HINDALCO INDUSTRIES LIMITED

Investor Day Held on April 1st, 2025 at 4:00 p.m. (IST)

Moderator Very, Very Good Evening, Ladies and Gentlemen. A very warm welcome to Hindalco's Investor Meet 2025. My name is Zinia Fernandez, and it's quite an honor to be standing here and welcoming all of our distinguished guests who are present here today in person, and of course, the many participants who have joined us virtually from across the globe. It's a pleasure to have all of you here as we embark on a very insightful journey into Hindalco's vision, its performance, and of course, the future.

This evening, let me begin by introducing the leadership team. We are honored to have

Mr. Kumar Mangalam Birla, Chairman of Aditya Birla Group and Hindalco who will be joining us virtually. We all know him as a pioneer of corporate excellence, of governance. His leadership has shaped several industries. He's driven responsible businesses, and most importantly, he's redefined the global metals and materials space. We also have with us here in person the Hindalco leadership team.

Mr. Satish Pai, Managing Director Hindalco. We're also joined by

Mr. Steve Fisher, President and CEO Novelis,

Mr. Bharat Goenka, CFO, Hindalco, and

Mr. Dev Ahuja, CFO, Novelis.

Now together, this is the leadership team who is at the helm of Hindalco's growth and its transformation. So today promises to be really a session that's filled with both strategic insights and valuable discussions as the vision of this leadership team continues to shape the company's success with a very keen focus on driving innovation, sustainability and of course excellence across the industry.

May I now invite Chairman of the Aditya Birla Group, Mr. Kumar Mangalam Birla to join us virtually and to share his vision with all of us.

Chairman Good morning and good evening to all of you, our valued investors and analysts who have joined us today from across the world. On behalf of the Aditya Birla Group and Hindalco, it is my immense pleasure to welcome all of you to Hindalco's Investors Day 2025. I must apologize to you. I was to be there in person, but because of a business exigency, I've had to excuse myself. This, as you perhaps know, is Hindalco fourth annual investor day.

It's a platform where we look to engage deeply with you, our key stakeholders, and share our business strategy, our performance, and importantly, our vision for the future. Looking at the global landscape of business today, we find ourselves in what I call the U3 world, a world that is uncertain, unpredictable, and unorthodox. Geopolitical complexities, energy, volatility, supply chain disruptions are all restructuring the contours of global business. And amid these headwinds, one thing remains clear, change and disruption are no longer exceptions. In fact, they are constants. Hence the key is not to resist them, but to embrace them.

Today, globally non-ferrous metals have become quintessential to growth and to building for the future. Aluminium and copper, with their unique properties, have become game changers across a wide breadth of sectors, for example, infrastructure to electronics, manufacturing to autos, and telecommunications to energy solutions. But what completely and truly completes the picture is that these metals of the future are concurrently indispensable to achieving sustainability goals for business. The transition to green energy, the rise of electrical vehicles, light-weighting energy storage systems, and a growing focus on recycling and circularity all further boost their demand.

I would think that the world is more united than ever before in its growing need for these metals, but we must also at the same time recognize that the world is more divided than ever before in its access to the supply chain of these metals. Destruction in global trade channels such as those caused by the pandemic along with the global push for metal self-sufficiency have exposed vulnerabilities leading to greater efforts to secure and diversify supply sources. And as a result of that, these metals are now considered strategic resources, strategic assets necessary for national security and economic stability, and also influencing policies at both local and international levels. In this backdrop, it is our core belief that businesses today, more than ever before, bear the responsibility for shaping a better tomorrow.

At the Aditya Birla Group, we call this being a force for good. And I can proudly say that Hindalco has always been, is, and will always continue to be a force for good.

At Hindalco, we are future-facing, we are agile and committed to global leadership in the non-ferrous space. Today, we are India's largest fully integrated aluminum player, and in the same breath with Novelis, we are the world's largest flat rolled aluminium producer and the largest aluminium recycler. In copper, we operate India's largest single location custom smelter, which is also the second largest producer of copper rods outside of China. With this portfolio, we straddle the complete value chain, offering an unmatched suite of sustainable high-performance solutions to customers across industries.

Over the past few years, we have been on a focused journey of transformation, staying focused on strong financial discipline, which has always been our strength, and prudent capital allocation with sustainability leadership while it's growing for the future. And this has translated into a more sustainable vision for Hindalco going forward. To capture this ambition, we recently unveiled Hindalco's new master brand identity, it's called Hindalco H, which is to me a bold declaration of what we are today and of the future that we are building. It actually reflects our transformation from being just a pure metal producer to an engineering solution provider that is innovation-led, sustainability-driven, and with a highly customer-centric approach. This embodies our commitment to being a catalyst for change, to being a force for good.

Let me now reflect on Indalco's overall performance and where we stand today. Like I said earlier, Hindalco has today emerged as a global leader in copper and aluminum with fully integrated operations, industry-leading margins, and a global footprint that spans 10 countries and 52 manufacturing locations. Our overseas subsidiary, Novelis, as you know, continues to be a global leader in aluminum beverage packaging and automotive solutions. In 2024, Novelis delivered over $1.8 billion of adjusted EBITDA with 63% recycled content, where 82 billion cans are recycled annually. That's 82 billion cans.

To keep you informed, we are making solid progress on our $4.1 billion project at Bay Minette in Alabama, which will be commissioned in the second half of calendar year 26 and will support the growth and the demand growing for sustainable aluminum in North America. Our strategic focus at Novelis remains threefold as outlined by a 3x30 vision, decarbonisation, circularity and industry-leading ROIC.

In India too, our growth momentum is equally strong. We have laid out a very comprehensive India growth infrastructure architecture across aluminium upstream, downstream, specialty alumina and copper. Over the next five years, we plan to invest over $5 billion in India across these businesses. Our focus is very clear, expand high-value, high-growth downstream capabilities, e-risk to resource securitization, and tap into emerging opportunities in EVs, in electronics, and in renewable energy in India. And within this, let me share some highlights with you from our growth strategy across businesses.

To start with, in aluminum upstream, we plan to expand our aditya smelter and also set up a new 850,000 tons per annum alumina refinery with a bauxite tie-up with the Orissa Mining Corporation. We are also pioneering low-carbon aluminum production using renewable and RTC, which is round-the-clock green power solutions, which will be a first of its kind initiative in India.

In aluminum downstream, with the commissioning of a new 170,000 tons per annum FRP facility at Aditya, we raise our downstream capacity in India to 600,000 tons per annum. In addition to this, we are also making strong strides into newer products like battery foils and fabrication plants catering to EVs. Hindalco’s battery foil plant at Aditya and fabrication facility at Chakan are poised to deliver high performance, sustainable alternatives to traditional automotive components in India.

Additionally, we're also getting closer to the customer, which is a big thing, a big thing for us by building our in-house B2C brand or Eternia for windows and facades. Another strategic area that we see from an India point of view is defense and aerospace. Hindalco you'd be interested in knowing is developing hard alloy products for the defense sector and is also supplying high-performance aluminum, copper, and specialty alumina for critical ISRO programs such as Chandrayaan, Mangalyaan and the upcoming Gaganyaan.

In specialty alumina we are a top three global player with a very differentiated portfolio of high margin high growth products which are used for flame retardants, batteries, electronics, ceramics and catalysts. Our sales volumes in this business have grown to over 400,000 tons per annum and we are now on a trajectory to cross the 1 million ton per annum mark in the next three years.

Moving on to copper, in copper we are on the verge of executing a 300,000 tonne per annum cement expansion with India's first backward integrated copper tube facility along with the 50,000 tonne per annum copper and multi-metal recycling facility which again will be a first in India. On the copper downstream side, we are expanding into high-tech products like copper tubes, battery foils, and circular solutions. Critically, we continue to deliver on all of the above with fiscal discipline. Over the last decade, our EBITDA has grown at a steady CAGR of 13% and EPS by a CAGR of 17%.

We have strengthened our balance sheet, which probably you know, with a consolidated net debt to EBITDA at 1.33 versus 6.5 times a decade ago. We remain committed. We remain committed to keeping this leverage below 2.5 times even as we continue to invest for growth. What is driving all of this. I believe that Hindalco must not just be a producer of metals but in fact a solution provider for our customers. Our transformation is not just to get future ready, but to be future shaping. We are embedding co-creation of solutions with our customers, the digital innovation and sustainability into every part of our business. Whether it's lightweight battery enclosures for EVs, high-speed rail components, Hyperloop Test Infrastructure or fire resistant materials for cables and customer electronics, Hindalco is powering progress across sectors.

Let me talk about sustainability because at Hindalco this is not just a checkbox, it is pretty central to our whole value creation model.

For the fifth straight year, we have been ranked as the most sustainable aluminium company in the world by the Dow Jones Sustainability Index. We are also in the top 1% of the S&P global ESG score in our industry and part of the sustainability yearbook for the fourth consecutive year. That is no mean achievement. Our goals are ambitious, net zero emissions by 2050, zero waste to landfill by as close to 2030, and 75% of recycled content at Novelis by 2030.

From building 100 megawatt round-the-clock RTC renewable energy solution for aluminum smelting in Odisha, which I spoke about a while ago, to launching India's first copper and multi-metal recycling facility under the copper business, we are setting new benchmarks in circular manufacturing as well. And our efforts extend further to biodiversity and community transformation, a very important part of our business building process. We are restoring mined outlands into thriving ecosystems and impacting over 2.5 million lives annually through healthcare, through education, and through infrastructure initiatives.

To summarize, Hindalco is not just transforming itself, but engineering better futures. We are entering an exciting phase where our platform is ready, our investments are underway, and our innovation engine is nothing short of firing. Key megatrends – electrification, circular economy, low-carbon manufacturing, and India's infrastructure boom – are firmly in our favor. And we are only just getting started. I would like to thank all of our investors and stakeholders for joining in today and for believing in our journey. I must say that your trust empowers us to co-create and build the future of this industry together. Thank you.

With that, I now hand over to Satish and Steve to walk you through our growth roadmap and our strategic imperatives in even greater detail.

Moderator Thank you. Mr. Birla, thank you so much for joining us virtually, for sharing your vision. I must call that a very encouraging address where you urged all of us to embrace change and disruption and that's how it's going to be. It's now my pleasure to invite on stage Mr. Satish Pai, Mr. Steve Fisher, Mr. Bharat Goenka, and Mr. Dev Ahuja to please take us through today's presentation.

And ladies and gentlemen, let's welcome them with a warm round of applause.

Managing Director of Hindalco Industries (Mr. Satish Pai) Thank you everyone and good afternoon to all of you. Today we are going to take you through the Hindalco business, both in India and Novelis. I think what we are going to try to show you is a little bit, as Mr. Birla said, where we are coming from, what is our strategy going forward, and some of the things that I think differentiate Hindalco from some of our competitors. So first I start with the safe harbour statement and moving on the presentation today will have our growth strategy and I'm going to cover a little bit on some of the differentiators I talked about. In the part two, we will do a business update of both Novelis and the Hindalco India business. I will touch upon important points like sustainability, culture and our efforts in digital. We will then end with the capital allocation strategy, like we normally do, and I'll summarise.

So the first thing I wanted to cover is that we are a diversified global player. We have businesses that cover India and all the major continents. Our businesses deliver robust performances, as Mr. Birla in his speech outlined, and we are going to show you those numbers over the last 10 years. So let me first start by covering Hindalco.

