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Call Participants

EXECUTIVES

Ana Cabral-Gardner
Co-Chairperson & CEO

Matthew Porter DeYoe
Executive Vice President for Corporate Affairs & Strategic Development

Rogerio Marchini
CFO & Executive VP of Corporate Finance

Unknown Executive

ANALYSTS

Joel Jackson
BMO Capital Markets Equity Research

Katie Lachapelle
Canaccord Genuity Corp., Research Division

Shannon Gill
Cormark Securities Inc., Research Division

Stephen V. Byrne
BofA Securities, Research Division

Presentation

Operator

Good morning, everyone. My name is Rob, and I will be your operator today. Welcome to the Sigma Lithium Third Quarter 2024 Earnings Conference Call. Today's call is being recorded and is broadcast live on Sigma's website. On the call today is the company's CEO, Ana Cabral; CFO, Rogerio Marchini; Company Executive Vice President, Matthew DeYoe; and Vice President, Investor Relations, Irina Axenova.

We will now turn the call over to the Sigma team.

Unknown Executive

Thank you, Rob. Good morning, everyone, and thank you for joining us on our third quarter 2024 earnings conference call. On the call with me today are company's CEO and Co-Chairperson, Ana Cabral; and CFO, Rogerio Marchini. Earlier this morning, we published our 3Q press release and posted our financial results, which are available through both SEC and SEDAR. Before we begin, I'd like to cover 2 items. First, during the presentation, you will hear certain forward-looking statements concerning our plans and expectations. We note that actual events or results could differ materially from changes in market conditions in our operations. And additionally, earnings referenced in this presentation may exclude certain noncore and nonrecurring items. Reconciliations to the most comparable IFRS financial measures and other associated disclosures, including descriptions of adjustments can be found in the back of the release.

With that, I will pass the call over to Ana. Ana?

Ana Cabral-Gardner
Co-Chairperson & CEO

Good morning, everyone. Well, this quarter, we achieved a production in low industry cost targets. We generated robust free cash flow, and we demonstrated our operational resilience to lithium cycles. We also benefited from a shift in our commercial strategy, which helped us navigate industry seasonality and price volatility, enabling us to secure final higher average realized prices compared to the price bulleting benchmarks.

Over the last year, you followed us on this journey, and we are very proud to have transformed Sigma from an margin producer into this industry leader, demonstrating the operational and financial resilience of a mature producer showing dependability and consistency. Meanwhile, we have managed to deliver all of our climates, and we reached net zero one year in advance of our target, 27 years ahead of the industry with our into Triple Zero Green Lithium, which became a brand.

Well, we're very confident that over the lithium cycles, our capabilities to deliver on the execution of our strategy will ensure long-term value for Sigma in all of its stakeholders. So without further ado, I will initiate this presentation going through the highlights of our quarter.

Well, on the operational aspect of our operations, we continue to deliver operational excellence. We first further increased the cadence of quasi monthly volumes to 22,000 tonnes sold per month. We also managed to surpass third quarter production targets set initially at 60,000 tonnes, we've done better than our targets. We successfully executed a shift in commercial strategy that helped us weather seasonality, meaning we achieved higher realized prices versus the industry and increased substantially our resilience to lithium cycles.

More importantly, we keep on working on our Greentech plan technology perfecting it. We successfully concluded the Plant 1 efficiency revamp we talked about in our Investor Day, which has the potential to increase production by 10% to 15% just like we said. More importantly, we continue to advance the construction of the second plant, and we're going to show you quite a lot of pictures here of our construction side.

I think more importantly to all of us partner employees, we created this culture of ownership and operational excellence, which continue to deliver in the 0 accidents with our lost time achievement. We've gone out 43 days without accidents, without lost time to work and 0 fatalities, staying at the very top of the ICMM rankings.

I'll pass it on now to Rogerio, our CFO.

Rogerio Marchini
CFO & Executive VP of Corporate Finance

Good morning, all. So Sigma delivered robust financial performance. The principal financial highlights that we have in Q3, we signed the BNDES Development loan agreement, fully funded construction of Phase 2. We maintained low CIF cash cost at target $513 per tonne, lowest [indiscernible] industry, $34.5 million in generated operational cash flow, [indiscernible] million cash in the bank, continue to lower interest rate of export credit rate lines something around 9%.

So we will [indiscernible] execution deliver operational performance on targets. Production volumes 6,237 GLT, sales volume, 57,483 GLT, cash costs 449 per tonne, CIF in China 413 per tonne; sales revenue $44.2 million; operational cash flow $34.5 million; cash in the bank $65.7 million; provisional price adjustment $23.3 million. This provision of price adjustments is final account settlement of sale open invoice. And we create -- we had a cash gross margin of 38%.

Ana Cabral-Gardner
Co-Chairperson & CEO

I'll talk a bit about the superior industrial performance of our Greentech industrial plan. So on production, we delivered on very, very ambitious targets. The strong performance of the plant basically achieved results that were never before achieved in DMS. Basically, it is a result of our unique Greentech technology. So we delivered production above targets of 60,237 dry metric tonnes. We achieved plant DMS recoveries of 70%, which is a record for this type of technology in lithium. And we achieved global recoveries of 55%, demonstrating what we're going to say next. By concluding the optimization project in record time, we are going to boost global recoveries to near the levels of DMS recoveries by increasing this plant efficiency in this quarter and in all the quarters thereafter.

