made extensive use of industry leading predictive tools to not only identify potential safety issues but also help us to plan around meeting discharge and ambient water standards. Water reuse across the group is around 70 percent of the number of projects earmarked to improve that in the coming years.

Our tailings storage facilities are designed and operated in accordance with guidelines issued by either the Australian National Committee on Large Dams, the Canadian Dam Association, or the European Union Legislative Directors. Importantly, each of our tailing's facilities is operated in accordance with the designed intent and controls that have been considered local conditions. Both constant senior management and engineering staff work closely with operators of each tailings storage facility to ensure the facility is managed and operated according to the designed intent and controls. Site management ensures regular site inspections are carried out by trained, on-site personnel, as well as by independent, global experts.

In 2021, the company thoroughly reviewed the global industry standard on tailings management that has been developed by the International Counsel on Metals and Mining. We have fully supported of the standard's intent to improve the industry's performance on tailings management. First Quantum is committed to a phased approach in aligning our operations with the performance aspects of the standard to maintain our excellent track record in tailings management.

Biodiversity is another key consideration in the life cycle of mines and recognition of its importance is central to our values. The Cobre Panama mine lays within a sensitive ecological region. In recognition of the ecological importance and the scrutiny that we would be under to get things right, Cobre Panama made three bold biodiversity related commitments in the early stages of the project. Firstly, the company committed to having a net positive impact on biodiversity in Panama. Secondly, the company committed to the development and implementation of an exhaustive biodiversity action plan. Thirdly, the company committed to exceeding national regulations for biodiversity management on meeting appropriate international best practice and biodiversity management.

In order to meet these broad commitments, First Quantum initiated detailed action plans in collaboration with respective independent conservation organizations. In the protected area plan, Cobre Panama has committed to provide support to three adjacent protected areas, totaling nearly 250,000 hectares, equivalent to approximately 3 percent of Panama's surface area. The objective is to slow and ultimately reverse the gradual loss of forest cover within these protected areas. Working with and supporting the local government agencies is a key part of this plan.

In the reforestation plan, we committed to reforest an area double the size of the projected development footprint. In order to meet this ambitious target, the company has committed to reforest denuded farming

land outside the mine's footprint, encourage more sustainable agroforestry practices, and rehabilitate the direct mine footprint where available. To date, we have met our commitment by planting 3,428 days.

The species level conservation plan aims to address the management needs of each individual species where the protected areas and re-forestry plans may not be sufficient. Each species action plan describes a portfolio of actions aimed at ensuring a net positive impact on species viability. For the species level plans we have partnered with experienced, independent conservation organizations whose logos are provided in the presentation. An example of such a program is our partnership with Sea Turtle Conservancy.

Since 2014, Cobre Panama has worked in collaboration with the Sea Turtle Conservancy for the protection and conservation of three species of turtle. At the beaches near our port facility and in specially selected areas further afield, our conservationists patrol the beach to protect newly laid eggs from potential predators. We have estimated approximately 55,000 turtle nests to be protected as a result of our involvement. In addition, we are providing important funding to the Sea Turtle Conservancy for conservation and research activities in other sensitive areas in Panama.

We are very proud of the success and extent of our biodiversity initiatives at Cobre Panama. Some of the numbers showing the breadth and depth of our programs are provided to give a feel for the scale of the undertaking.

Our Zambian projects are located in the northwestern province of Zambia. The northwest province still supports vast tracts of relatively undisturbed forest, some within and some outside formally protected areas. First Quantum recognizes that the development of any new, large infrastructure in such a setting is likely to bring about changes to the adjacent habitat. Landscape changes are typically associated with the influx of people who come either to work or to benefit from the economic opportunities. In what we believe to be a regional first, First Quantum, in partnership with neighbouring communities and the Zambian Department of National Parks and Wildlife Conservation have developed the West Lunga Conservation Project. The project aims to contribute to the conservation of almost 12,000 square kilometres of natural habitat around the Sentinel mine.

Recently, the project received additional financial support through the Nature Conservancy, one of the world's leading independent conservation organizations. The Company believes that our interventions will not only contribute to the direct conservation and protection of large areas of natural habitat in pristine wilderness, but it will also form the basis for long-term sustainable management of the area.