So the Hindalco India business, we are a fully integrated aluminium and copper business. We have very strong operations. I think that in the India business, one of the things that differentiates us that you have seen over the last 10 years through the COVID period is our operational reliability and resilience. So I think this is a very important differentiator for us. We have a proven track record of results and we have also embarked in India on a high value addition downstream strategy both in aluminium and copper. So as you can see from the numbers, a large 3.74 million tonnes of alumina, 1.34 tonnes of aluminium, 430 kT of downstream and also a similar amount in alumina.

We have a copper smelting business of 421kt and sell 500 plus tonnes of copper products from the rod side and downstream. If you take a look at the Novelis business. Novelis is the world's largest rolling company with 4.2 million tonnes of rolling capacity. A very diversified portfolio, very differentiated. It covers important sectors like packaging, which is can, automotive, aerospace and specialties. All of these products are at the premium quality end. And I think that Novelis, over the last 10 years, as you will see when we go through it, has shown a steady growth profile, which we are now doubling down, especially in the US, with the large Bay Minette project that we will also cover.

A little bit about our DNA. we'll talk about our foundations. I'll show you some consolidated numbers of Hindalco's performance since FY14 and some of the things that we are doing to be future ready. So first thing is that Hindalco has been a part of the India growth story. I think GD Birla started in 1958 on the request of Pandit Nehru to set up India's first melter in Renukoot. And in the last 65 years, Hindalco has been providing the non-ferrous, which is the aluminum and copper needs of the country as it has grown. As Mr. Birla mentioned in his speech, we touch 2.5 million lives, a very, very active, well-accepted CSR, Corporate Social Responsibility program that you are all very well aware of. And I think that what we are also very proud of is our sustainability record. I will describe to you, we have a very holistic approach to sustainability and we are seen as the most sustainable aluminium company in the world and make it in the 1% of the sustainability, global sustainability companies covered by Moody's.

This gives you a little bit of idea about the performance of Hindalco over the last few years. This is anchored on FY14, coming to the trailing months December 25. The EBITDA has grown at 12% CAGR, Earnings per share has grown at 17%, ROE has gone up by 6.2 points to nearly 12%, and the net debt to EBITDA which used to be in FY14 at 6.6 is now at 1.3. So a very strong set of numbers over these last 10 years. If you look at the journey of Hindalco, we have sort of broken this up into two blocks, the FY14 to FY20 and then the FY21 to FY25.

So if you take the first five years, so 14 to 20, this was at the stage where we built scale. So we did some large smelter projects like Aditya, Mahan, Utkal was established. We also spent considerable amount of time cleaning up and strengthening the balance sheet which now shows with our balance sheet strength and the net debt to EBITDA. We also well before ESG became fashionable came up with a very broad holistic sustainability strategy that covered everything from carbon to waste to biodiversity to water and which is why our sustainability rating is so high. And then in the Novelis side we did a very aggressive growth, mainly going into the new sector at that time of automotive that has now positioned us as a leader in automotive rolling, and also quite a dramatic scale-up in recycling from the 40% to get to the 63%.

If you look at the last five years, we have done a mix of organic and inorganic investments, the largest being Aleris that we just did during the COVID times. We also did some smaller acquisitions like Hydro's Kuppam extrusion plant and the Ryker one that we took from Polycab. Some large downstream investments like the Silvassa extrusion plant, the battery enclosure one in Chakan, and the Aditya rolling plant that just got is being commissioned right now.

I think it will also be fair to say that we were showed our resilience and our operational strength during the COVID period. I think we are very proud of how we went through the COVID period, the way we took care of employees and their families, but also the fact that we kept all our plants running through this period. And then in 21 to 25, we will show you during the presentation, we did some very efficient, cost efficient de-bottlenecking. So whether it was Utkal, where we expand nearly a million tons of alumina to, in Novelis, whether it was Pinda or Yeongju in Korea, we did some very effective brownfield de-bottlenecking that added capacity.

If we now look to the future, and what are we doing? So we are heavily looking at getting more and more into value-added solutions. We are going to be doing more collaboration and engineering with our customers. This presentation, for the first time, we are going to take you into a little bit more depth on the specialty alumina business that we are investing quite a lot into higher value-added specialty alumina and hydrate products. We are focusing both in Novelis and Hindalco a lot on the EV ecosystem. So whether it's providing roll products or whether it's providing battery enclosures, aluminum foil for the EVs, we are expanding quite a lot because we do see electrification is here to stay.

On the digital side, Hindalco and Novelis have invested heavily into industrial automation. Most of our plants are wired up. We are aggressively moving into process digitalization and a huge amount of day-to-day work into data analytics and predictive maintenance. I'll be showing you some case studies on that. One thing that we are very proud about is the culture of the company.

We are a high-performing contemporary organization. We are one of the few manufacturing companies in India that have been certified in the Great Place to Work. We hire a lot of young people and we are quite aggressive in our hiring programs, hiring about 1,000 people every year, and 30% of them are women. So I think that while Hindalco is known for its upstream security on the bauxite and on the coal side.

I think one of the things that differentiates us is also our culture and the people that we have. And I think that when you go more into value-added products and downstream, the people part is as important as the security on the upstream side for input materials.

The strategic imperatives. So this is where we start to get into a lot of what we're going to talk about. So, Hindalco is going to be a strong upstream player and a strong downstream player. It's not one or the other. So we have been, in the last five five years investing a lot on the downstream.

But in this next phase, we are going to double down on upstream as well. So as Mr. Birla mentioned, and you will see, we are expanding aluminum smelter, a copper smelter in the age, an alumina refinery in Kansariguda. So quite a lot of upstream investments in the next phase combined with the downstream. And on the downstream side, we are going to be working more on getting into value-added stuff on aluminium, copper, specialty alumina and recycling.

Our target is very clearly to get to a 4x level of EBITDA from today's run rate. So this is the true strategic imperative of Hindalco in India. Keep growing the upstream so you keep a strong presence and we grow the upstream and I'll show you because we have got resource securitization that gives us the confidence to do it. But also to get more into downstream value added products going forward because as the country goes this is where we are more differentiated and we can make better margins.

On Novelis,

we are focusing on the 3x30 program, highly focused on circularity, with a target to grow recycling from the current 63 to 75% to keep working on reducing the carbon intensity of the fractural products we sell, and to be a leader in ROIC. So that is to give you an overall of Hindalco, and what we're going to do now is to dive into each one of the businesses. So I'm going to hand it over to Steve and Dev to cover the Novelis business update.

President and CEO Of Novelis (Mr. Steve Fisher) Thank you Satish and good afternoon. I know many of you know who Novelis is, but for those that might be newcomers to Novelis, maybe just a little bit on some key facts and figures. We truly have an unmatched global footprint, global presence with a very diverse and resilient in markets, leadership position globally in beverage packaging, in automotive aluminum sheet, and in aerospace plate. We're in 80 plus countries around the world and what we're really proud of is what we've been able to accomplish over the last decade of increasing circularity through increasing recycled content in our products from a baseline of around 30% to today 63% and we'll talk about where that's going to go. We do that with all kinds of scrap but as you heard from Mr. Birla, one of the key inputs for Novellas from a circularity standpoint is used beverage cans. And yes, we recycle 82 billion used beverage cans on an annual basis. So I think when you look at all of these key facts and figures on this page, you can see that we truly are the global market leader in aluminum flat roll products and the world's largest aluminum recycler.

So you've seen this a few times already, just under a year ago we launched a new vision and truly believe as leaders in the industry, we are the driving force to advance aluminum around the world as the material of choice with circular solutions. This isn't new to Novelis. As you heard, we've already increased circularity from 30% to 63%. We've decarbonized both our production assets and our products going out the door tremendously, 27% from our baseline in fiscal 16, and this will continue to be core to us under this new vision. This Novelis 3x30 vision is very ambitious. It provides exactly what our customers are looking for in low carbon products, high recycled content in the products, and it's doing it in a very disciplined financial way, continuing our leadership and return on invested capital. There are three objectives that we strive to meet by 2030, which is the 3x30. First is to be highly circular with increasing our recycled content in our products from 63% to 75% across all of our products.

Second is to reduce the carbon footprint on our products from just over four tons per ton of aluminum rolled products going out the door to less than three tons per ton, which will be a leadership in the industry. And to continue to be a leader in return on invested capital with a strong focus on our balance sheet and our cash flows and returns to our shareholders as we go through this journey.

So let me turn a little turn to the market outlook for aluminum flat roll products and then specifically into each of our individual markets. Starting with the overall aluminum flat roll products market, you can see that aluminum flat roll products has nearly doubled in the past 15 years from just under 16 million metric tons to almost 31 million metric tons in 2024 with consistent growth year over year with just a few exceptions. The COVID period in 2020 and then a significant destocking of beverage packaging that occurred as we came out of COVID in 2023.

We also see a very robust growth going forward from 2024 to 2029, a 4% compound annual growth rate, with robust growth forecasted across all of our markets where we have strong leadership positions. And with our current capacity that you'll see, with some de-bottlenecking and with the investments that we are making, we're very well positioned to be able to take care, to take advantage of the growth we see in front of us.

Now, specifically getting into starting with beverage packaging, we are the world's largest supplier of beverage packaging sheet. And again, this will only grow quite significantly as we complete the Bay Minette investment in the second half of calendar 26. Fundamentals in the market are very strong. Demand remains strong across all of our regions. And globally, you can see a 4% compound annual growth rate from 2024 to 2030. Near term we see a strong growth coming out of the de-stocking period that we felt in 2023 and some return of promotional activity by brand owners.

Long-term trends, aluminum remains the package of choice and is increasing share versus other substrates with new product launches in both mature and growing categories such as energy drinks, ready to drink alcoholic drinks, sparkling waters, and others.

It's also growing just from consumption-driven demand in emerging economies like South America and some places in Asia as well. As you go around the globe in our regions, North America, resilient, strong demand with a very short domestic supply which has led to our investment in Bay Minette and to bring that supplied in domestically to serve our customers in Europe.

We continue to see strong demand Some supply shortages here from a Can Sheet standpoint and an opportunity to utilize our Asian assets, which are quite flexible to be able to supply not only North America for Bay Minette while we bring that up, but also to in the medium and longer term supply the European market. And in South America, our leadership position is very strong there. We can capture the demand growth that we're seeing in the shift in package mix and increase in beverage consumption. Turning to automotive, aluminum continues to gain share against other materials, driven by light weighting trends for performance, for sustainability preferences, which is driving continued growth in aluminum automotive FRP demand.

When you think about the broader automotive trends in drivers, global light vehicle production is going to be flattish over the next couple of years, a little bit of modest growth in the North American European space, but the sales mix of vehicles continues to favor larger vehicles that need more lightweight materials such as aluminum on the vehicle itself. Electric vehicles long long-term, continue to remain very positive. But I think, as we've all seen with some fluctuations in regulations, infrastructure, and incentives, maybe it will not grow at the same rate that there was some expectations.

But OEMs still need to find solutions. So they're moving into different platforms, such as hybrid vehicles, which also need aluminum to lightweight those vehicles. We've also seen Chinese brands growing tremendously, up from 18% of the global market and FY22 to 23% FY30.

And then obviously, we also are seeing some uncertainty around tariffs and some short-term noise associated with that. However, even with that picture, aluminum continues to win versus steel, because it's not just about build rates.