More importantly, this is going to allow us -- these changes are going to allow us to reprocess our tailings basically or upcycling [indiscernible] contained in the tailings into more lithium concentrate. Now in a clear demonstration of operational readiness, our team managed to execute the shutdown in only 4 days and implemented and installed all the equipment necessary for this optimization project. So the team is very ready to build Plant 2.

Now I would highlight here something that sometimes we missed. We use a different technology than the rest of the industry. We use dense media separation versus flotation. For many reasons, environmentally, our technology together with the dry stacking doesn't create a tailings dam. Also importantly, for our other stakeholders, for our shareholders, these technologies will allow us in great part to achieve some of the lowest cost in the industry as a result of the more -- the simplicity of the processing of lithium that takes place in a DMS. So demonstrating that, when we saw total production cost at [indiscernible] at $395 a tonne, only $113 a tonne come from the processing DMS costs.

In fact, I want to use this point here to highlight another cost savings that will take place in the next quarter. We installed mobile crushers as part of this optimization project, which are temporary costs. So $25 a tonne are going to drop from this cost in the next quarter. So in the next slide is the demonstration of that operational performance. So we were able then to resume our trajectory of increasing production levels.

So the increased production performance has also translated into higher sales volumes for the company as you can see here, over the last 5 quarters and when you look at the last 4 quarters, you have then our annualized sales volumes. We are expecting to be able to continue on this trend and sell 60,000 tonnes in the fourth quarter of this year. As we said, this culture -- the strong culture of safety and processes is what drives this operational excellence.

I mean, our team works motivated, knowing that we have the processes and the safety culture to allow them to return to their families safely every day. So again, we continued on our trend of 0 fatalities, 443 days without lost time to accidents or injuries achieving a TRIFR, which is the index through which we calculate this of 1.24, which is the second lowest in all of the ICMM rankings, among all of the global metals and mining companies, some of them much bigger than ours.

Rogerio Marchini
CFO & Executive VP of Corporate Finance

So talking about BNDES. As I mentioned, we signed BNDES low on transaction. This is a very fantastic target that we got. The total amount is $487 million, that files 99% of our CapEx, the expansion on Phase 2. The first loan disbursement is pending a bank guarantee. And this lining will reimburse CapEx spend since one quarter of 2024. The terms is pretty good. The maturity is 16 years, the grace period is 18 months and fixed rate, it's a really, really good rate, $2.5, and there is no requirement of collateral in assets. So with BNDES, we are creating a long-term partnership for developing new funds to finance our expansions like to upcycling Phase III lithium intermediates and other expansions that we are planning.

Ana Cabral-Gardner
Co-Chairperson & CEO

So with that, we got confidence to continue to plow through in advance through our Plant 2 construction. So you can see the areas here, and this is kind of a different picture than what we used to show. We used to show in yellow the plant and then in green the infrastructure. So now we kind of switched over the area so that you can see the whole construction area to the left of the plant going all the way in something around 2 to 3 square kilometers a year within our already licensed environmental areas. So we're executing earthworks and engineering according to plan exactly as planned.

Well, moving on to cost targets. Again, we delivered on all of our cost targets as always, mainly this is because we have a very strict cost discipline here at Sigma. So we just maintained what we've always done. And therefore, we remain as one of the lowest cash costs in the whole industry. So this -- actually these systems and [indiscernible] and consistency and discipline in maintaining low cost is what actually demonstrates how resilient our company is to all the lithium cycles. We are always going to be in the black. Now more importantly, that execution discipline of keeping a little of our cost and maintaining low cost levels generated positive cash flow in the third quarter. So again, we are weathering the floor, which happened in the third quarter of the lithium cycles, which has been another data point.

I mean, this -- a positive cash flow generation is not a data point about the resilience of our business. So as you can see in these 4 charts, the operational cash flow generated, which was USD 34.5 million, all the figures here are in U.S. dollars, enable us to continue on delivering these earthworks and construction for Phase 2 CapEx investments, which amounted to $5 million in the quarter. But more importantly, it will allow us to repay some of the existing credit debit lines because given the BNDES was signed and final, we have now the confidence of not having to maintain such a large cash balance, given that we're not planning to fund this construction with trade credit lines anymore, even though those trade payer lines are kind of cheap.

So we retired USD 40 million in export credit debt, again, in a clear sign of cash flow generation and financial resilience. All the while, though, we still managed to maintain a very healthy cash balance during the year. So just for comparison purposes, we show the cash balance in December and then the cash balance in September at the end of the third quarter.

Now this page basically it's a very important page because in the quarter, we managed to further adapt our commercial strategy. So we pivoted from selling to the trader as a principle to sell into the trader as a distributor. So again, another data point that enabled us to weather the lithium market seasonality significantly strengthening our commercial position.

And this is quantifiable. How so? First graphically, intuitively in a chart at the bottom, the light gray line shows the benchmark, fastmarkets spodumene index, right? These are bulletin price index since the beginning of the year. And then in the fin bars here, you can see where we priced our boats with which each shipment. So you can see that by June, as we switched and adapted our commercial strategy, we started to manage to price our boats above the bulletin fastmarket prices. And we sent we consistently continue to achieve that throughout August.

Then we were able to push back the final resale of the product by the traders distributed all the way to the seasonality in October, concentrating these purchases seasonally and again, managing to price our boats above the benchmark price. Now in the chart above, you can see that in percentages and how these contrasts to what happened, for example, during the winter seasonality and then the pickup in prices in the spring. The change is quantifiable.