Since the inception of the West Lunga Conservation Project, First Quantum has provided more than $5 million in financial support to the Zambian government's existing conservation management activities on the ground. Support is focused on resourcing and equipping local staff, infrastructure development, and wildlife management. A number of conservation related livelihood programs have also been developed in the surrounding communities. Long-term revenue generation will also be facilitated with community game ranching, tourism, and non timber forest production value chain enhancements. As a secondary benefit beyond the principal ambition for West Lunga intensive conservation and habitat protection we're also examining whether the project can meet the standards for potential offsets of carbon in the future.

First Quantum strives for relationships that are based on transparency, mutual trust, and respect. The company is committed to listening and communicating with stakeholders and local communities, directly and openly about impact, events, and issues. Each of our projects and operating mines has a comprehensive community relations program, appropriately staffed to engage with our host communities.

Furthermore, all of our projects and operations have fully functioning grievance mechanisms to accept, assess, and resolve community complaints related to company activities within a predetermined time period. First Quantum regularly engages a range of independent stakeholders, including international development organizations, civil society organizations, not for profit organizations, traditional leadership, and community-based organizations.

There have been no human rights violations at any of First Quantum's mines since we began operations at Bwana Mkubwa in Zambia in 1996. A comprehensive human rights impact assessment is embedded in our social impact management programs and our land acquisition and resettlement programs.

Turning and maintaining community support is fundamental to our company's success. Through partnerships with local communities, government, civil

society, and other industries, we seek to ensure that the benefits of mining extend beyond the life of our mines so that we leave a positive impact on the national environment and social capital. In collaboration with our host communities, we're continually refining our social investment strategy to best address community needs, local workforce development, local business, and infrastructure development in a manner that benefits communities.

In addition to over $1 billion in direct tax and royalty payments to the governments in our host countries, First Quantum invested more than $20 million in the communities in and around our operations in 2020. While our portfolio of community investment projects is diverse, we have at all times tried to align them with the needs of our local communities. While larger projects in Zambia and Panama, our community investment is therefore focused on strengthening the services provided by our host governments in areas such as healthcare and education. Our own programs are focused on the development of community livelihoods.

In the presentation, we have selected some of the key health and education highlights from our CSR programs around Sentinel over the last few years. Recently, the company has explored a number of different models in attempts to improve the sustainability of our investments. Some of the most successful models included basic collaboration between the communities, the government of Zambia, and First Quantum Minerals. We have been blown away at the commitment shown by communities in response to our projects.

As an example of our livelihood development programs, First Quantum initiated a conservation farming program in Solwezi in 2010. The program was initiated in recognition that all mining projects have a finite resource. That the positive impacts of formal employment could only reach a few thousand households and that traditional farming practices were in many respects, unsustainable. By teaching improved farming techniques, we could not only have a positive impact on the livelihood of thousands of local stakeholders, but also conserve soils and natural farming systems around our mines.

Following the initial success at Kansanshi, we extended the program to the communities around the Sentinel mine. The program, which has evolved in recent years, has resulted in a dramatic increase in yields and in 2020, has over 8,000 local farmers enrolled. As the initiative has matured, farmers are required to pay back into the program, thus improving its sustainability and likely long-term success. The program has created a self-sustaining agricultural economy in Northwest Zambia. Participants have shifted from subsistence to small scale commercial farming with 40,000 farmers having benefitted from the program in the last few years.

Faced with a similar social setting in Panama in 2014 where local subsistence farmers were feeling increasingly marginalized and frustrated by the lack of opportunities, First Quantum proposed a local community farming program. After meeting with the affected farmers, it was suggested that the 32 families form a cooperative through which they could sell their local produce to the company. First Quantum facilitated the formation of the Association of Small Farmers of Donoso and La Pintada, also known as DONLAP. After the formation of the group, First Quantum started buying fruits and vegetables from DONLAP to supply the project canteens.

Not only did the project make sense in that it supported local communities, but it also reduced the logistical requirements associated with the transportation of fresh produce to our canteens. The DONLAP cooperative now sells fresh produce from approximately 200 families around the mine. The roads and local infrastructure built for the mine have enabled the DONLAP cooperative to widen their horizons to other local stores and markets. The cooperative model and successful pursuit of organic farming have even attracted interest from Nestle who in 2019 started buying from them. Discussions are underway to provide tomatoes to a future tomato plant that Nestle plans to build in the area. The DONLAP cooperative sales have grown to an estimated $2 million in 2021.

I would like to close my section with some comments on COVID-19. The impact of the global pandemic has been different in each of the countries we work in. In terms of reach into our surrounding communities, it has been in Zambia, Panama, and Mauritania where we have been most active in supporting and augmenting the government's responses to COVID-19.