It's about penetration of aluminum for performance and lightweighting of these vehicles. You can see that the global aluminum growth rate for aluminum sheet in automobiles is 6% over FY25 to FY30. And when you think about it again in North America, strong demand here, again driven by aluminum adoption for light-weighting larger vehicles, such as trucks and other SUVs.

In Europe we continue to see a strong focus by OEMs on innovation and sustainability, so we've engaged with many of the OEMs there on high recycle content solutions so that they can lower their carbon emissions in their materials and also have higher recycle content is driving demand in that region. And in Asia, we are seeing the growth of the domestic Chinese OEMs, which have not adopted as much aluminum in their vehicles as some of the foreign-owned OEMs inside of China. That, combined with overcapacity in that region, has led to lower adoption rates and we have had taken some actions that Dev will talk about in a little bit.

Overall we are the leader in this space, leading global supplier with 1 million metric tons of automotive finishing capacity. And we will continue to work through our customer solution centers in working with our customers to provide them the solutions they need to drive their sustainability desires, to drive their light weighting for performance.

And aluminum does continue to penetrate versus steel. Specialties portfolio, here we take a strategic approach to this diverse specialties market. We're focusing on high-end products through more of a regional lens here. In markets, we do see some more cyclicality, but resilient underlying fundamentals support GDP plus demand growth. We do see some tailwinds associated with trade protections in these markets. As you see on the right-hand side of the screen here, some of the end markets of which we play, building and construction is our largest. right-hand side of the screen here, some of the in markets of which we play. Building and construction is our largest.

We have a leadership position in both the U.S. and Europe here. We have seen steady performance associated with remodels and repair on housing in this high interest rate environment. As interest rates start to settle, we do believe that there will be structural tailwinds here as the US housing market is structurally underserved right now. In transportation and commercial truck, we do have some short term softness here and just overall build rates, but the conversion towards aluminum will continue, especially when you start to think of last mile delivery vehicles. So we do see some growth here in the second half for upcoming fiscal year. Commercial consumer products is driven by electronics demand, growth in battery foil for electric vehicles, so strong growth in this area as well. And then food and foil packaging here is being driven by conscious consumers that are thinking about sustainability.

When you think about like aluminum coffee capsules or other container packaging solutions, they look for aluminum because they understand the circularity and the recyclability of these products. And then turning to aerospace, since the post pandemic, we've seen tremendous growth in the aerospace industry. It's been very strong. We continue to estimate a 4% compound annual growth rate from 2024 to 2030. This is driven by growing passenger air traffic, modernization of fleets, larger defense budgets that will require an estimate by Airbus of 42,000 new airplanes needed by 2043, which is equivalent of 2,100 aircrafts per year.

Also positive here is 80% of those aircrafts are estimated to be single aisle aircrafts, which use more aluminum on average. Most of this growth, 40% of this aircraft demand growth is coming in China, India, Southeast Asia, as air travel growth increases. Novelis is very well positioned, having the only Western aircraft plate mill in China to take advantage of that growth. And really the only headwind or constraint to this growth is really the complex global supply chain, instability in the supply chain, allowing for the appropriate build rates on an annual basis, some geopolitical tension and tariff uncertainty as well. Otherwise, a very strong growth in front of us. And I'm going to turn now just quickly to the business outlook. I want to touch on the significant headwind that we are feeling before I turn it over to Dev. We've seen a rapid change in the scrap markets over the last several quarters with higher scrap prices.

This was not unexpected. We did anticipate. We saw a lot of capacity built throughout China and other parts of the world. We heard from customers of what they really do want in high recycle content. We saw many of our competitors moving into this space. We've also seen, you know, recycling rates in some parts of the world, especially in the US, dropping. So we did understand the dynamics that were coming at us. we just didn't understand the speed of which it was going to come to fruition over the last couple of quarters. So we have been working on a number of actions because we think it's very unlikely that the scrap overall pricing will revert back to historical low levels.

And so we've been working on various sorting technologies to be able to get cleaner scrap through our systems on the front end, working on operational advancements, finding ways to use dirtier scrap in our system, different types of scrap, working to find post-consumer scrap sources such as end-of-life automobiles with our Guthrie investment that just came online last year, strengthening our supply chains and our commercial understanding of need to get back the closed loop pre-consumer scrap from our customers themselves.

Advocacy in recycling rates and increasing those, all of these have been things that we are working on, have been working on, and will continue to work on, but it doesn't happen overnight. And so as we see this structural shift, headwind in our margins, we are very well positioned to compete with our highly efficient processing technologies, our world-class asset footprint, the size and scale of relationships we have with our suppliers. These all benefit us. We still make money in recycling, just not at the same levels of what we were making over the last few years. And so in order to defend those margins, not only do we need to take the actions that I've talked about on the recycling metal side, but we've also are gonna go after further actions associated with operational efficiencies, portfolio optimizations, and further cost reduction initiatives, which Dev will go into some detail here in a few minutes.

I think what's really important is we believe, we know, we have the right plan in place to mitigate the impact of higher scrap prices. And that the building blocks to drive adjusted EBITDA expansion to the $600 per ton at Novelis remain in place. And Dev's going to go through that. And so I'm going to turn it over to him to talk about some of those building blocks.

CFO - Novelis (Dev Ahuja) Thank you, Steve, and good afternoon, everyone. So building up from where Steve just handed over, let's just go into talking about EBITDA expansion. Between 2016, why 2016? Because our 2 billion investments that we had made in recycling, auto and rolling started coming to fruition from that year onwards. Between 2016 and 2024, our margin expanded, I'm saying on a per ton basis, from 308 to above $500 per ton, a little over 500, until 24. We had a 66% expansion in margins, and that was on about 18% over the period, but 2% CAGR of shipment.

So basically a 7% CAGR EBITDA expansion with a 2% shipments CAGR expansion. Means that it was like if you give the benefit of some routing four times. Huge leverage. How did that happen? Number one, scale. This is a business where scale matters a lot because of the very high fixed cost component.

So the leverage that you get by expanding volumes and scale is a powerful driver of margins. Number two, pricing. What have it on pricing? The growth, particularly in the beverage packaging segment, along with the premium for what we offer in terms of services, in terms of value add, along with the premium on domestication of supply chains, so far from de-bottlenecking, later also from Bay Minette, very importantly.

But overall, pricing, particularly in beverage can, was a big driver. Not just in beverage cans, in specialties. Over the many years, including from the last term of President Trump, anti-dumping duties came in full force in US, and the case for localization of manufacturing helping to mitigate the impact of low-cost imports has helped drive pricing across the board in specialties, another example. Auto continues to grow pricing, at least in line with inflation. So pricing has been an extremely powerful lever.

The third is product mix. As, for example, auto expanded and became a bigger part of the mix. This helped growth in margins. Rationalizing the product portfolio by getting out of low-end products, which did not make strategic sense, by getting out of low-end products, which did not make strategic sense, was another enabler of margin expansion, competitive segments like low-value foils. That was just an example how we continue to enrich product mix. The next thing is operational efficiencies and cost optimization.

I will save the details around this for a later slide, but suffice to say for now that we are always in a continuous improvement mode, driving productivity, driving efficiencies, looking at footprint across every element of operating cost, whether it is labor, whether it is energy usage, whether it is asset upkeep and productive time, slash lower unplanned downtime. These are all things that drive operational efficiencies and we are always in a continuous improvement mode on these aspects. That was a big lever as well. Recycling inputs. Over the same period, 2016 to now, we have expanded recycled content by 10%. So in eight years, we expanded recycling content by 10%.

The journey will continue in the coming years. And in some of the latest slides, I will talk more. Not to forget the successful integration and driving way higher synergies from the integration of Aleris. These are all the aspects that helped our margin journey very, very significantly. And to be clear, every one of these levers will continue to play a role in the next foreseeable number of years, five years. We can clearly see that happening. So this is setting the stage for how do we, you know, credibly drive margin up, and I'll convince you, hopefully, that this will continue to happen in the coming years.

Let's go to the next slide with that. So let's talk about scale investments. As we speak, we have a capacity of 4.2 million tons. Right now, we are using about of 4.2 million tons right now. We are using about 90% of the capacity. So there is more operating leverage at no additional cost as we get towards 4.2 million. That's aspect number one to keep in mind. Second is de-bottleneckings. So let's take some examples. I'm taking past examples. There is more happening as you see in the boxes below, but I want to give you a couple of examples of how powerful it is as we de-bottleneck. In Brazil, we expanded 100 KT capacity just about less than three years ago. We did it at a cost per ton of 1,650. Keep in mind, as you very well know from published information, this is like a payback post-commissioning of two years. Let's say $850 a ton, and you expand capacity, debottling 100 KT, not rolling alone, recycling as well, which gives you more benefits, but 850 per ton and 1,650 cost per ton.

Cannot get better than that. Oswego, 65 KT expansion at 130, $2,000 a ton, cannot get better than that. Logan, very similar, kind of, 2,000 a ton. All this has been extremely efficient de-bottlenecking, which drives more scale, drives some very attractive paybacks, and there are more opportunities that will come. So this is about scale and investment. I will leave Bay Minette for another slide because there is a lot coming with Bay Minette, which is now the next slide. So before I start talking, a picture or a movie clip can say what words cannot. So let me just have you look at Bay Minette, where it is.

I hope this gave you some idea about what's happening in Bay Minette as we speak. This is history in the making. We are creating a legacy for decades to come. This is not a five, ten year thing. This is like, you should think in terms of 50, 70 years, the state of Alabama is very proud and they love to talk about the pride that they have in being able to attract this investment in Alabama.

The plant is on track to get commissioned in the second half of calendar 2026.

So what else? Second half of calendar 2026. What we have is money spent to date 1.5 billion out of the 4.1 billion. Five percent procurement packages are open, so we have advanced considerably in terms of contracting. We will stay within the leverage of around 3.5x, which is what you have heard me saying earlier. So that's consistent messaging.

There is enough to de-bottleneck the plant with the hot mill capacity that we have created to double the capacity at a cost of maybe around $1,500 a ton, give or take. With $1,000 per ton EBITDA, if you're able to double the capacity at $1,500 per ton, this is even better than South America. So we will have 600 kT capacity. Of that, we have contracted beverage packaging, which is a little over 400, call it 420, and the rest is order capacity that will keep getting contracted over time in the normal course of things. 85% engineering is complete.

Remember why the project cost came to be 4.1 versus our initial estimate of 2.7. It was because we were at a very low level of engineering and could not foresee many things that happened with detailed engineering, and we are right now at 85 percent completion of engineering. So these are some of the things that you need to know about Bay Minette. Let me go to the next slide and continue talking about some of the aspects around Bay Minette. So today, there is enough that you know, there's enough that is coming out of the US administration about on-shoring capacity.

This has been one of the best moves that we could have made well ahead of time. This is a need of the hour, and domesticating capacity to basically displace 400 kilotons of imports that happened today is something that is exactly what needs to be done as we speak today. Customers want this, they love this. Cost advantages, this is going to be a state of the art plant, 30% lower labor, very efficient availability and cost of energy as compared to some of the conventional plants. Embedding digital technologies, very high on operational efficiency. We will continue to drive more recycle inputs and content with this.