In the weaker seasonality, we were 25% below the benchmark index because we didn't pick up that seasonality as we were basically selling to the trader and the trader was the principal. He had full discretion on the resale. Now in the summer seasonality, the situation changed completely because seasonality is typically that sort of fluctuation, 25%-ish, 30%, right -- 20% to 25%, we inverted it. So we picked up all the above benchmark pricing seasonality. We reached 119% of the benchmark price seasonality, meaning capturing more value for our business. Now this change is quantifiable also in the mark-to-market closing of some of these previous trades that we did in this quarter. So as a result of these changes in commercial strategy, we also changed the way our commercial relationship with traders is conducted.

So essentially, we concluded this final accounting is a no-cash settlement of sales invoices from the previous quarters just turning a page on a way to do business that we no longer engage in given the robustness of our position today. Now this is important to understand our financial statements because when you look at the sales revenues booked, they have a provisional price adjustment which is essentially the closeout of all of these trades.

For this quarter, we just have a residual value of USD 7.7 million from the trades shipped in the fourth quarter of last year and that arrived this year. And then we have $15.6 million from the trades shipped and arrived this year. But now when you look at the year-to-date, that's when you see how most of the overall effect of all of these provisional prices that we've been booking and marking our sales book to market throughout the year are concentrated in the boats, the ships, the boats that were shipped in the fourth quarter of last year. So it's a clear heavy function of how the fluctuations actually and how the significant decrease in lithium prices in the fourth quarter actually caused this mark-to-market of our open sales books and therefore, lead to about $20 million of the overall annual provisional price adjustment over $29 million of the total.

We can clearly see a concentration in the fourth quarter of 2023. But that basically concludes the way of doing business that way, as you can see in how we are managing our commercial strategy in the present and going forward. Another data point on that is that this commercial assertiveness resulted in higher financial prices achieved in the third quarter. So you can clearly see it and you can basically calculate this back to our financials. Then in the third quarter, because we managed to concentrate our resales through the traders and distributors post the winter seasonality in the fall of restocking cycles, we managed to achieve higher realized prices, actually. If you think about it just this week, we were managing to get pricing indications for $900 for the October ship. Had we priced that boat when we shipped it, it would have been $750, which was the bulleting price.

So it's, again, bigger point that indicate that we have made the perfect pivot in our commercial strategy by increasing the control of our resales or [indiscernible]. But again, this was just enabled by the cadence, the performance of our business, which drove us to obtain higher -- larger trade finance credit lines and therefore, managed to have this sort of commercial control over our trading partners.

This slide is a bit of a more detailed, but it's important because we talked about the cash generation. So we want to dissect a bit how the cash position floated from the beginning of the quarter to the end of the quarter. So the first element here is that the sales revenue for the quarter before the nonprovisional price adjustments basically brought a positive inflow of USD 45 million. Then we had a working capital increase here of $56 million. But then within that, there was a portion from the collection of account receivables from the previous quarter. So netting it out, we ended up with a $32 positive $1 million, right?

An interesting item that generated quite a lot of questions in the previous quarter, but we're demonstrating here now that it was basically mark-to-market of currency. We just had a small foreign exchange fluctuation. And again, it results from the Brazilian real volatility given that our costs are in Brazilian reals, our revenues are in dollars and so the small volatility. In fact, here, the currency is our ally because we have dollar revenues and we have emerging market currency denominated costs, right? And I think lastly, you can see that this robust operational cash flow generated allow us to basically retire drawn but non-use trade credit finance debt.

So we just repaid $40 million in trade credit finance debt. And again, going back to what Rogerio was saying, this is because now we have the confidence that the MDS is signed, binding done. So essentially, we will need to keep this large cash balance from drawn trade lines in order to fund our construction in the next 12 months. Again, this is another slide just to reinforce our comfortable liquidity position. So you can see our cash position at USD 65.6 million. Again, all numbers in this presentation are U.S. dollars. And then when you look at the short-term debt, it offsets this USD 59.2 million, which are current short-term trade lines, which are still in our balance sheet and we're actually gradually lowering that number as we advance towards the first disbursement with BNDES. .

There's $10.8 million here, which refer to the short portion of the long-term debt with Synergy Capital, one of our shareholders, which you can see here in the long term that portion of the slide. More importantly, on this slide, it demonstrates that we have robust access to liquidity at improved interest rates which result from this consistent operational performance. So essentially, as for trade credit lines, our deliver and assessed and evaluated by banks based on performance risk. Performance risk is the ability of the company to produce, sell, deliver the product, exporting every single month.

Now as you've seen, our production in sales cadence now over 5 quarters, over a year, basically, more than a year, has basically allowed us to have this robust access to export credit line facilities at much improved interest rates because of this consistent operational performance. So at the bottom here, we actually break down our interest rate cost by type of that facility.

So you can see that our export credit lines with Banco do Brasil, Shanghai, one of our biggest export trade partners, actually, the biggest at for trade partner is 5.5% in U.S. dollars fixed and that's incredibly attractive. The overall trade finance in the domestic Brazilian market, it's sitting at 9%, which again is a substantial decrease from the 15% where it used to be just at the beginning of this year when we haven't yet established this 1-year long operational performance cadence.