In Panama, the company has been very active in supporting the Ministry of Health of Panama, MINSA, with access and supplies into surrounding communities. Response of the Gorgas Memorial Institute for Health Studies, a medical research institution that has been dedicated for more than 80 years on investigating diseases in the tropics and preventative medicine in order to fulfill its role as a national public health laboratory. In April 2021, the Gorgas COVID-19 Institute was opened and now provides advanced genetic sequencing of

Corona virus samples to help track its mutation and spread in the country. Cobre Panama has also provided direct support, including emergency livelihood packages to support its surrounding villages and communities.

In Zambia, the company has provided testing and medical equipment, and assisted with the construction of COVID-19 isolation facilities for the community. Ongoing support includes the provision of oxygen, consumables, face masks, sanitation stations, and transportation of medical supplies. The company is working with the Ministry of Health in the northwest province to provide vaccination stations to employees and affiliated contractors in support of the national vaccination program. In addition to increased medical facility resilience, initiatives at the mine clinics in Mauritania, Zambia, and Panama, COVID-19 protective measures to minimize person to person transmission in the workplace and protect business continuity have been implemented across all our operations.

Thank you for your interest in First Quantum's ESG work and I will now hand over to Hannes Meyer.

Hannes Meyer, Chief Financial Officer

Thank you, Andrew.

Yesterday, we were pleased to release our financial policy statement. You will be familiar with our history. An increase in leverage and absolute debt in order to fund the building of the world class asset in Cobre Panama. Now that Cobre Panama is hitting its stride and the major capital projects are behind us, it is appropriate to consider how we will allocate capital in the years ahead.

In this year, our principle focus continues to be on debt reduction, and this is the main reason that our dividend policy has started cautiously. In 2020, we committed to reducing our net debt from its peak of $7.7 billion by $2 billion. We now expect to achieve this goal in the first half of this year and have further increased our debt reduction target by an additional $1 billion in the short to medium term.

Our longer-term policy objective is that through this commodity cycle net debt to EBITDA ratio of less than two times. This is not a target. It is intended to be a maximum. This will be one of the key considerations when we consider the next greenfield project, to ensure that when we move into the next capital-intensive build phase, we have the net capacity on the balance sheet to not exceed these leverage limits.

We will of course consider other financing options to ensure that we avoid facing excessive strain on the balance sheet. This may include developing new projects with well capitalized partners to share the capital burden. The partnership that we announced last year with POSCO at Ravensthorpe is an example of First Quantum's increased openness to partnerships.

We are now in a position to improve our return to shareholders from the current nominal dividend. This is due to continued higher commodity prices, continued strong operational performance, and the debt reduction over the last 18 months. We also considered our future plans to assist in formulating the dividend policy. In terms of this dividend policy, the board has approved a cautious increase in the dividend.

Under the new policy, we will pay a performance dividend of about 15 percent of available cash flows generated, after our planned capital spending and distributions to noncontrolling interests. We will underpin the dividend with an annual base dividend of CA$0.10 per share. That's with a CA$0.05 per share being paid semi annually. You should think of this as a minimum dividend of $0.10 per share or 15 percent of the performance as described, whichever the greater.

Through this dividend approach we will maintain an appropriate capital allocation between debt reduction, investment in the future of the business, and cash return to shareholders. The new financial policy and related dividend policy underlines our confidence for the future of the business, whilst still enabling First Quantum to first continue deleveraging and advance the strong portfolio of growth projects which John and Zenon described.

Returning to our debt profile, post the partial redemption of our 2023 notes, we have included a slide that presents our updated debt maturity profile. The debt capital market is an important market for us. Although the absolute amount of bonds will reduce, we plan to retain some exposure to this market in the future. At the same time, we have had a longstanding and supportive banking group that work with us through difficult times, and we will also retain some of this spending capacity in future.

In addition to the dividend policy announced yesterday, our priority for capital allocation in the guidance period is the advancement of our brownfields projects, which Zenon and John outlined. We believe these projects can

put us on a path towards 1 million tonnes per annum of copper production. These brownfields projects are more capital efficient than greenfield projects and therefore will not place undue strain on the balance sheet during this period where debt reduction remains our principle objective. The greenfield projects which John Dean outlined are not a current focus of our capital allocation and spending will remain low through the next two years as we do not expect to make a decision on these projects prior to the end of next year or sometime in 2024.