These are all the enablers and of course price never never to forget that the contracts that we have signed are at much higher prices some of which is already being captured as we speak. So it is not difficult to imagine why this will not give us an EBITDA per ton of like a thousand dollars or plus. This is really what it is about Bay Minette. I want to talk about the next part, which is driving cost initiatives. We are very clear that we need to be ready for all the market dynamics, particularly around recycling.

As you heard Steve already say, that even with the headwinds on strengthening, strengthening scrap prices, even at this stage with this, recycling margins make a lot of sense. And we will not have any need to rethink any of the strategy that we had earlier conceived. So that's something to keep in mind. But knowing that we have to defend our margins, we are ready to take 300 million of costs out of the system. 200 out of that would come from operations, 100 million will come from SGA, SG&A.

And operations include footprint efficiencies. We are just at the stage of shutting down two of our plants which are subscale or having a product mix which makes no sense for the future. Subscale plant is basically about shutting down Richmond which is a 30KT recycling, cold rolling plant, and we are able to find enough capacity by optimizing our other plant and getting more output from them, from the cold mill system. So basically, this is one plant where we see an opportunity to shut it out.

And then Fairmont, West Virginia, is another plant where we have a product mix, which is like a lot of heat exchanges, and we do not see that making sense for future. There is some part which is basically making sense from a future perspective, and again, we will be basically moving that light gauge containers into another of our facility, namely, Terre Haute mainly. So we will keep what is good, we will discard what is not good in the product mix, and thereby we will drive margins because a plant like Terre Haute can produce much more with the same cost, fixed cost structure, operating leverage. SG&A initiatives, we are thinking about really investing in more automation, less of routine transactional work inside the company, looking at span of controls becoming leaner. So a combination of technology, a combination of structure, and creating or eliminating redundancies is going to be a way to get a hundred million of SG&A out.

So that's really something which is the right thing to do and we are not going to be shy about doing the right thing. Let's talk about recycling. This is the journey I already mentioned, from 53 to 63 in 10 years, from 30% to about 63% and heading towards 75% in the next many years. We have a clear way to do it. We have shown how we do it earlier, and this will continue. So, basically, you can see that we have additional recycling capacities. Coming up, Guthrie just came up a few months ago. South Korea is like right now, just commissioned last month. Bay Minette will bring in more recycling. Latchford, UK is about 15 to 18 months away, let's put it that way. And all these are going to contribute, continue to contribute to our recycling goals and targets. And Steve already mentioned how we are taking a number of initiatives to be able to bring technology into our scrap sortation process. A lot is happening around recycling, commercially as well. So something to be very excited about as we speak.

Let's go now to just reminding you about what are we doing with capacities. So 5 billion program underway, of which most of it is executed, or it will be executed in short order in the next 12 to 15 months. And the one big one is basically Bay Minette at 4.1 billion. So all these are projects which are either already kind of done or are well underway to get done. Done projects are basically what we have in Yeongju, 20 million investment with a capacity of 50 KT. Then the other one is really the de-bottlenecking of Oswego US. Phase one is complete, phase two is underway.

So a number of examples of things that are happening as we speak. So that's about getting more scale, getting more capacity. So I want to basically again say that margin expansion is going to be a continuation from here onwards and the levers are really intact, in some cases even better. I.e., scale and volume, better pricing, continued work on product mix of the kind that I just described as part of our footprint rationalization, just one example. I did not mention that we are also sizing the China operations where we have auto finishing.

We are sizing it to right sizes, right sizes to market conditions. We will continue to drive all of that around scale, including Bay Minette. We will continue to drive all the operational efficiencies and cost optimization, I just spoke about 300 million, we will continue to drive recycling content as we just described, and all this is going to get us to the aspired point of $600 per tonne of margin, compared to somewhere a little south of $500 as we speak.

This is really what it is. We are excited and I hope I'm getting you guys also excited about it. So with that, I hand over to Satish.

Managing Director of Hindalco Industries (Mr. Satish Pai) Okay, thank you, Dev. I will now turn the talk about the Hindalco India business. The Hindalco India business has been largely an upstream business. We have been a well-known, trusted brand providing both aluminium and copper for many years. And I think that with the new brand launch that we just did a couple of days ago, we now are positioning Hindalco to also be a value-added solutions provider. We are going to be working with this tagline of engineering better futures because we'll be working, co-creating, collaboratively with our customers to provide products and solutions. So I think over the next few slides, you're going to see that we are going to remain a large upstream player, but we are increasingly both in aluminium, copper and specialty alumina, providing more and more value-added products and solutions to our customers. Now this is largely what I said at the beginning. We started in Hindalco as India was getting industrialized.

And this next phase of expansion in India is also in that same Viksit Bharat vision that we have. India's GDP is going to double by 2030. And the products in both aluminum and copper that we provide constitute 60% of the industrial GDP of India. So I think that, you know, both in aluminum and copper, the key sectors that will grow, as I said, are auto, energy, construction. There are policy tailwinds on electrification, EVs, sustainable packaging, recycling. And I think that the other critical part that we will play in this growth is that most of Hindalco's plants, you know, are in the hinterland, in fairly remote parts, and the job creation opportunity is 4x of our direct employment that we provide.

So I think that we are very proud in this this next phase we will be playing an active part in the India growth story.

I will now cover both aluminium, copper and specialty alumina in some detail. So first let me start with the upstream and talk a little bit about supply, demand, LME and trends. So the aluminium market from a supply-demand point of view remains fairly balanced. There has been steady growth of a CAGR of 3% for aluminium demand. And I think one critical plank has been the cap at 45 million smelting capacity for China, which has been remarkably consistent and still holding on to it. And I think that regardless of trade barriers and tariffs, the Hindalco business is quite well insulated from some of these things because we are largely focused primarily on the upstream side in Southeast Asia.

So I think that the question we normally get asked is, we don't export much aluminium to the US. So I think that for us in the upstream business in India, we are quite well positioned. The supply demand is very tight. The demand for aluminium continues to be strong.

Now if I go to the next slide, this is fairly interesting when you see how the aluminium LME projections have been since 2002 now. In the last previous, in the 2000-2010s, you would see that the aluminium prices could go down quite a lot. So what I wanted to present is not how high aluminum prices can go, because that tends to fluctuate quite a lot.

But what I wanted to point out is that the base price for aluminum now has moved up considerably. It has moved up because supply demand is tight, China has got a supply cap, costs to produce aluminium have escalated, and hence I think that the baseline for aluminium now is more like 2300 to 2500.

And I think this is a very important point because this is important as you look at more of the upstream investments that we are going to do. The baseline price over the next 10 years becomes fairly critical and that's why I wanted to share this macro on what the LME can be. Now what differentiates Hindalco? The aluminum consumption in India is going to double in the next 10 years. So we're going to go from 5.5 million to about 11 million. You're going to see that the split between primary and secondary, the primary demand is going to grow at slightly higher rate. We have split the downstream demand between extrusions and rolled products.

Both are going to grow at a significantly healthy CAGR. And this is where a lot of our investments are going. The sectors that are going to actively grow are building and construction, transportation, packaging, and other sectors that include industrials like solar, which is the renewable sectors, transformers, etc. Hindalco is very well placed in its integrated operations in India. We are fully integrated right from bauxite and coal mining right up to aluminium downstream and recycling.

So I have plotted for you the four smelters of India on the CRU cost curve. So as you can see we are in the first quartile and I think this is a very important part when you look at the future of our business. Bauxite we are fully integrated and I am going to show you with the coal mines, once you have bauxite and coal locked in from an energy point of view, the upstream business becomes highly margin accretive. This shows you how our energy mix will change from FY25 going forward. So as you can see today, 98% of our energy is coal-based.

We have committed to being 30% renewable by 2030 and we are well on our way to do that. But most of the coal that we buy today is linkage and spot and you normally ask me what that mix is. Now you can see that as we go into FY29 and FY33, as our captive mines start to come into play, the coal captive will increase by FY29 to about 40% and by FY33, once Meenakshi is fully ramped up, 100% of the coal will be captive, so 70% energy on the coal, 30% on renewables that we would have locked in.

So I think this mix is very important because this will drive upstream margins, being both integrated in bauxite and with our captive coal. On the aluminium downstream side, the last five years we have put in investments into a state of the art extrusion plant in Silvassa with three extrusion presses, next gen technology with the very high quality that has been commissioned already. The Aditya FRP, which is a 170 kT high-end FRP plant, the first coil came out last week and is going to commission starting from this quarter going forward. Now both these plants, I just wanted to sort of bring to you with one example of how it positions Hindalco.

So if you look at the battery enclosure on the right-hand side that we developed with one of our customers, this is a combination of extrusion and roll products. This product requires high quality, very tight tolerances, a lot of precision components and engineering that is gone in, a great example of how we have worked with a customer to come up with a product. Now this is 110 kgs per car and we have firm orders for 150,000 cars per annum.

This is just with one customer. So what we are trying to show you is how these downstream investments have positioned us to capitalize on the electric vehicle market as it expands in India. Let me give you a few more places that we are working on. So if you look at batteries and crash components, we are working on the side sills, the bumpers, cycle frames, and this we see as a growing market that's going to come in. If you look at battery aluminum foils, we are working on aluminium battery foils and our plant in Lapanga is going to come on stream by the end of this year. We have created a B2C brand Eternia that does doors, windows, aluminium kitchens that we are going to, we are slowly growing in this market as well.

And then last but not the least, we are very active in the Atmanirbhar Bharat from a defense point of view. As Mr. Birla said in his speech, we have already provided nearly 12,000 tons of high-end alloys to the defense and aerospace market. And we continue now to rapidly expand this as we get into more heavy, hard alloys products that will come into defense manufacturing.

So this is just to show you, along with the upstream, how the last five years of investments that we have put in are slowly going to start to take fruit and show up in our bottom line. We are also going to be working on circularity, just like Novelis. We are commissioning the first recycling plant with a partner in Aditya, and our plan is to get to about 200 kT of recycled metal. We are going to be having upstream low-carbon alumina, aluminum that is going to be provided. As you said, I remind you, we had said we would have 30% of renewable energy in the overall mix. So recycling, both in extrusions and FRP, is something that we are going to actively pursue going forward.

Now just to show you how these projects will fit in, I wanted to show you a little bit of the architecture for both upstream and downstream. So on the upstream side, the platform that provides us to grow is a fully integrated operation, first quartile cost curve and resource securitization both from bauxite and a coal point of view. Based on that, we are going to do the Aditya 180 kT smelter expansion.

We are going to be commissioning two of the coal mines that we have won and the 850 kT alumina refinery has already broken ground in Kansariguda. Now once we finish that, I just wanted to give you a view of the, after this stage is over, we still have capacity to expand smelting both in Mahan and Aditya. We will be further expanding our round-the-clock low-energy source. We are going to be expanding aluminum recycling in India. As well as in the refinery side, we have put up 850 KT, that's the first line, and we can do brownfield expansions like we did in Utkal in the Aditya Alumina refinery as well. So projects ongoing now that we have announced, but also a hopper of future projects I wanted to bring to your notice.

On the downstream side, we are going to get the benefits of the investments that we have already done, both Silvassa and Aditya that are coming in place. So we have also put in finishing assets in battery foil, coating lines, anodizing lines that is all being commissioned right now. We will do more expansions for other automakers on battery enclosures and also be aggressively expanding our B2C brands. So that is for aluminium. Let me now take you through the plans for copper. So copper is actually going to grow at a faster rate than aluminum, 2.5x in the next 10 years.