Just to recap, the BNDES debt sits at a very comfortable 2.5% fixed in dollars and then our current long-term debt with the Synergy Capital , our very esteemed shareholder sits at 12.3% for that current long-term debt, which, again, is an extremely benign facility, and we're very grateful for Synergy Capital for having delivered as this vote of confidence in December 2022 in order to commission our front line.

And again, speaking of that, where are we headed? We're going to continue to deliver on our strategy. I mean, again, we are low cost. We're generating operational cash flow. We managed to adjust our commercial strategies to navigate lithium cycle. So we are going to deliver on a strategy to increase production capacity again.

And so a quick recap here. We are expecting to reach 100,000 tonnes per year of LCE equivalent production capacity by the end of '26. And here, we kind of break it down in blocks how we're going to get there. More importantly, we are going to build 20,000 tonnes equivalent of LCE, of concentration capability to fully back integrate into a potential lithium sulphate chemical plant. This is a key part of our strategy. If anything, because we'll be executing the metallurgical reduction of our own premium lithium concentrate. So we're going to bank on our own metallurgical premium pricing for our shareholders, which is in the order of 20% to 30%.

So looking at this page, so where are we? We're here entering 2025. This is where we are headed. We are completing -- we're executing the plant to construction. So that -- the capacity there in LCE equivalent is shown in 34,000 tonnes. Then we have the Phase 1, which is delivering a 37,000 tonnes equivalent. Now we continue on this construction project, and we have more pictures from the book posted online to show you that we've really cleared the area to prepare for earthworks throughout.

So basically, we'll clear it for the Phase III as well, which will be essentially approximately 35,000 tonnes out of the 54,000 tonnes over here. It's important to notice that, that's not yet funded. So the blue are the portions that are not yet funded. So when we look at the overall, when you look at the full-on capacity increase here, we see that we're going to have 105,000 tonnes of lithium concentrate capacity. And then we're going to -- we plan to have 20,000 tonnes of integrated chemical lithium sulphate capacity by 2027.

So this is sort of how we set out our strategy, and we are going to execute in the typical prudent and conservative way that we've always done. And this is what enabled us to deliver on these industrial facilities on budget and on target. And more importantly, with a financing structure that is conducive to the company's cash generation and repayment capability. So that discipline is what enabled us to get here, and that discipline is what will enable us to get there.

So my closing comments. So over the year, we transformed Sigma. We're very proud of what we built because we transformed Sigma, and we placed this company as a leading global lithium producer. More importantly, we demonstrated that we're one of the most resilient lithium companies to all the cycles. That is the result of the operational discipline, the low cost and obviously, the industrial prowess to allow us to deliver this on a large scale.

We have a phenomenal team. We got [indiscernible] on the line. We have all of our technical general managers sitting on site. So we're very, very proud of the commitment of our team. Just recapping what we've done in 9 months out of this year. Essentially, we achieved the financial independent. So we managed to basically adapt and strengthen our commercial strategy. We signed this transformative development bank loan with BNDES, building what we believe to be a lifelong partnership of progress in the lithium industry in Brazil together with BNDES. Then we managed to declare the final investment decision on Phase II and mobilize to deliver the earthworks and the construction engineering you can see happening.

Also, last semester, we increased our mineral resources by 40%. So demonstrating that we got an ample reservoir of mineral resources and mineral reserves to deliver on the production capacity targets we just outlined on the previous page. Again, we began Phase II construction and achieved the cost guidance we set out at the beginning of the year in one of the first conferences.

And we surprised the market in our ability to be disciplined and to get there given that at the time, our financials were still cluttered from the commissioning expenses. So what's next? Well, it's going to be boring now. We're going to be executing on time, on budget, and we're planning to have a Phase II commissioning in the third -- initiate commissioning in the third quarter of 2025.

So with that, I close the presentation, and we move on to the Q&A. Matt, on to you.

Matthew Porter DeYoe
Executive Vice President for Corporate Affairs & Strategic Development
Thanks, Anna. I think Rob, we will pass it on to Q&A. I think we have a few questions on the line, if you'd like to start moving to the list.

Question and Answer

Operator

[Operator Instructions] Your first question today comes from the line of Steve Byrne from Bank of America.

Stephen V. Byrne
BofA Securities, Research Division

I have a couple of questions really directed at your commercial team. Are they perceiving any changes in interest level from your converter customers in your spodumene, is that interest level changing? Are they seeing increased interest? Is it flattish? Is it slipping? And is there a change here because of any increased interest in your product because it has the processing benefits? Or is there a sense out there that supply and demand may be inflecting here? So a question on that. And then also, how far out do you book orders? Is there anything there that you can comment on for us with respect to what you think net realized pricing could go to from here in this quarter or next? Is there any inflection that you're seeing?

Ana Cabral-Gardner
Co-Chairperson & CEO

No, these are 2 very good questions. The first question is you hit the nail in the head here. As we now have basically a year of data points or at the time we decided to make this change, we had about 6 months of data points on the performance of our material with the customers. It became clear to us that because we haven't been able to fully monetize the metallurgical premium of our product, our product would always sell. But not only that, it would always sell and it was seen as a source of blending material whereas a source of gross margin by the towing and the downstreamers that engage in towing arrangements because that debt metallurgical premium is actually enabling a 20% to 30% cost savings to the customers, which were not priced in the product.