Now turning to hedging. Consistent with our strategy of not being natural hedgers, the hedge exposure continues to decline significantly, where hedges represent now less than 7 percent of our guided production this year. The remaining hedges for this year are under zero cost collar contracts and has an average floor price of $3.61 and a ceiling price of $4.69 a pound of copper. The hedge book will continue to reduce on a quarterly basis going forward, given the improving strength of our balance sheet.

Thank you and with that I would now like to hand back to Tristan to conclude today's presentation.

Tristan Pascall, Chief Operating Officer

Thank you, Hannes.

The projects outlined by John, Zenon, and John will enable us to deliver on three critical strategic initiatives, all the while staying within the financial guidelines which Hannes has outlined. Firstly, we want to extract full value from our existing assets. The expansion of Cobre Panama and the delivery of S3 will enable us to achieve this in our Panamanian and Zambian businesses. The recently completed Shoemaker Levy project at Ravensthorpe and the installation of the fourth in-pit crusher and expansion to 62 new in tonnes per annum at Sentinel will also help us achieve this.

Secondly, we want to replace the medium sized higher margin mines such as Çayeli and Guelb Moghrein, which will close in the coming years. The development of the Las Cruces underground project and the Enterprise nickel mine will do just that by adding two high grade, high margin operations to our portfolio. Thirdly, we would like to add a third leg of largescale production to add to our Zambian and Panama businesses in order to fully further diversify our business. The largescale copper projects at Taca Taca and Haquira provide optionality for us to achieve this over the longer term.

We have gone into detail today on the technical, environmental, and financial workstreams underway at First Quantum. Another critical workstream is the constructive dialogue that exists with the governments in each of our host countries. In Zambia, following the inauguration of His Excellency President Hakainde Hichilema in August last year, it has been pleasing to see the new government target an increase in Zambian copper production from the current 800,000 tonnes per annum to 3 million tonnes per annum over the next decade.

We see that a target of this magnitude will require Zambia to attract substantial investment into the country and establishment of the fiscal framework which makes that possible. An important first step was made towards achieving this goal with the reintroduction of the deductibility of mineral royalties for corporate income tax assessment purposes in the new administration's first budget. This became effective at the start of this month and indicates the willingness of the new government to implement the required policy changes to reach their goals for growth of the economy, creation of new jobs, and further development of social infrastructure in the country.

We also note the efforts by the new government to improve the ease of doing business in Zambia and their ongoing active engagement with the IMF, which we certainly see as demonstrative of a more constructive environment for economic growth in the country. Our productive discussions with the government of Zambia to support the approval of S3 and Enterprise continue. They focus on ensuring the appropriate and enduring investment conditions exist for us to advance these important projects, as well as ensuring an agreed mechanism is in place for a predictable repayment of that owed to the company. These discussions are constructive, such that we are hopeful that we can advance both projects this year as reflected in our guidance.

With regard to Law 9 discussions in Panama, we continue to be engaged in formal discussions with the high-level Ministry of Commission, comprising four cabinet ministers. In Q2 of last year, the Supreme Court upheld its ruling in respect to the clarification motions presented by the company to the court in relation to its Law 9 decision announced in September 2018. This ruling was gazetted in Q4 of last year and adds momentum to the ministerial commission and their process to resolve the matter.

In September, the Minister of Commerce announced the culmination of discussions on environmental and labour matters. Discussion on financial matters, particularly the royalty and tax regime that govern the project, have been continuing and on 5th of January this year the Minister of Commerce indicated his intent to conclude and reach an outcome by the end of January, a target date that we are aligned with.

Following extensive and robust discussions across the early part of this month, the Minister of Commerce publicly outlined the government's proposal in respect of the fiscal matters last week. This proposal reflects the government's objective that the new fiscal arrangement provides predictable and stable contributions to the country from the mine. At the same time, the government has committed that it does not want to unreasonably impact the profitability of the underlying business at Cobre Panama.

From our perspective, we support this approach and we have noted to government that it is important that necessary protections are in place for lower copper price and production scenarios, and that the parties need to ensure that the new contract and law are both durable and sustainable.

The discussions are very much live and fast moving, and within the last 24 hours there has been agreement on principle items. Namely, that the Government of Panama should receive $375 million in benefits per year from Cobre Panama, and that the existing revenue royalty will be replaced by gross profit royalty. While both parties now need to finalize the detail behind these principles, including the appropriate mechanics that would achieve this outcome and the protections to the business, we are pleased that there is alignment on the fundamental elements of the fiscal terms for Cobre Panama going forward.