This is driven heavily by electrification, which you will see in transportation, new energy, new age applications like air conditioners, urbanisation that is rapidly happening, IoT data centres that are being created and also home appliances market that is growing very fast. So we see copper to be growing at a much faster rate than aluminium and in India the CAGR is going to be 10%. Now when you look at copper, I think in copper we have also got, just like in aluminum, a starting advantage of an integrated operation that goes right from smelting, refining, to the copper rod plants, to downstream that we have put in place along with the captive jetty. I think that in India we are the only smelter that has been running for the last 25 years.

And I think that you will appreciate compared to what has happened in the market that our operational excellence, our focus on sustainability is a differentiator because copper is a highly complex chemical process to run. And I think that here that focus on operations and sustainability is very critical that I think that Hindalco has. Now based on our footprint in the Dahej, we plan to do a brownfield smelter expansion. This is well positioned because we have the land to do it.

This will make us the largest smelting complex outside China. So we will go from 420 kT to 700 kT of copper cathode capacity. And of course, we will be doing this with the benchmark EHS Operational Excellence and Sustainability. We have already broken ground on the copper recycling plant in Pakhajan, which is very close to the Dahej.

It is the first of its kind in India. The initial capacity is 50 kT and this can be modularly expanded to 200 kT of copper. Besides copper, we will be recovering high value metals like gold, silver, platinum and palladium. It is going to be taking a lot of e-waste, equivalent to nearly 3 million cell phones or PCBs can be processed over here.

So it is a major step in sustainability as well. And as you know, the government in India is now putting in producer responsibility that requires all products to have a percentage of recycled products. And I think that both in copper and in aluminium, Hindalco will be well positioned. So I talked about upstream. I talked about copper recycling of e-waste. As well as in the downstream of copper, we are this month onwards going to be commercializing the copper inner grooved tubes that goes into air conditioners. 25 kT in phase 1 can be expanded to 50 kT. And the air conditioning market in India is growing at double digits and we are already more or less sold out of this capacity. After the copper inner grooved tubes, we are actively looking, we have signed a technology agreement and we will be getting into copper foil manufacturing for electric batteries.

So in copper as well, we will preserve our strength on upstream, we will be going into copper recycling, e-waste recycling, and then copper downstream as well. Specialty alumina is going to be a little bit new to you. We have not spoken a lot about this, but this is another very exciting sector for us. This sector is growing worldwide at about 4% CAGR, nearly 9 million tonnes to 13, but in India it is growing at double that rate.

The current market is about 730 kT going to about 1.5. Specialty alumina and hydrates is used in a wide variety of products like flame retardants, batteries, advanced ceramics, refractories, electronics, so the whole wide usage of specialty chemicals. We are among the top three as Mr. Birla said in his speech. We have nearly 45 applications, 120 SKUs that we are working on. So we have two plants. Belgavi has been there for a while focused on specialty alumina and hydrates. Muri used to be providing metal grade alumina and we are slowly converting this into specialty grade alumina. So our target very clearly is to go from about 400 kT to about a million tons.

As you can see, as we convert Muri, we will get to 800 and then as a mix of inorganic and organic, we will be getting very quickly to the million tons, which will really make us a world leader in specialty alumina and hydrates as well. But let me give you a little bit of a flavor of some of the products. So white fused alumina, so this is a project that we are starting in Aditya. It's used in advanced refractories and precision abrasives. So the first space is a 600 kT fused alumina plant. What you see in the middle is a precipitated hydrate plant that has already been completed and has started commissioning.

This is used in wires and cables, insulators, building and construction, so a lot of use. And then we are working on many products that you can see on the right-hand side, SMA series, low soda, high purity alumina. So we are now targeting, I mean, even in alumina we were providing at a certain value added level.

We are now going into tabular, we are going into precipitated hydrates, high purity and this gives us a big margin expansion as we get in here. So again, looking at the growth architecture for copper, we have a very solid platform of very stable, sustainable operations in the hedge. And based on that, we're going to do a smelter expansion. We already talked about the downstream expansions in copper and the e-waste.

And going forward, we will expand the recycling. As I told you, 50 kT is the start. We will go to 200 and we will be working on more value-added copper downstream products. On the specialty alumina, we have two refineries, both Muri and Belgaum, that will be focused on it. We have finished the precipitated hydrate and we are starting on white fused alumina and going forward we will be working more to get to that one million tons of specialty alumina and hydrates.

Now I announced during the branding launch 45,000 crores of projects. So I just wanted to share with this audience that very knowledgeable. Most of these projects you already know of, and I just put it out here, you know, the smelters, the refineries, the downstream plants, many of them that are finishing, just finished, and have already started. So this, all these projects add up to about 5.2 billion, that was the 45,000 crores. These are all projects that you know about and have already been announced. But what I wanted to share with you also is what that investment gives us from margins as well as volumes. So as you can see, I'll start with the upstream side.

So upstream side, we'll go to 1.5 million after the 180-KT Aditya expansion. But this will give us what you see on the next curve is the EBITDA per ton improvement over a normalized baseline of FY24. So you know our upstream margins. Once we get the coal mines to come in, which is the resource security, we will get an additional $200 per tonne down the upstream margins. On the copper side, once we do our copper recycling project, as well as the smelter expansion, we will be expanding margins by $100 per tonne.

On the aluminium downstream, as we have commissioned the projects in Aditya and extrusions going forward, we are going to see a margin expansion of $120 per tonne based on many of the new products and solutions that I talked to you about. And on the specialty alumina side, we will get an additional $50 per tonne on the EBITDA that we are already getting. So what we wanted to share is that we have projects in the pipeline that are getting commissioned and as a mix of resource security as well as value-added products in each one of aluminium, copper, upstream and downstream, there is also going to be a margin expansion.

So to summarize now the India growth story, we have a strong current business both upstream and downstream of aluminium and copper. If you look at the middle column, these are the projects that are already announced and are under execution, which is the 45,000 crores I talked about.

And then we wanted to show you a future hopper of both upstream and downstream projects that we have once we finish these 45,000 crores. So to show you that we have a plan for the next five years and we also have a hopper of projects going forward because we have smelter expansions, refinery, all these are largely brownfield, which is what makes them very attractive. And then we can do further FRP expansion in Aditya because we have hot mill capacity.

We will do extrusion expansion as we go forward. So a lot to show you that both on the upstream and downstream side, based on the strength of our platform that we have built in India, we have future after this current five-year phase of expansion as well. Now I want to take you a little bit through sustainability, culture and digital. So I think that in Hindalco we have built a very strong culture of meritocracy and diversity.

I think this is very important. We are one of the few manufacturing companies to get certified by the best workplaces. I think this is important because as you get into more downstream value-added products, along with resource security, you have to have the ability to attract and retain talent.

So I think the culture in Hindalco that we have built, along with the diversity that we have built, gives us that platform of culture to attract the talent that we will need for the expansions that we are talking about. And I think that the people culture, we hire 1,000 fresh outs every year, 35% of them women, and I think that this culture and the people strength that we are building differentiates Hindalco very much from our competitors. We're also heavily investing in digital and the latest techniques of machine learning and AI.

We started this way back in 2018 by building a platform. Most of our plans, both in Hindalco and Novelis now, are fully wired up. We get data all in real time. We started to build tracking, logistics tracking, customer tracking products in that 2021, 22 stage.

And in the last couple of years, we are focusing a lot on process digitalisation, asset optimisation, predictive maintenance and I am going to show you some active examples of that. So, a lot of time and effort has been put in on technology as well as people training for doing analytics and digital.

Let's take a couple of examples to give you a feel for that. So I have two examples here. One is on the smelting side. So you may have heard the concept of digital twins, where we mimic an ongoing operation digitally. So the green anode plant in Mahan, the digital twin, has been put in place.

And what is the impact? 24% reduction in anode rejection, a 0.3% improvement in the anode density, which is very critical, and a 38% reduction in the pitch rejection rate. So, this digital twin, and I wanted to show you concrete impact that it's doing on our operations. If you look at the power plants, we have two digital twins running in Aditya and Hirakud, which is giving us plant heat rate improvements, steam usage reductions, and APC reductions. So both examples to show you impact of our digital projects. If I come to copper, you know copper quality has been a huge focus for us and this digital project on computer vision has led to significant impact on the improvement in copper quality as well as cost savings for us. And I wanted to show you one example on predictive maintenance from Novelis Pinda in Brazil, where this digital project has actually led to a $6.5 million annual saving in reducing the unplanned downtime. So the summation of digital and AI in Hindalco and Novelis is that we are very focused that these projects have to have an impact on operational efficiency, quality, productivity. So we measure these impacts and we are trying to make sure that these digital projects actually help us bring our costs down or become more productive or improve quality to customers.

Let me talk now on sustainability. I think Hindalco is well positioned internationally on sustainability. We are working on reducing the carbon footprint, 30% renewable energy. Around the clock power project in Aditya will be starting in June. But we also are very active on zero waste to landfill, water positivity, no net loss to diversity.

So Mr. Birla mentioned some of these in his speech. But let me maybe go a little bit deeper into, let's say, the zero waste to landfill. So we talked about aluminum scrap and we talked about the copper scrap and e-waste recycling, but take a look at the two projects on either side. So all the spent pot liners from our smelters is being recycled. This is fairly unique in the smelting industry.

And if you look on the right-hand side, with the NHAI, that's a road that you see in Utkal that's been built with red mud and fly ash. So we recycle more than 100% of our fly ash and of the four refineries, 300% of the red mud is recycled. And Utkal as well now, we are well on our way to recycling the red mud. So for us, zero waste to landfill, getting value out of waste is an important part of our sustainability.

So I think in Hindalco, we look at sustainability very holistically. So even though we use coal as an energy, we still get rated as the number one aluminum company from an ESG point of view because of this whole range of sustainability initiatives that we have. And that brings us to what Mr. Birla was saying is we are in the top 1% of the S&P global sustainability companies that they track and the number one in aluminium.

And this has been going on for the last four years consecutively and which we are very proud of. Now I am going to hand over to Bharat. Today is his first day as the new CFO of Hindalco. So I will let him talk about capital allocation.

CFO - Hindalco (Bharat Goenka) Good evening, ladies and gentlemen. Starting with capital allocation, the first step is to have a strategy which clearly defines the choices we are making. And for both our Indian operations and Novelis, we have discussed in detail today a well-defined strategic imperative. So that's clearly out of the way.

The second important thing with respect to capital allocation is that both our Indian and Novelis' operations are very strong businesses. Both businesses generated close to a billion dollars of cash in the trailing 12 months. This cash generation will increase as the new projects get commercialised. So a large part of our growth capex will be funded through this cash generation. Thirdly, the net debt to EBITDA as on December 24 was at 1.33, which is much below our target levels.

This gives us enough headroom to withstand any variability in cash generation, which might come in from LME or geopolitical issues. So to summarize, I think in terms of capital allocation, first and foremost is to maintain a very strong balance sheet, and which for us means at a console net debt to EBITDA of two or less. Second is to invest on our growth projects, which is the 5 billion in Novelis and 5 billion in India, so around 10 billion in total. And this only covers the projects under execution. The 10 billion does not include the projects which are still under evaluation. As and when these projects clear the stage gate, the 10 billion amount will increase. However, this increase will be subject to meeting the targeted leverage ratios, i.e. we will increase this only if we feel comfortable about the net debt to EBITDA going forward.