So we had that confidence that we would always be able to sell our entire cargo loads. With that confidence, we were able -- we decided to switch into, what we call, the traders distributor commercial policy strategy. Why? Because that is how we managed to navigate the seasonality by essentially organizing with the trader to resell the product just after seasonality, which ties back to your second question.

We kept on taking orders in the order book throughout the year. And this is sort of how we get our own data points on the ground of the switch in sentiment from the other element that is there, which is a pickup in demand in China given the initial results of the stimulus in the new energy vehicle industries. And the auto sales increase of 44% in September showed that. So by collecting orders throughout the down cycle of the low of the summer and then entering in the fall and then throughout the fall, we were able to ascertain what was the changing sentiment directed at? And that's very easily triangulated with the GFEX and therefore, execute all the trade extremely well, basically at once almost like within very few days of spacing out throughout some of those weeks in October.

Now the second part of your question is also very important because as we were entering, we can't time the market perfectly, obviously, but as we were just entering the period of restocking the seasonality, the benchmark was showing 750, but we were able to collect orders and book trades at 820, 800. So a $70 per tonne difference to benchmark, which is sizable, right? But then more interestingly, as we held back our -- the traders distributor was able to hold back part of the resale of the October cargo just now this week, we've seen data points of $920. And again, now we're learning that this it is very easily triangulated with the GFEX. So this ability to actually navigate the seasonality, meaning contrast that to us selling these shipments on the water throughout the summer low cycle, we probably would have had shipments priced at $700 which were some of these benchmark indices showing at the time.

So -- and we unfortunately experienced that pain earlier in the year because our trader was the principle. So we didn't have the ability to co-control final resale decisions that come with the relationship change into traders distributors. So we're very proud of what we achieved. But again, it took us a month -- it took us a few months of being actively in the market, having our commercial team, we have commercial people in China now to be able to gather what we believe is a pretty good reading of the market dynamics in Asia.

Stephen V. Byrne
BofA Securities, Research Division

And Ana, maybe just one follow-up on that. With some shuttered capacity in Australia recently, are you holding back again? Or are you perceiving any increased interest in buying from your customers?

Ana Cabral-Gardner
Co-Chairperson & CEO

Well, I think there's a deeper issue behind this. And that's related to traceability, lithium source from artisanal mining, illegal lithium and all that we've been watching in the market this year. As we all know, the volume of the shuttered capacity wasn't meaningful to actually have a real effect in the market. It had a psychological effect in the market because it kind of demonstrated that some of the mines in higher-cost jurisdictions are not economic at current lithium prices. But that leads to the question of who is economic in current lithium prices. And essentially, when you run the math, you have the 2 large-scale producers in Australia. They are economical because they have the scale and they're very efficient and then Latin America and then Africa.

But then you examine some of the supply that comes from Africa, that's okay, it's industrial lithium, fair game, excellent, lifting to people, but some of that supply is untraceable. So I think the market -- the real market dynamics we are experiencing on the ground in the industry this quarter is an increased scrutiny over the source of raw materials of that chemical. And some of the carmakers, they are very aligned to sustainability and ESG practices are actually leading that charge with their supply chain.

So we've been seeing joint procurement initiatives between battery makers and carmakers are clients, right? We see quite a lot of interesting developments. So the real development here is now there's a spotlight in the industry, basically asking, well, do your employees wear helmets, are your minds traceable, is this artisanal, are you ethically sourcing your lithium, which probably will displace a much larger quantity from some of these materials mined and complete this regard to the 21st century and the new era of valuing the individual and valuing human beings that we see taking place in the century.

Operator

Your next question comes from the line of Katie Lachapelle from Canaccord Genuity.

Katie Lachapelle
Canaccord Genuity Corp., Research Division

Congrats on a good operational quarter. I do want to understand the provisional pricing adjustment a little bit more this quarter. It was quite a bit higher than what I was expecting. I noticed in the prepared remarks, you stated that it was related to a shipment from Q4. So I'm just trying to understand why such a significant delay, like why was this only being reported now in Q3? And then going forward, are any of these adjustments expected to continue into the fourth quarter? Or are we kind of through the worst of it now?

Ana Cabral-Gardner
Co-Chairperson & CEO

No. I mean, it's -- we closed out this open trades. And we -- this is basically an accounting closeout of the trades. And essentially, you can see in the year-to-date -- yes, that's there. We can see in year-to-date, that's why we did year-to-date. Every quarter, we've been getting these questions about this provisional price adjustments. So I'll start with a picture in year-to-date. As you can see here, basically, most of it is related to the fourth quarter of last year, right? So $20 million of the $29 million is related to the fourth quarter last year. So why the delay? Because this trade stayed open, and they will be rolling into these commercial relationships and sell with the previous -- with the unpaid portion of the previous shipments.

As we change the contracts and change the commercial relationships completely, we just closed out this in our books. So essentially, what we're showing here is basically the complete closeout of all these open trades, G2, G3, G4, basically, all the trades -- the 6 boats all the way from the fourth quarter and the first quarter closed out completely on an accounting basis, right? So interestingly enough, this closeout generated a positive cash inflow of USD 7 million because that was the remained unpaid portion of those trades that actually we got to receive, and we were no longer rolling out into the subsequent boat to absorb either upward adjustment or negative cash adjustments.