Once the agreement is documented, which is expected in the near term, it is expected that newly drafted legislation would be put to the National Assembly for ratification. The company welcomes the transparency of the robust ministerial commission process, and we are hopeful that we can conclude this matter shortly. We are happy to take questions on this important topic, but would note that we cannot comment on the specific terms which are currently being finalized.

Before we go into our last round of Q&A, I would like to close with saying that we are pleased in the position that First Quantum is in today. We are in a period of solid cash flow generation and while debt reduction remains a priority for the company, we are pleased to be able to cautiously commence more reasonable capital returns to our shareholders with the announcement of our new dividend framework.

At the same time, delivering financially disciplined growth has always been one of First Quantum's core competencies and reinvestment in the business remains central to our business strategy. In this regard, I am pleased to have shared with you today our path forward to 1 million tonnes of copper production per year, through the advancement of our four brownfield projects. Our portfolio of growth options also includes the longer dated major greenfield opportunities which will be approached in a measured and cautious manner.

As we go forward into this exciting new phase of growth, we will continue with the approach developed over the 25-year history of the company. We will continue to listen and learn, and we will continue to stay humble and openminded as we are always conscious that you're only as good as your last project. As a company, we will focus on developing our projects through our unique in-house execution capabilities.

We will look to operate these new projects and our existing mines within an efficient and practical manner. We will continually apply existing and new technology where it can have a direct, real impact on our underlying performance. All of this will be done with a very real commitment to working with and supporting the communities we live with and using the First Quantum approach to improve the environment around us.

Thank you for joining us today. Operator, we are now ready for Q&A.

QUESTION AND ANSWER SESSION

Operator

Thank you. The first question is from Orest Wowkodaw from Scotiabank. Please go ahead. Your line is open.

Orest Wowkodaw, Scotiabank

Hi Tristan. Thanks for giving us some colour on the current, I guess state of negotiations in Panama. Just if

we try to dig a bit deeper here, I'm just trying to get a better understanding on how the new fiscal regime may work in practice. I know there's been reports of the $375 million per annum in payments of taxes on royalties but does that flux with copper prices and/or operational, say challenges? I'm just wondering how that works on a $2 copper environment.

Tristan Pascall, Chief Operating Officer

Sure, thank you. Look, the government has made it clear to us that in their proposal that they are focused on that $375 million headline. But it is important that those protections are in place and certainly there's a realization that we live in a cyclical industry and copper prices and production and so on do go up and down.

Look, the detail of fleshing that out is ahead of us in terms of getting to legislation in front of the National Assembly. But those are the principles that it will be around the $375 million per year and we will move from a net smelter royalty across to a profit-based royalty.

Orest Wowkodaw, Scotiabank

Okay, across all copper price horizons?

Tristan Pascall, Chief Operating Officer

For those protections, we'll work on but certainly in the kind of scenario that you speak about are very low prices, our agreement with government and the understanding with government is that there will be those protections in place.

Orest Wowkodaw, Scotiabank

Okay and I guess as a follow up, I realize you still need to reach a formal deal that needs to be approved by the legislature, but do you expect that is becomes live sort of backdated as of now, beginning in January, or is this something that would come into effect later this year?

Tristan Pascall, Chief Operating Officer

Orest, we'll need to work that through but the functions and so on of that but certainly, in terms of the existing standing of Law 9 and everything that was in 2021, there won't be any looking in the revision as far as our guidance and advice is telling us.

Orest Wowkodaw, Scotiabank

Okay. Thanks so much.

Operator

Thank you. The next question, sorry, is from Matthew Murphy from Barclays. Please go ahead. Your line is open.

Matthew Murphy, Barclays

Hi. Thanks for all the info today. I got a couple questions just on the Panama front. Just trying to gauge like how much things might be at to move versus what the government released. I mean, you describe it as a negotiation but is this more about specific mechanics or might we see still pretty significant movement on some of those details?

Tristan Pascall, Chief Operating Officer

Yes hi, Matthew. Thank you. No, there is an agreement on those headline principles, and we've made that clear to the government. They were happy to accept that. But the detail in terms of implementation, the mechanics, and the drafting and so on are ahead of us.

Matthew Murphy, Barclays

Okay. Okay and then I have one on just sort of Capex budgeting. Hannes, you described some potential capital-intensive build phases but also JVing, etc. I'm wondering if there's a sort of broad set of thinking what levels Capex could hit. Is it something you want to keep it like $1.5 billion per year or you go to $2 billion? Or is it really just about if you tick the box on enough projects at one time you can go higher?