Last but definitely not the least is the return to shareholders. So as we accelerate our growth journey, our endeavour will be to return 8 to 10% of our free cash flows to our shareholders. Thank you. And with that, back to you Satish.

Managing Director of Hindalco Industries (Mr. Satish Pai): So I think that to summarize before we go into Q&A, I think we are in very turbulent times. I am sure everybody wants to talk about tariffs and all that good stuff. But I wanted to bring you back to focus to say that this is the time when companies like us, we focus on what is under our control. So we have a proven track record.

We are very focused on running safe and sustainable operations. We are focused on customers and quality. We have a strong growth agenda that we define for you. And we are preparing capabilities both from a people point of view and a technology point of view for the future.

So we believe that Hindalco and Novelis are differentiated versus many of the other players in this industry. And we hope that we have described to you a strategy where both on the India side, which has got a strong balance sheet strength, we are going to maintain our upstream leadership. We will invest there. And we will now reap the benefit of the downstream investments that we have done. And I think on Novelis, very very clearly they have shown you that they are focused on getting to that $600 per tonne using operating leverage of volumes, operating efficiency and increasing the scrap content to 75%. So with that, thank you for your attention and we will now move into the Q&A part.

Moderator Thank you so much. Thank you very much. Mr. Pai, I must say that was both an enlightening and a very engaging presentation, which means that we have a lot of things to reflect on and I can in fact already sense the curiosity in the room while you were taking us through that presentation.

We also in fact have more than a hundred participants joining us virtually across Singapore, UK, US, Middle East and India. So now it's time for us to dive into the Q&A session like Mr. Pai rightly said.

First we're going to take a few questions from our audience here in-house. And then we'll move on to take questions from our online participants. So in case you are in the room and you have a question, I request you to please raise your hand. And we'll make sure that one of my team member reaches out to you with a mic. For those of us joining us virtually, simply click on the Live Interaction button. Click on the Live Interaction button, followed by Join. And once you hit Join, we will call on your name in time. That is when you will be able to unmute and also switch on your audio to ask your question, just to ensure that we can accommodate as many questions as possible within the time frame that we have. Every individual will have up to three minutes. All right, so let's kick off with the Q&A. And please raise your hand, and we'll ensure the mic reaches you.

Shareholders Yeah, good evening, everyone. Firstly, thank you for hosting this event and inviting us. My first question is on Novelis. Now, it was interesting to see that 75% recycling target. If memory serves me right, I think 10, 12 years back, we used to mention something around 80% and then we dropped. In the last few years, we've been stable at around 60 odd%. So going to 75%, I have two questions. One is how are the IRRs incrementally? I mean, is it even from a return perspective, value accretive, or is it just linked to sustainability goals and neutral from a value addition point of view?

President and CEO Of Novelis (Mr. Steve Fisher): Thanks for the question. As we said in our prepared remarks, Vision 3x30 has three objectives and I think it's important to understand the three objectives. We've heard from our customers what they want, low carbon products, high recycle content, as directly what they are requesting from us. But we have to do it, as you're pointing out, in a very disciplined manner to ensure that we can get appropriate returns for that. As we talked about, recycling, we still are making margins, not the same margins we used to. We're taking a number of actions that we think will help to bring those margins back, both in metal specifically, as well as some of the other things that Dev articulated that we've taken on as well. We'll evaluate each project to ensure that we have a appropriate financial return. What I will say is about the asset configuration we have today, we can absorb a lot more scrap in the assets we have, changing front-end processes, finding ways for our products to take on higher recycled content alloys as we work with our customers. So a lot of the move from 63 to 75 is driven through innovation with our customers in getting higher recycled content alloys of which we need to make appropriate margins on. We need little investment as it relates to new recycling centers, but more investment on front-end recycling operations itself.

Shareholders If I may just ask one more question, and that's on the long-term volume growth potential at Novelis. Now if you look at the last 10 years, if we remove Aleris, our growth has been somewhere around 1% on a CAGR basis. Now if you, I mean the market has been growing by 3-4% as what we have shared. In the next 10 years, beyond Bay Minette as well, do we have the visibility in projects to grow brownfield and maybe potentially greenfield to maybe maintain or grow beyond the market of what we are seeing at around 3, 4% in the next decade?

President and CEO Of Novelis (Mr. Steve Fisher): Yeah, we think we've got an asset configuration with open capacity today, mainly outside of the US, of which we can capture growth. We've got debottlenecking projects, as Dev highlighted in 175KT. We've got Bay Minette that we'll be commissioning in 2026. So we think we're well-positioned to capture the growth in the next five years.

We also agree that we think the growth, for the same reasons we've been seeing it grow over the past five, 10 years, what we see in the next five years will continue past that horizon. And we have a well-established ability to grow again at Bay Minette in that second phase at a very efficient capital cost of, as Dev said, $1,500 per ton expansion. So we believe we are set with ability to grow with the market. We talked about Europe is a tight market for beverage packaging. We think the growth in South America will also be tight, and so we see opportunities as we get past Bay Minette for further potential expansions in both of those markets as well.

Thank you.

Amit Dixit Hi, good evening everyone. I'm Amit Dixit from ICICI Securities. A couple of questions, again on Novelis. The first one is on ROIC. So the new projects that we have, we are putting in on various parameters. What is the threshold ROIC that you are working with? And if you could break that $600 per tonne long-term aspiration from the current slightly below 500 into the three buckets that you highlighted. I mean, just a broad range will also do. That was the first question.

CFO - Novelis (Dev Ahuja): Okay, so Amit, let me do my best to answer your question. very straight off the bat, the ROIC from Bay Minette continues to be healthily ahead of the cost of capital, both IRR/ROIC. With further efficiency opportunities that we are talking about as we speak, we continue to believe in the double-digit IRR that we have been talking about.

I know you will be right now thinking, oh what happened to scrap? Reminder that with Bay Minette, we have been always saying that we expected scrap prices to tighten. So, it's not a surprise when it comes to Bay Minette. Now, the other part of the question, $600 per ton and what takes us from, let's say, somewhere like a little south or north of 500 to 600. A meaningful part of that is Bay Minette. It becomes very difficult to technically split every lever in a clean way because in Bay Minette we have the higher price embedded as one of the drivers and even outside of Bay Minette we will get the benefit of higher pricing because our entire CAN portfolio is getting repriced. So rather than trying to thread the needle in the way you are saying, I'm just telling you that the levers that I spoke about, number one, scale. Number two, continued drive towards better pricing. Number three, operating efficiencies, footprint, cost optimization. I told you the numbers there. I leave it to you to do the calculation when we are talking about a $300 million cost takeout action. And then while we are assuming that scrap prices will stay relatively elevated. Remember that there is volume of scrap coming.

In the earlier question, there was a point that scrap recycling content has been steady. I do not agree. We have been improving recycling content by 1% every year on an average over the last many, many years. And we see no reason why that will not continue with all the things that we are doing.

So this is really what I can tell you about the $600 per ton journey. I mean, if we have expanded from 300 to 500, why would you doubt our ability to expand from 500 to 600, you know? I'm just asking you, over a similar period.

Amit Dixit No, no, I'm not doubting. I mean, it was just the clarification needed on the buckets, similar to the way we got for India operations. So I was looking for a similar range for Novelis.

CFO - Novelis (Dev Ahuja): Yeah, I've told you the buckets. You know, the buckets are kind of very, very much directionally the ones that have helped us in the last many years. So I understand you're not saying it's not possible to achieve, but the buckets are just going to be very similar.

Amit Dixit: The second one essentially is on aerospace while we highlighted the potential of aerospace and the potential is actually quite, there is a long road ahead, 20 years, that's what we see as per the airbus projections. Now are we also planning to put up a plant for aerospace ships. I know we have got a little bit of it from others, but are we going to go constellium's way, let us say, and be a meaningful player in aerospace?

President and CEO Of Novelis (Mr. Steve Fisher): So when you look at our portfolio, aerospace is 5% or less, but we are a leading player We are equivalent to arconic as it relates to market share. In the market, we're the only ones with a plate mill in Europe and one in China We do have ability to get more off both of those plate mills as the market continues to grow. We do do some sheet as well in the aerospace already. And so we think we're very well positioned to capture the growth that we're seeing coming in aerospace over the next several years as the supply chains get sorted, as some of the larger customers sort out some of the issues or OEMs sort out some of the issues that they've had. Where the growth is coming, we think we're very well positioned to take advantage.

Amit Dixit So there's no expansion on cards as far as the aerospace capacity is concerned. We will maybe ramp up the capacity that we already have.

President and CEO Of Novelis (Mr. Steve Fisher): Yeah, I mean, we're talking about, you know, a 4% compound annual growth rate where we have the ability to capture that growth rate with our current asset configuration with some minor debottlenecking but not a significant investment needed.

Amit Dixit Great. Thank you and all the best.

Shweta Dixit Hi. Good evening. Shweta Dixit, Systematix. My question is again on EBITDA margin at Novelis. Is there a near-term guidance that you would like to reinstate? Firstly, and secondly, when we look at $600 per tonne EBITDA margin accruing once Bay Minette commissions, is there an impact or benefit of premiums also that is built in this margin that we are looking at? And what is its correlation to US Midwest premiums which have significantly surged recently and whether if these premiums also normalize, can we, you know, in future expect margins to be, you know, further lower revision in the margin guidance?

CFO - Novelis (Dev Ahuja): So, Shweta, I think we should simply not venture into short-term guidance with everything that is spinning around us. The reason for that is that these things which are spinning around us will settle down, it will take a bit of time, and once we get to a bit of stability after this noise settles, we will have a better ability. I only tell you this, we guided, you're asking about near term, we guided you at the last earnings call that our Q4 is going to be in line directionally with Q2. There is nothing unsustainable in either the Q2 margins or the Q4 margins. In fact, there were headwinds. That time there are headwinds.

Now just different headwinds. Second quarter was Sierre, which is well behind us. Fourth quarter is scrap. There is nothing unsustainable as far as these margins are concerned, behind us, fourth quarter is scrap, there is nothing unsustainable as far as these margins are concerned, which is not too far from $500, if I may say that. That's number one. You said, is the benefit of premiums big then? Not exactly, I mean, we are not assuming, you know, that we'll get lucky on premiums. Right now premiums are high, the duty noise is there.

The duty noise just takes premium northwards. But we are not depending on all this factors which can be a bit of noise and taking a punt. We are not talking about that. We are talking about steady state aluminum prices. We are talking about reasonable premiums in line with steady state historical premiums. So those are not the things. We only talk in terms of fundamentals, not speculating on metal or premium and all of that to be absolutely clear. So that's about Bay Minette. Did I leave anything unanswered?

Shweta Dixit No that answers, thank you.

President and CEO Of Novelis (Mr. Steve Fisher): Maybe just to be very clear, the $600 per ton assumes normalized Midwest premium, does not assume anything of the noise that we're seeing in the marketplace today, and we provided this guidance before any of the noise that was out in the market.

Ritesh Yeah, hi. Thanks for the opportunity. This is Ritesh from Investec. Two questions for Steve and two for Mr. Pai. First for Mr. Steve, sir, can you detail what you mean by the dirty scrap market? Is there a number for dirty scrap which is available? What is it that we can process over here which gives us an advantage? That's the first question.