We can go through that in quite a lot of detail with you in the call, we have a page in a posted material online that kind of shows that Matt did that -- it was very good work. If we reallocate all these adjustments to each respective quarter, you can clearly see how they even each other out and show that -- the trades are actually accurately marked in our book. And again, this was a closeout of all the open book trades, right? So mostly related to the fourth quarter.

Now why the fourth quarter? Because that's when the price dropped precipitously. We had done the markup, it had been -- we suffered that cash hit throughout the year, but then the accounting books, given that these boats got shipped in the first quarter, we were evaluating whether those prices were actually correct because they seemed too low if compared to the benchmark in December. But as we all know, the price actually fell lower than the benchmark could capture throughout the fourth quarter. So it was what it was. So it took us a while because we were closely examining each one of the deliveries to be absolutely sure that, that was the actual correct realized price.

Katie Lachapelle
Canaccord Genuity Corp., Research Division

Got it. Maybe a follow-up question. I just want to pivot a bit to Phase 3 and 4. You are talking about those expansions more. I know it's still early days, but how are you thinking about maybe the capital cost for both of those or how you're thinking about funding those? Because we are sitting almost in 2025, so 2026 and 2027 is pretty soon.

Ana Cabral-Gardner
Co-Chairperson & CEO

No, I mean, we have obviously quite a competitive advantage in now this development bank relationship with BNDES. What you see in front of you is what we presented BNDES with as our complete industrial development plant for processing lithium and for aggregating even more value to lithium in Brazil, delivering the lithium chemical. So they've been an incredible partner for Sigma. And so essentially, the way we see the funding, well, first, the amount of funding. As you recall, and we posted that slide again online, it's more of the same. We're going to build a third plant exactly like the second, which is exactly like the first. Mine was the infrastructure.

So looking at the final CapEx for this second plant is going to cost us around USD 98 million -- USD 95 million depending on the BRL rate, which works to our favor. Because about 70% of the equipment is actually nationalize is Brazilian, right? So that's Plant 2. Plant 3 will be the same. So our typical DMS Greentech plan costs about that much, $100 million. Now the current infrastructure supports 3 lines. And this is why we highlight 105,000 LCEs, right? That's what's built in infrastructure on site. Well, in order to build a fourth concentrator there, what else do we need to do? Well, we need to add capacity in the water treatment area and in the substation, adding more transformers to power the fourth line. That is not a whole lot more infrastructure. That should be around up USD 15 million to USD 20 million in infrastructure versus the USD 50 million in infrastructure that we spent to put it all there.

Why? Because the industrial site is prepared, the pipeline that brings the water, the sewage water from the [indiscernible] River to site is already there. It's a 6-kilometer pipeline. All of it is there, and that takes care of 4 units. But operationally, we need more water treatment capacity and we need more power. Now the intermediate lithium chemical, we haven't concluded the studies. So we will be talking about the CapEx there once we conclude the studies. But again, I will advance that we will do this the Sigma way, which is the China way. We've demonstrated that we built it quite cheaply in Brazil.

In fact, we are looking to partner with the larger producer of [indiscernible] rotating kill equipment in China, which is used by [indiscernible] in North Carolina, is used by everyone around the world in order to deliver this unit. It's a quite simple unit. I mean, it's a rotating kill and an acid leach unit, so formic acid leach unit. So better spodumene acid leach lithium sulphate. So it's not all the way down to specialty chemicals. Now with that, we plan to become the linchpin of a global chemical-to-chemical supply chain. And perhaps making life easier throughout the Northern Hemisphere for all of our potential customers that would want to set up specialty chemicals in their own territories. We'll be shipping chemicals. We will be upcycling the waste here in our cement industries in Brazil, so zero waste. And therefore, we assume a clean chemical material and they don't have to deal with the waste generated in this reduction process, which is quite large. It's 12 tonnes of waste per tonne of chemical.

Rogerio Marchini
CFO & Executive VP of Corporate Finance

Not to belabor this because again, we will release more details in the study. But I think just to add, right, the goal is to not compete against China in the carbonate or hydroxide markets, given what we see as a highly subsidized business there and pretty competitive margins. Our goal is to still sell into that market and bank what we think is the value and use we have domestically as well as the local economics. Sorry, Ana for chiming in.

Ana Cabral-Gardner
Co-Chairperson & CEO

Yes. We will supply China. In fact, the litmus test for this strategic decision was that we received significant interest from our clients in China because I think the cherry on top is that we can deliver negative carbon lithium sulphate to China. So perhaps we could even enable zero carbon lithium carbonate chemicals in China and help decarbonize the entire lithium supply chain. So again, interest from everywhere, we're here to deliver a product that's going to be globally competitive. Half the market is China, half the market is the rest of the world, so competitive all over. It isn't something we're doing just for part of the market. It is, again, like our lithium oxide concentrate is a globally competitive product. And at that, we get the development bank financing because their mindset is to finance what we call the industrial champion, the Brazilian winning companies that actually are gaining market share and positioning Brazil globally in key export industries, in this case, critical minerals lithium.

Operator

Our next question comes from the line of Joel Jackson from BMO.

Joel Jackson
BMO Capital Markets Equity Research

I'm going to ask a few questions one by one, if that's okay. Just maybe following up on Katie's question. So if we think of the Q4, should pricing be similar to Q3? Can I think about -- you've given production, so can I think about grade and cost being similar? And you said you've closed out some of the Glencore stuff, but again, for pricing, can we think about it being similar to Q3, better worse so far?