Tristan Pascall, Chief Operating Officer

Hannes, are you happy to take that?

Hannes Meyer, Chief Financial Officer

Sure, Tristan. Matt, I mean what we're focusing on is sort of the leverage, the maximum ratio. As we move through the cycles of ratio of not more than two times net to EBITDA. If we look at our current ratio but that is low two but if you look at the consensus price that's below the current stock price. We do factor that in, so we do expect it to go well below the two. If we get to sort of sometime in '23 for the next greenfield projects, we're well below those targets and that can accommodate quite a bit of spend.

Now, John Dean highlighted I think $3.5 billion - $3.6 billion for the Taca Taca. It's a lot of effort to spend $1 billion in a year. If you layer in another $1 billion, that's not going to strain that sort of ratio at all. Tristan, back to you.

Tristan Pascall, Chief Operating Officer

Thanks. Operator?

Operator

Thank you. Merci. The next question is from Jackie Przybylowski from BMO Capital Markets. Please go ahead. Your line is open.

Jackie Przybylowski, BMO Capital Markets

Thank you very much. I guess I wanted to come back to the ESG presentation and maybe talk a little bit more about the transition away from coal fired power at Cobre Panama. I know it's something that investors are keen on, so I think it's maybe worth asking a little more detail. Can you talk about how exactly the transition would work? It sounds like it's, if I understood Andrew's presentation correctly, that you would be still maintaining some coal fired power to ensure like a base load availability. Is that the case for the long term? Did I understand that right or are you looking to convert all of the coal to natural gas and then have wind power in addition to that as a renewable component?

Tristan Pascall, Chief Operating Officer

Hi Jackie. Thanks. Yes, principally three phases. The first step is for the expansion to $100 million, which is additional 60 to 80 megawatts. All of that will be renewable and as Andrew said, there's a letter of intent in place and the principle terms agreed there and we're working through the commercial finalization of that.

The second phase is dealing with the first 150 megawatts, and we believe that we can move across to renewable there and that would be the intent. Then the third phase is the second lot of 150 of the existing and there we're saying that as we look at the mix across Panama, it will be a combination of factors. What we do see is the need, at least in the interim to have at least one unit of a coal fired power station running at particular times of the year. This part of the world is known for the wind dropping for at least four months of the year and that was evident when they used to talk about the doldrums sailing through the Caribbean. That's certainly—and that remains the case today.

As Andrew outlined on the solar side, the solar intensity maps are pretty low in reliability because of the amount of cloud cover in Panama. We do see that need in the interim but longer term, we could invest and there are opportunities to invest in things like gas-fired power generation and those facilities are existing in Panama. As Andrew said, from 2025—sorry 2030, 2025 that kind of timeframe, we could look at building a powerline across to Colon where there's gas and potentially either sourcing from a third party or ourselves constructing on that gas fire.

Andrew, I'm not sure if you would add anything, any further colour. Maybe I've covered it there.

Andrew Hester, Group Manager, Environmental

Thanks Tristan. Yes, you have covered most of it. I think we mustn't forget there's a very strong hydroelectricity component in the Panamanian grid and some of that should be available in the short term. That would also be a consideration and some of that hydroelectricity is very attractive, dam hydro project and obviously not suffering as much the seasonal changes as wind and solar.

Yes, I can't really add too much more to that. Thanks.

Jackie Przybylowski, BMO Capital Markets

No, that's really helpful recap. Thank you. I mean, if I'm understanding right, just to make sure. It sounds like First Quantum would not be looking to convert coal to gas until at least 2035 and in the meantime, you'd be looking more at constructing additional power with renewables. Is that right?

Tristan Pascall, Chief Operating Officer

Yes, Jackie and so most of that renewable is available in the grid today, and then from 2025 to 2030 we would be considering what we do in the longer term. But as we said in our targets, we will be looking to reduce our CO_2 greenhouse gas emissions by 50 percent by 2030.

Jackie Przybylowski, BMO Capital Markets

Got it. Thanks very much, Tristan and Andrew. Thank you.

Operator

Thank you. Next question from Jatinder Goel from BNP Paribas. Please go ahead. Your line is open.

Jatinder Goel, Exane BNP Paribas

Thanks Operator. I've got two questions. One, on dividends, is the view today this policy that 15 percent is the maximum dividend or is it more of an ordinary dividend and then you can always top it up if you feel you've got enough headroom and not much to do with that cash?