Second is, there's a lot of emphasis on adjusted EBITDA per tonne, specifically for Novelis, say when we give a number of $600. Is it possible to remove the word adjusted over here and link it with cash flows? That's the second question. Two questions for Mr. Pai.

Managing Director of Hindalco Industries (Mr. Satish Pai): Ok, can we just finish this part? Because we'll otherwise forget the questions.

CFO - Novelis (Dev Ahuja): So let me say this. We call it Adjusted EBITDA because factually it is adjusted EBITDA, right? And there are things that we exclude from that, a metal price lag, if you like, non-recurring, non-operational one-off. So because it's an adjusted EBITDA, we have to call it adjusted EBITDA, right? Number one. Number two, dirty scrap, how much dirty scrap is there? Let me try this. In the US, about 750 kilotons, that's like about one year's Can Sheet volumes that we sell is going into landfill. It's huge. Recycling rates are 44%. So that's all the pool of scrap that goes into landfill and does not get recycled. What we are doing is working with mrfs, which is material recycling facilities, and by deploying technology, what would otherwise go into recycling comes out of the system because that's dirty scrap and we are finding a way to recycle. How much can we get from that? We'll maximize it. We will keep working, we'll keep adding more technology, we will keep going after it. We are building collaborations.

We are working with partners. We have access to technology because we have made a small kind of joint venture, equity investment, small amount. We are doing all the things to keep taking out what would otherwise go into landfill. The number is very, very meaningful, is what I can tell you. It's a big number, potentially, that we can draw into the system. That's really what it is.

Ritesh If I have to take the second part of the first question, is it possible to link EBITDA number at Novelis to cash flow conversion?

CFO - Novelis (Dev Ahuja): Yes. Yes, I mean, that's not very difficult and we have demonstrated an ability to convert 60 to 80%. You should leave aside growth CAPEX because that is discretionary CAPEX, right? That's a choice we make on capital allocation. But otherwise we have demonstrated an ability to go 60 to 80% of EBITDA to cash flow. So that's really what it is.

Ritesh Would be great to see a target number for cash flow conversion incrementally whenever we give guidance.

CFO - Novelis (Dev Ahuja): I mean, we will always try to be at the top end of the benchmark because, I mean, we are talking about being a kind of top-end ROIC player and in order to be that, you cannot not pay attention to your cash conversion because that's fundamentally what will help us drive that superior ROIC outcome. So that's clearly where our sights are.

Ritesh Thanks, Dev. Two questions for Mr. Pai. Sir, at current LME, at current copper TCRC, for the projects announced in India, do we cover up for the cost of capital? That's the first question. And specifically, the recycling project, also the CAPEX number looks pretty high, but makes very difficult to understand the underlying economics. That's the first question.

And a few years back we used to bifurcate the cash flows for deleveraging growth CAPEX and shareholder returns. I think last two years we haven't done so. Any specific reasons? And the variable which is missing over here is inorganic growth. How do you place it in overall capital allocation framework? Thank you.

Managing Director of Hindalco Industries (Mr. Satish Pai): I don't know if that was two or five questions all rolled in. That's why I think if I forget now you'll have to remind me. So first let me take the LME, aluminium. See the aluminium LME is very volatile. Two weeks ago it was 2700, today it is 2550. That's why I try to say that when you do a project like this which is going to have a 30 year life cycle, you have to take the sort of, what is the worst case sort of LME baseline that you can work with. Let me tell you that 24-2500 range, which is what we do the economics at, we very much return the cost of capital and in fact you get pretty good margins. I have to say that getting our own coal mines, again I repeat, is a big part of that. On the copper side, actually I have to say that maybe we timed our investment very well. Because even TCRCs, they tend to go up and down quite a lot.

The next two years I think TCRCs are going to be very weak and we expect like normal that the TCRCs will come back and be north of 15 or 18 cents going forward. So by the time our projects come, we have assumed a sort of 17, 18 cents TCRC. And you have to remember that in copper the value chain is quite long. So having access to cathodes allows you to do more downstream products and the combined certainly is highly return of capital accretive. So both these upstream investments we feel very good about. On the aluminium side because of resource securitisation and on the copper side because of the full value chain that we have in copper going forward.

One part of the question, I think you said the recycling project CAPEX looks big. I'm assuming you're talking about the copper recycling. Let me tell you that there the margins are far, far higher than a traditional TCRC copper smelter is. So that recycling part, because again, besides copper, you get gold, silver, palladium, all these things, that one, the margin is really accretive.

Then you said that we have stopped, two years ago when we gave the capital allocation, we had put down a certain amount for debt reduction. I think in Novelis it's very clear we have a 4.1 billion project and hence we are going to be going through in the next two years and we have given our funding plans so there is no chance to do any debt reduction in Novelis. They will come back to the long term net to debt to EBITDA target of 2.5 is what we have told on the capital allocation side. If you come to India, we have a gross debt of about 10,000-12,000 crores left. We are net debt to EBITDA negative.

So I think that in India we are not going to work on paying down any more debt. We want to put the cash flows that we are generating into this 45,000 crore project pipeline that we outlined. And that still, we have done the math, balances out, that gives us the underlying from last 23 to now, the 8 to 10% of shareholder return. So we will commit and do that. Is there any part of your question that I did not cover?

Ritesh Inorganic comment on that.

Managing Director of Hindalco Industries (Mr. Satish Pai): So I think that we always are evaluating inorganic. It is fair to say on the aluminum side, especially for Novelis, after the last Aleris acquisition, the FRP inorganic opportunities are quite low. I think in India we will continue to look for opportunities and copper will continue to look for opportunities. But those are, you know, when they come they have to stand on their merits and we look at them.

Aditya I'm Aditya from Axis security. I have a question with respect to the kind of higher contracted prices we have secured for Bay Minette. So is there any downside risk for that? Is it exposed to aluminium LME or is it more of a structural play because of the value-added products which will be producing from Bay Minette, or physical premium which will benefit the higher contracted prices? So I want to look at any downside risk to the higher contracted prices coming out of Bay Minette.

President and CEO Of Novelis (Mr. Steve Fisher): Yeah, so as we announced Bay Minette, we announced it with secure contracts that go through 2030 for 2 thirds of the plant. Those contracts, as Dev said earlier, come at much higher premium. That is on-shoring of the capacity, right? That was 400 to 500 kT of imported canned sheet coming into the North America marketplace of which we are displacing. Then you saw the graph that we talk about, the 4% growth in beverage packaging, a lot of that driven in the North America marketplace that ultimately we feel very comfortable that both our mill and ADI's steel dynamics mill are needed in the longer term, and we'll be looking for potentially phase two of Bay Minette. We continue to see the growth in automotive and feel very comfortable in contracting there. So we do not see a scenario of downside risk as it relates to conversion premiums in the North

America marketplace with the dynamics that we're seeing both in the near term and medium and long term.

CFO - Novelis (Dev Ahuja): Yeah. And one more thing that you should keep in mind is that you're aware that from December 1 last year, VAT subsidy in China went away, and one of the sources of meaningful imports of Can Sheet was China. With a VAT subsidy going away, which was like 13%, the hurdle on risk on pricing actually goes to a very, very insignificant level to almost the opposite. It becomes imperative for folks to buy here, just given that we are now a lot more competitive considering historically China was able to compete at lower prices. So we feel very good for that reason as well.

Aditya Yeah, thanks. My second question is on this copper smelter. So you have just described that you expect the TCRCs to recover in some future years. So what gives us that confidence that TCRC will turn around? And if you can throw some light where we will be sourcing the copper concentrate from. This is in the context that most of the global miners are projecting that the copper grades will be falling and new mines are not coming online. In that context, this question is.

Managing Director of Hindalco Industries (Mr. Satish Pai): So it is interesting, some of the biggest miners have been in active discussion with us and we are actually talking about tying up concentrate supplies for our new smelter. So we are not worried because there is new capacity coming in. You are absolutely right, whether it is aluminium or copper, the quality of concentrate everywhere is going down. So this new smelter is being designed to handle more lower grade copper concentrate.

Now why do I think TCRCs will come back? This is where you just have to go back and look at 10, 15, 20 years of history. Normally copper prices will go very high, which is right now at 10. That incentivizes more miners to come into the market at these prices and then that concentrate comes in and then TCRC is returned.

Now the other thing that is also happening, which is going to happen in the next two years, is a lot of the marginal copper smelters are going to go out of business. So if they don't have a very diversified supply chain like we have, if you are just selling copper cathodes, you are going to find it very difficult in the next two years. So in commodity markets, this supply chain phenomena plays out and we are very convinced that we will get the concentrate because we are talking to many of the big players. They want to diversify away from China and they are tying up with us. And we believe that the copper demand in India is going to be very strong and on the downstream side the margin expansion on the value addition is very high.

So we have done an assumption of between 17-18 cents, which if you go historically, that is on the lower side. It is just like the aluminium LME where we did the math at 24, 2500. So we are quite comfortable that over these projects 10, 15, 20 year margins this will be giving us good return.

Ritesh Thank you.

Ashish Good Evening Ashish from Nuvama. A couple of questions on Novelis again. Once you mentioned that $600 per ten EBITDA in the long term, I'm assuming that you're talking about FY29 or 30 when we can reach to the optimum level of Bay Minette, is it right?

CFO - Novelis (Dev Ahuja): Yes.

Ashish Okay. So in that context, because you have mentioned that in our second phase we can put up or double the capacity at one-fourth of the cost. So don't you think that once we complete and at the same time we are seeing that there will be 4% demand which we are seeing for next 10 years. So is it safe to assume that by FY27, the moment we complete our first phase of expansion, we can very well start the second phase, which can be completed in two or three years?

CFO - Novelis (Dev Ahuja): We don't want to get too far ahead of ourselves. Let's just take it a step at a time. All that we need to, oops, that's okay. All that we need to know is that we have the potential, the next phase will get done much more quickly. Remember, here we started with a rough, uneven piece of rocky land. That's not what we will have to do the next time when we add the next phase. So all that we should be happy with is that we have the readiness and we will not hesitate to click the start button when we see the time coming in. So rather than trying to double, triple guess exactly when, let's just say that it will come. It will come in good time and we will do it when we think the time is right.

President and CEO Of Novelis (Mr. Steve Fisher): And maybe I could just add, when we talk about doubling the capacity, the majority of that investment is just at the second cold mill and taking advantage of the hot mill. So the length of time to put in the second phase is nowhere close to the first phase. So we can time that much closer to where the market is.

Ashish Normally, when we do the brownfield expansion, how many years it will take for us to do that? Is it two years or three years?

President and CEO Of Novelis (Mr. Steve Fisher): Closer to two years.

Ashish Two years. Okay. Thanks. And secondly, when we are talking about $600, if we do the rough maths, it seems that around a minute is 10 to 12% of our whole volume and at $1,000, so remaining comes to be around $5.40, $5.50 per tonne, where the current one we are around $4.95.

So even after assuming your scrap spread normalising and the kind of benefit which we are going to take going forward, which we have accumulated some kind of benefit. We are seeing that we can be 540, $550 per ton for the existing operation besides Bay Minette. Is that right?

CFO - Novelis (Dev Ahuja): I cannot fault your math. I mean, anybody who does the math will kind of come to a similar number. So I don't fault your math. In real life, things kind of work around the math, not exactly on the math, and there are overlapping factors, but I think you're heading in the right direction.