Ana Cabral-Gardner
Co-Chairperson & CEO

This is basically third quarter. You can see on the screen. So we actually booked final trades at 820. We will hover -- the market oscillated because it became very volatile for a while in October, but it's here. Can you see this screen? Yes. Yes, there you go. Yes, that is -- so you can see -- yes, we're all seeing the same screen, exactly. So this is third quarter, and it's pretty close to final. In fact, 820 was a trade we booked, final. So it's -- you're going to get the same ballpark. And we're showing you the great adjustment as well. So from -- it's from 6% to 5.2%. So that's kind of the question now, right?

So essentially, how does grade work here at Sigma? We're probably one of the few companies that could be delivering 6% without that much loss to volumes. But because nobody else is, and this is not appropriately priced, clearly, right, what we do, Joe, is we set our product to Australian quality. So we harnessed what was being offered by our trading peers and what kind of grade they are offering in the market. And we adjust our plant down to that grade because it's very easy to adjust that, right, hard is to adjust up, so that we benefit from a rather exponential increase in volumes when we conduct that process or we bank that over as inventory.

Joel Jackson
BMO Capital Markets Equity Research

Okay. That's helpful. And then a couple of questions. So I wanted to ask about production of Phase I and then thinking about Phase II. So I'll ask a couple of questions at once here. So as recently as a few quarters -- a quarter ago, you were really talking about $22,000 a tonne production and sales run rate. Now you sell into $20,000 tonnes -- $20,000 a month. Now you seem like you've sell at $20,000 a month. So the first part of the question is, what's kind of changed between the 22 and the 20? And second part of the question is, I think you've maybe made a big contractor change for Phase 2. Can you talk about that? It seems like you spent very little CapEx on Phase 2 in Q3. So talk about the contractor change, how much CapEx you spent on Phase 2 so far maybe October, November. So a couple of questions there.

Ana Cabral-Gardner
Co-Chairperson & CEO

Well, let me talk about the production first. 60,000 is guidance because essentially, we conducted our efficiency project this quarter. So we're hoping to guide and beat guidance again. But the cadence of 22,000 is actually a very good -- is a great observation. We've always -- we try to achieve that cadence. But what we -- the real accomplishment as we harnessed our operational capabilities here and increased the performance excellence was to shorten the space or the number of days intervals between each shipment. So as we announce each shipment, you can easily ascertain that by looking at the announcement. They became shorter and shorter and now they're close to 30-day cadence, right?

So this kind of gives you an indication where we're going, meaning we're shifting 22,000 every month. So multiply by 12, that's it. So as we haven't done that throughout the whole year, so we're basically guiding and hoping to be guidance. But ultimately here is that frequency decrease of the same volume that is actually the real accomplishment because with that, we are increasing the total quarterly production. So that was your first question. Then your second question is about Phase 2.

So we are planning to publish a more comprehensive update on Phase II shortly, and that will have the CapEx disbursed total for the Phase II. But we estimate now that with the first BNDES disbursement, and that's an important point you made that I'm going to reiterate. The first is [indiscernible] BNDES is spending of the bank guarantees. So when it happens, when we get the first actual cash in the banking flow, that reimburses us for all the CapEx spent in arrears since the moment BNDES announced our loan which was February 9 of this year.

So everything we spent in CapEx screwed out gets reimbursed at once in that first disbursement by BNDS. So it gives us sort of a boost because we've been using some of the cash generated to pay for CapEx, for instance, this quarter, it was $5 million. But then we kind of get to recoup that at once as a boost of cash inflow. We estimate now that, that sits probably close to $25 million. And again, there are fluctuations here because of the devaluation of the real currency, right? But just to give you guys a number in dollars, it should be around $20 million to $25 million, right?

And again, it's mostly real expenditures. So that's the number that we have incurred on to date on the CapEx. The third question was around the contractor change in Phase II and what have you. It wasn't really a change. What we've done -- and that's a very good question, too, because we wanted to clarify that point. We maintained the same engineering company, DRA, that actually worked on our filed feasibility study in SEDAR in the 43-101, which we will be updating together with the annual filing.

Well, we haven't changed, and that was a significant change, but it's a natural change, it's the way we're going to manage that construction. Because in the Phase I construction, we relied on a local engineering company with -- for safety for local management, local engineers for basically running construction because we didn't have a construction team in-house or project management capabilities in-house or much of that. So we were entirely reliant on our engineering contractors to actually deliver that construction. That is the change.

This construction is being done in-house with our team, with our personnel because we have probably one of the best project teams in the whole industry based on all that we've executed in the very Plant 1 throughout the last 12 months in terms of implementing operational efficiency. So essentially, that project team has already been clearly demonstrating their incredible execution products. And this [indiscernible] which sits in the filed materials actually shows that we executed a full plant shutdown with 2 major pieces of equipment assembled and commissioned in 4 days.

I mean -- and I even put here what the plan was and the real was and we were having like 3 daily calls with the team to kind of follow the progress of how this was being executed, but essentially that we call the efficiency project for the Greentech plant was -- has been executed over many months, but it was actually constructed in 4 days, right? We got all the equipment to site, we got it already. We shut down the plant, put the equipment up, it was marvelous to see how well-oiled machine we have in terms of our maintenance teams, project management, all of it, right?