Hannes Meyer, Chief Financial Officer

Tristan, do you want me to take that?

Tristan Pascall, Chief Operating Officer

Yes, thanks Hannes.

Hannes Meyer, Chief Financial Officer

How you should think about it is $0.10 is the minimum dividend. We will pay a $0.10 dividend, but we will do the calculation to see what is 15 percent of the cash flow available from operations less our Capex, and less the minority interest share of that. If that is greater than the $0.10, then we'll pay that percentage. With the current copper price, what we are planning for, you should think about it as a 15 percent dividend of the operational cash flows. But there's a base dividend of $0.10, so we won't go below the $0.10 a share, Canadian cents that is.

Jatinder Goel, Exane BNP Paribas

So, 15 percent is the ceiling is the way to understand in current environment, based on the current guidance period.

Hannes Meyer, Chief Financial Officer

Sorry, can you repeat that? I missed that.

Jatinder Goel, BNP Paribas

Fifteen percent is the ceiling based on the three-year Capex outlook that we got. First Quantum will not be paying more than 15 percent even if there is more cash.

Hannes Meyer, Chief Financial Officer

Yes sorry, it's 15 percent of the cash flows. That's not a cent but it's a percentage of the cash flows.

The reason for a cautious approach is we've still got a lot of debt, so we want to reduce the debt, so the key focus is debt reduction. But at the same time we've got brownfields projects and that is the future, as well as greenfields projects. It's a balance between reducing the debt, investing in these value-adding projects, and then returning some cash to shareholders.

Jatinder Goel, Exane BNP Paribas

Understood.

A question on Panama. Tristan, are you ready to say anything on the corporate tax that's being picked up in the original proposal to be implemented with immediate

effect? Where are we if you can comment on anything because it's hard to align $375 million with 25 percent tax and the royalty rates. Related to that, how much of your development Capex is still to be recovered under the current regime? Or alternatively, is there a date in mind from which the corporate tax would become applicable under the current regime?

Tristan Pascall, Chief Operating Officer

Thanks Jatinder and look, I appreciate the interest there and I understand the details there. But as I said, it's pretty fast moving at the moment. What we do have in place is those principles that are agreed and we've outlined. The detail of that, we'll work through. We'll give the colour on that as soon as we can. Certainly, those are the elements and how that flows through, the mechanics of that that we seek to provide that colour as soon as we can.

Jatinder Goel, Exane BNP Paribas

Fully understood, Tristan. It is delicate matters. All the best with the negotiations. Thank you so much.

Tristan Pascall, Chief Operating Officer

Thanks Jatinder.

Operator

Thank you. Yes, the next question is from Farooq Hamed from Raymond James. Please go ahead. Your line is open.

Farooq Hamed, Raymond James

Hi there. Thanks for taking my question and good morning or good afternoon. Again, another question about Cobre Panama and the $375 million annual benefit to the government on Cobre Panama. You've talked about protections to the downside if the copper price were to fall and you'd have some protections on that number. I guess from the other side though, is this—should we look at this $375 million as a cap or could the annual contributions from the mine be higher than $375 million if the calculations of the royalties and the taxes end up being higher because of higher copper prices or what have you?

Tristan Pascall, Chief Operating Officer

Hi Farooq. Thanks, and look, I won't be drawn on that one, but certainly the government's focus has been to get a stable level of contribution from Cobre Panama at this level, but I can't really go into further around the sort of details of that until we have that colour to provide to you.

Farooq Hamed, Raymond James

Okay. Okay, so that is something I guess that we'll know as you kind of iron out the details. I'm just wondering what do we do if you kind of have copper prices running higher. I guess that's just we'll have to wait to see what the details of the agreement are.

Okay, just maybe my next question, just picking up on Jackie's question on this transition away from the coal-fired power plants at Cobre Panama. Maybe just a point of clarification. Maybe I was just not clear on how it's going to move forward. When you get to 2025 and you're only down to the one unit of the coal plant, what is the plan for the coal plants? Are they planned to be decommissioned? Sold? What actually happens with the coal plants?

Tristan Pascall, Chief Operating Officer

Yes, thanks Farooq. Andrew, do you want to cover that?

Andrew Hester, Group Manager, Environmental

Yes, look, thanks Farooq and Tristan. Look, I think there's quite a bit of time now between now and 2030. I think we're currently considering a few options with no firm decisions made on the future of those power plants, other than we will be running, you know, we will be dropping one unit in 2025 and then running a second unit intermittently seasonally up to 2030. Yes, so a few options but I'm not aware of any firm decisions yet that have been made by the company.