Ashish Thank you so much and all the best.

Gopal Hi, sir. This is Gopal from SBI Life. My question is, two quarters back, we withdrawn the guidance on Novelis because of uncertainty around scrap supplies and all. Is it right to assume we have better handle now on scrap supplies and that the guidance which we are not reinstating is largely on account of tariffs uncertainty?

CFO - Novelis (Dev Ahuja): I mean, there are a couple of factors here. Tariffs is one of them. We think that we haven't seen everything, you know, properly kind of playing out on the macro factors. There is a bit of timing we want to watch on the interest rate reductions, you know, and the Fed is not in too much of a hurry, and that is linked to the bounce back of the auto market and also the specialty markets. We are working on a number of cost initiatives, as we said, they will play out. So there are things which we kind of want to better figure out. In this choppy environment, we do not want to necessarily, you know, sort of rush out into saying anything that is too premature. And that's the reason why we want to focus on doing all the controllable things, doing the right things and when we feel comfortable we'll come back.

Gopal Second question is on India smelter expansion. I think we have guided this will be on the green energy. So when you consider the ROIC, I think you have reflected that you consider the coal cost benefit because of mines and all. So if it is on the isolation, we consider on the green energy, what kind of ROIC one should expect?

Managing Director of Hindalco Industries (Mr. Satish Pai): Actually, you know, the long term return on renewable energy pricing is as attractive as the coal. The problem is getting that much round the clock renewable energy. is as attractive as the coal. The problem is getting that much round-the-clock renewable energy. So the amount that we have got and the PPA we have signed for the next 20 years is highly attractive. So I don't think we need to worry about, in our case, whether the price of renewable is much higher than coal, it's not. If we go into more smelter expansions, our challenge is going to be to find more round the clock renewable power. So the economics that we have done in Aditya, because we have 100 and we'll be getting probably another 100 of RTC coming into Ad Aditya along with our own coal. So when we look at the balanced price of power, the guidance on the margin improvement we have given is doing that math.

Gopal Thank you Sir.

Bhaven Good Evening Sir this is Bhaven Chheda from Enam Holdings. Thanks for a very good presentation. Regarding the CAPEX slide 5 billion each at Novelis and India from now to 28, how much has been actually spent at both the places till March 25? And what is the pending amount to be spent at each location?

CFO - Novelis (Dev Ahuja): So on your end, your, just take that. So let me focus on Bay Minette. As we speak, we have spent 1.5 billion on Bay Minette. There is residual CAPEX, smaller CAPEX on the list of all the projects that was listed in the five billion on a relative scale. None of them individually is to material. Much of it is behind us because we've already commissioned projects like the recycling and UAL, some more cash to go out. Similarly, Yeongju Korea, most of it is already out. So you will see that what remains is not very material outside of Bay Minette. To help you just get grounded, if this seems too broad to you, think about this five billion CAPEX plus about a billion dollars of maintenance CAPEX, billion and change if you want, and think about that as averaging two billion in three years. You know, this is how I typically make it easy for everybody, you know, in one year it will be 1.7, 1.8, in another year it will be 2.3. But think about three years together, compacted together. It's a six billion CAPEX. Give or take a little bit here or there. Think about it that way.

Bhaven You said one and a half billion is already spent, so the remaining amount is three and a half billion, right?

CFO - Novelis (Dev Ahuja): And add maintenance CAPEX of 1 billion. I'm talking about all the CAPEX.

President and CEO Of Novelis (Mr. Steve Fisher): The remaining is not 3.5 billion. Majority of the rest of the spend on the page for Novelis has been spent besides Bay Minette. Bay Minette is 4.1 billion, of which we spent 1.5, so we're talking about 2.6%.

Managing Director of Hindalco Industries (Mr. Satish Pai): So I think on the India side, if you take the 45,000 crores, we have spent about maybe 7,000, 8,000 crores so far. So the large part of the spread is going to come in the next three years. And I think that for us, the strength of the balance sheet, we are carrying about 14,000, 15,000 crores in treasury. So we are quite comfortable that we will be doing that in the next coming three years.

Bhaven One more question on the Novelis Bay Minette side. I believe that you still have open capacity of 0.2 million which is largely auto grade. So you are kept it open by choice or by market conditions?

CFO - Novelis (Dev Ahuja): Yes, so this capacity cannot be timed perfectly. We have two parts to the open capacity. One is auto, the other is scan capacity in South America. Now, you need to keep that open capacity, for example, in South America, because you need to be ready for market growth and you need to be a bit ready ahead of time because if the government and the industry there, our customers don't see that we have enough capacity, it can create a lot of concern. So sometimes, not sometimes, but always, you have to make sure that you give confidence that you will be able to meet market demand.

On the auto side, you know what's happening. I mean, Europe economy is muted, interest rates are high. Directionally in the US also interest rates are high and so auto isn't like thriving as we speak. So these are all the factors which are kind of right now leading to some open capacity. Having some open capacity. Having some open capacity is always good, I would broadly say. You cannot be so much on the edge. Customers will not give contracts if they don't see ability to produce.

Bhaven Thanks.

Moderator All right, we will now be taking questions from our participants online. I'd like to request all our virtual participants to kindly enter your question in the chat box.

So the first question comes anonymous. Q. What would be a good estimate cost per tonne for Mahan 360KT aluminium round field expansion if were to happen?

Managing Director of Hindalco Industries (Mr. Satish Pai): The cost per tonne for Mahan will be no different from what we are doing the Aditya expansion. And I think the Aditya expansion per tonne is, what's the capex we have given there? It will be the similar capex as the 180 kT of Aditya that is there on the slides. I think it is about 7000 crores.

Moderator Thank you. We move to the next question from **Mr. Siddharth Kattiker**. How should we think about annual CAPEX for both Novelis and India every year for say between FY26 to 29?

CFO - Novelis (Dev Ahuja): 26 to 29? Well, until 27 we will continue to complete Bay Minette. So like until 27, I just answered in the earlier question that take kind of about a two billion kind of a thing. Now post that, CapEx will ram down and we'll be in a positive free cash flow mode. We will get over the cycle of negative free cash flow and we will enter into a de-levering cycle at that time. I'm not ready to talk about a CapEx number that far out. We will see how the conditions are at that time, what do we need to do, depending on market conditions.

We will come back closer to time. That's where I will leave it for now. But we will be in a positive free cash flow cycle. We will be in a de-levering cycle post-payment. I want you to know that.

Managing Director of Hindalco Industries (Mr. Satish Pai): So on the India side, next year's CAPEX is going to be around 8,000 crores. And the year after is going to be slightly a peak where we will probably get to about 15,000-16,000 crores as many of these upstream spends come in at the time.

Moderator Thank you. We move to the next question. Novelis, all scrap you process is procured locally? And the second part is, any impact of the ongoing tariffs, if you have?

President and CEO Of Novelis (Mr. Steve Fisher): So on the scrap side, the majority of our scrap is sourced locally to our regional scrap processing facilities, recycling facilities. But with our global network, we do have the ability to move scrap around the world and do it from time to time. But the efficiency of procuring on a local basis is by far and large the majority of ours. We do have scrap that we do import. There is some exposure to some of the tariffs that have been put on or are coming on on April 2nd. But again, we see this as short-term noise. We're looking at the longer-term strategic footprint that we've created and feel very comfortable about the actions we're taking in order to source scrap needed and generate the margins for the recycling business.

Moderator Thank you, Steve. We can now move on to audience again. If you have any questions, you can raise your hands.

Shareholder So my first question is again on Novelis. So the $300 million cost savings that we are targeting, that's purely on the existing facilities, I guess. And is this like an initial estimate kind of thing or this is like very high visibility, firstly? And secondly, given we are talking of maybe revisiting some of the existing facilities, will there be a one-time cost attached to kind of recovering these savings?

CFO - Novelis (Dev Ahuja): Yes. So, number one, we are being very deliberate, very kind of specific in terms of identifying, you know, the measures. It's experimental is not a fair term. I mean, this is very, very real, targeted. When we close a plant, we close a plant. When we take headcount or other things out, we do that.

Is it about existing facilities? Yes, it's on the existing cost base, not some futuristic thing. That could be further opportunity, i.e. as we learn from the existing network, we expect Bay Minette to throw up further opportunities as we learn, we keep learning. So that's really the answer.

Now, the cost of restructuring. There'll always be some cost, but this restructuring cost has a very quick payback. I mean, in many cases, like for the plants that we are talking about, the two or three examples, if you like to include China. I mean, these are all like one year-ish payback in most cases on a cash basis. There will be some accelerated depreciation of assets, you know, when you shut plants down, but that is non-cash. So typically, you know, typically these are very, very quick payback decisions.

Shareholder My second question, clarification on the India EBITDA improvement that we spoke about. So Mr. Pai, one, in the past we had this stance that any new smelter expansion in India will only happen when we have 100% green power. Going by the power breakup you spoke about, we clearly seem to be deviating from that path.

Managing Director of Hindalco Industries (Mr. Satish Pai): The world is deviating from that path. So I think that just to be fair, I think that our energy renewable that we will get to 30%, we still stick with that. And I think that if you look at the Aditya 180 KT, that will come when we look at the Aditya mix, that will come with the renewable power. So I have not gone back on that.

But I think going forward some of the future expansions, we will have to take a call and see whether the RTC power is available or not. If it is not available and the Indian market demand is there and we have the coal, we will certainly do a smelter expansion.

Shareholder Sir on the EBITDA smelter expansion numbers that we highlited those are higher EBITDA for the incremental capacity or that is for the total capacity?

Managing Director of Hindalco Industries (Mr. Satish Pai): Total capacity

Shareholder Got it Sir. Thank you.

Moderator Do we have any more questions? Please raise your hand**.** All right I think with that it is the rap on the Q&A session Mr. Pai, I am going to invite you to kindly give your closing remarks.

Managing Director of Hindalco Industries (Mr. Satish Pai): So I think that we just wanted to summaries and say that, you know, hope we have given you a flavour that we are quite focused on our operations and the things that we have a control on. And I think that taking a look at the number of questions we got, I just wanted to end to say that, you know, for Novelis, a very clear focus on getting to the $600 per tonne based on operating leverage, efficiencies and recycled inputs, and we have a very detailed plan to get to that. I think on the India side, we have a very strong balance sheet and we have a market that is growing rapidly. And I think that our last few years of investing in downstream capacity for doing higher engineered products is going to help us.

But at the same time, we want to reiterate that we will be still dominant in the upstream and hence the next phase of CAPEX we are putting in is to make sure that we keep our presence on the upstream as well.

So with that, I thank you for your attention and hope you can join us in the evening and we have the whole Hindalco management team here as well so you are welcome to talk to them. They can talk about everything from products to efficiencies but don't ask them for any financial numbers.

Thank you.

Moderator Thank you so much Mr. Pai. Also a heartfelt thank you to our leadership team here for sharing your vision and your insights to all of our valued investors and stakeholders. Thank you so much for your time, for your attention and engagement and also for your unwavering trust in Hindalco. Your confidence in our journey fuels our commitment to excellence and growth. We truly, truly appreciate your presence here today. I'm Zeena Fernandez signing off. Please have a wonderful evening ahead and join us for dinner and cocktails.