So in fact, the result of that, I'm going to reiterate, we're already partly reflected in third quarter, but it's going to be mainly reflected now in the fourth quarter, and that will be the potential increasing production of another 10% to 15%. In another picture just to show that -- and I really want to show this picture. So you see here the screens on the ground, 3 days later, they were up and running. This is the screens to upgrade the ultrafine circuit to improve the feed mix. So essentially, it's optimization of capacity where [indiscernible] and what have you so that we optimize our DMS capacity to 230 tonnes an hour to probably 240 to 250 tonnes an hour.

And here, the same with magnetic separator. So you see them on the ground and literally, in 3 days, they were up and running, which is for all of you who know magnetic separators is an incredible accomplishment from our industrial team. So again, the purpose here is to clear out, again, the iron oxide and also remove the ferrosilicon and recycle the ferrosilicon. So we're very proud, I mean, of the commitment and the prowess of our teams and particularly our industrial team.

Operator

Our final question comes from the line of Shannon Gill from Cormark Securities.

Shannon Gill
Cormark Securities Inc., Research Division

Just following on from Joe here. Can we expect increased recoveries in Q4 with the ongoing plant optimization and in Q1 of next year as you move from using mobile crushers to a fully optimized Phase 1 plant crusher? Can we expect continued recovery increases? Can you just speak to recovery there?

Ana Cabral-Gardner
Co-Chairperson & CEO

Absolutely. So you made 2 excellent questions, and I want to bring this point back again. Essentially, we are indeed going to experience increase in global recoveries. And I want to take the opportunity to clarify a fallacy and a misunderstanding about our plant recoveries. I mean, we're basically getting to plant recoveries in a dense media separation. There are -- that is the highest in the world. This has never ever been achieved. It's 70% of DMS recoveries. But then you look at our global recoveries, meaning total recovery, it's 55%. So that gap is up for grabs. It's opportunity for operational improvement, also by managing to reprocess and to treat and concentrate the fines that are responsible -- ultrafines that are responsible for this difference into that DMS Greentech plant.

We have 2 projects that we are planning to achieve that. The first one, we just executed. So absolutely yes. That's the answer. We expect these recoveries to kind of reach pretty close to 60% or perhaps more in global recoveries because what we put here was a circuit that in addition to optimizing the capacity of the GMS itself, will actually improve the recoveries of the lithium mark side in the ultrafines, one.

Then mobile crushers. Mobile crushes was a different matter. What happened to mobile crushers, it was a design engineering change. In other words, we contracted mobile crushers in -- with a local Brazilian supplier. And the method through which this crusher executed their tasks, instead of having the motor and the screen separate, sliding on each other, their design was one where the screens and the motor was connected and they would slide together. So any issues in screens would mean we would have to stop the crusher. We've been dealing with it most of the year.

And then finally, we had enough of it, decided to put in 2 mobile crushers in June and July, to basically pick up the balance of our main crushers so that we would run our crusher at a lower capacity and then change the way that flow occurs. In other words, we went to the original parts manufacturer in South Africa, it's called [indiscernible] and we're getting the new circuit, where screens and motor vibrate separately so that the pressure is more resilient operationally. And therefore, we expect the crusher to be a non-hinderance because, again, we have this incredible dense media separation Greentech plant, and we're having issues with a crusher, which is kind of basic. It's the most basic part of our circuit.

So think about this, we fixed the Model 3, the dry stacking, which doesn't even exist in the industry. That was last year. Then we perfected the dense media separation to process lithium like no other in the world. So we basically evolved this technology, and we were getting stuck with lower production volumes because of the crusher. It was kind of sad, right? So we decided to tackle it at once and essentially put mobile crushers, which are here temporarily. So they're costing an extra $25 a tonne. But then in December, we decommissioned the first and then in February, we decommissioned the second, we built a nice stockpile to actually change that crusher flow sheet.

Rogerio Marchini
CFO & Executive VP of Corporate Finance

I'd say one more thing. All of these changes comes back on Phase 2. All this investment, all this work flow will come [indiscernible] work we have to do again. So less [indiscernible] capitalized. Rob, if you want -- Ana, if you want to make any closing comments or...

Ana Cabral-Gardner
Co-Chairperson & CEO

No, again, I want to thank you for your trust, for your confidence, for believing in us executing through the lithium market ebbs and flows. As we demonstrated, we're one of the most resilient businesses in the industry. We're in a low-cost environment. This is now being underwritten by some of our competitors in other parts of the world, which we're all welcoming here in Brazil. So again, I want to leave the quarter call with a message of, what we call, sober optimism because one thing for sure, we reached the floor, given that so much of the traceable compliant production of lithium is not profitable at these levels, we are, but unfortunately, most of the production of traceable material isn't.

And the industry is clearly increasing the game, raising the game on procurement and focusing on examining traceability of the product. So we believe that with the removal of kind of a lot of untraceable material, mainly coming from Africa, we're going to see -- we saw the floor being placed in the industry, and we're going to see a decent year in 2025. And I think from there, as you can see then in demand, the dynamics is there. China has been posting very, very robust EV growth numbers for a market than large and with a penetration that large. September was 44%. October is reaching 50%. EV uptake is over 50%, which is a record number. China will be probably almost 60% of the global in the industry by the next quarter. So it's extremely healthy there. One of the key recipients of the stimulus, the various stimulus being directed at the economy. So again, it's a message of sober, cautious optimists entering into the fourth quarter. Thank you.

Operator
This concludes today's conference call. Thank you for your participation. You may now disconnect.