Farooq Hamed, Raymond James

Maybe just a follow up to that. Do you know, does the Panamanian grid require all 300 megawatts from those plants to kind of service the grid right now? Is it required or could the grid lose 150 megawatts of power that's coming from those two plants?

Tristan Pascall, Chief Operating Officer

Sure Farooq. Do you want me to take that one, Andrew?

Andrew Hester, Group Manager, Environmental

Go ahead.

Tristan Pascall, Chief Operating Officer

Yes, Farooq, the grid in Panama is around 2,100 megs at this time. There's another 300 megs of gas fired coming on this year, next year, in that kind of timeframe in Colon. At this stage, the 300-megawatt delivered by the coal fired power station is pretty important and we've seen that. We have some maintenance ongoing at the Cobre Panama, on one unit of the Cobre Panama power station at this time and we certainly, we've been able to draw all of that power while we've been doing that two-year maintenance on that unit without problem from the national grid. But it has had an impact on national grid prices, which just illustrates that that base load is important to the stability and the good functioning of the grid. But the grid does continue to develop and there's ongoing planning by the government for example, on transmission line in order to reinforce the national grid.

For us, things like the connection between Cobre Panama and Colon, which would further improve that transmission grid stability make a lot of sense. But all of that will come to bear over the next sort of five years as that planning gets sorted out and yes, we would be looking at it on that basis in order to match into that overall plan in the grid. But at this time right now today, yes. The 300 megs from the coal fired power station are pretty important in the country.

Farooq Hamed, Raymond James

Okay. Thanks very much for your answers. That's helpful. Thank you.

Operator

Thank you. We now have time for one last question. It will be from Dalton Barretto from Canaccord Genuity. Please go ahead. Your line is now open.

Dalton Barretto, Canaccord Genuity

Great, thanks for squeezing me in there. Tristan, you've mentioned a couple of times in this presentation that you'd like to add a third leg to your production base of some scale. I'm just wondering, is it your intention that this third leg come through your greenfield pipeline? Or can we expect that M&A will be part of that equation?

Tristan Pascall, Chief Operating Officer

Thanks Dalton. Look, M&A opportunities we do look at. They come across the desk, and we do believe that First Quantum can apply its unique capabilities, the things that we spoke about today, Zenon on the project side and our execution capability there or in our operations excellence, and indeed on environmental or community side in terms of working on the ground with communities and doing that to a high standard and in an environmentally sustainable manner. We do look at opportunities, but our focus is really the portfolio that we have in front of us. Taca Taca and Haquira as we outlined today do give great optionality to the portfolio. There are options for that in terms of the way we approach those projects and we spoke a little bit about partnership as we've done at Ravensthorpe to bring in and share risk and to share return as appropriate. But yes, we would look at other opportunities, but we would need to drive value and create value for shareholders in those opportunities.

In the meantime, we're focused very much on our existing portfolio, which we believe is very competitive compared to the other copper opportunities out there in terms of new production that potentially can come on.

Dalton Barretto, Canaccord Genuity

That's great. Maybe I could ask you just one follow up before we wrap up. When you do consider these M&A opportunities, given your pipeline is there a preference to looking at more kind of operating assets versus development, and how do you think of these

opportunities in terms of scale, in terms of commodity, in terms of geography?

Tristan Pascall, Chief Operating Officer

Sure Dalton. Look, again, it would really be around our capabilities and what we can add to the project. We would look at smaller projects, potentially, or medium sized to replace some of those that are closing, and we spoke today about the opportunities from Enterprise and Cobre Las Cruces in that regard in terms of additional tonnage and high margin, low-risk return. In terms of geography, yes. As we said, we would like to add a third leg and that's why Taca Taca and Haquira, beyond our existing operations in Zambia and Panama, add diversification. Those are our focus. If we can add value outside that and the right opportunity comes along, we will look at that.

Dalton Barretto, Canaccord Genuity

Thank you very much and great job on the session today, guys.

Tristan Pascall, Chief Operating Officer

Thanks Dalton.

Thanks everybody for your participation today. We greatly appreciate the interest and your participation and commitment across this time. We look forward to speaking to you again when we put out our Q4 results and the earnings call, which is on the 16th of February this year. Thank you very much.

Operator

Thank you. The conference is now ended. Please disconnect your lines at this time and we thank you for your participation.
