"Hindalco Investor Day 2022"

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Satish Pai: Hello, everyone and welcome to Hindalco and Novelis' Investor Day 2022. To give the opening remarks, I would like to welcome our Chairman, Mr. Kumar Mangalam Birla. Mr. Birla, over to you.

Kumar Mangalam Birla: Thanks, Satish. Good evening and good morning to all of the investors who joined this call. On behalf of the Aditya Birla Group, I welcome you to Investor Day of Hindalco. In our endeavour to engage more deeply with all of you, our investor community, last year, we started the cadence of having an annual investor day. This was planned as a comprehensive response to all of your inputs, questions and feedback, the maiden edition of the investor day last year met with a very strong response and I hope that this will be a very engaging session today as well.

We are connecting at a time of heightened global volatility and over the last 12 months, the macroeconomic backdrop has changed considerably. In fact, within the span of this quarter itself, we have seen significant shifts to the global economic outlook. Inflationary pressures, as you know, and a tightening rate cycle, amidst geopolitical uncertainty have dampened the global market sentiment. India, on the other hand, however, is relatively well poised on the back of strong domestic demand, driven by the twin engines of growth -- conventional and new economy. I believe that in this context, Hindalco has delivered an exceptional financial performance enabled by robust volumes, better operational efficiencies, and strategic product mix and stronger growth in our downstream business. This coupled with favorable macros has led to significant stakeholder value creation. As you perhaps know, Hindalco is the best performing NIFTY stock in the last 12 months. In fact, the market cap of Hindalco has almost doubled since we met last year.

Our downstream business powered by Novelis has a proven track record of investing, building and utilizing new capacity to drive strong return on investments. Novelis EBITDA crossed $2 billion in the trailing 12 months ending December 2021. It's EBITDA per ton has reached $500 plus levels currently from levels of $300 in FY'14. The synergies from the Aleris acquisition have far exceeded our initial expectations. The integration is well on track to deliver over $220 million in total synergies as against the initial estimate of $150 million. Two years after this acquisition, Novelis has deleveraged rapidly and brought down the net debt to EBITDA from 3.7 times in September 2020 to 2.3 times in the December quarter of this fiscal year.

Our India Aluminum and Copper businesses have also demonstrated record performance. The India business recorded its highest ever EBITDA in the first nine months of this fiscal year. We also successfully completed the inorganic expansions in the aluminum and copper businesses with the acquisition of Hydro's SAPA extrusions and Polycab's Ryker copper rods facility both in India. The acquisition of the Ryker copper rods facility has catapulted the company to be amongst the top three copper rod manufacturers globally outside of China.

Utkal alumina accelerated its organic 500,000 tons expansion project by ramping up to its full capacity, much ahead of scheduled time. The India business also deleveraged sharply and net debt to EBITDA at 3.4 times in September 2020 to 0.7 times in the December quarter of this fiscal year.

This strong performance by Hindalco has also been bolstered by the company's sharp focus on ESG. At the Aditya Birla group, we believe that ESG credentials are not just a marker of good corporate citizenship, but in fact a driver for sustainable growth. Hindalco has been rated as the most sustainable aluminum company in the world for the second year in a row by the Dow Jones Sustainability Index ranking and is now a part of the DJSI World Index. Novelis of course is the largest aluminum recycler in the world. It recycles 74 billion cans annually, enabling the recycle can to be back on the shelves in just 60 days. Both India business and Novelis have committed to becoming net carbon neutral by 2050 and have also laid out an interim decarbonisation roadmap. I believe that Hindalco is in a sweet spot. The global macroeconomic climate, combined with the inherent supply/demand mismatch in commodities signal that a strong metal cycle is here to stay. Additionally, the transition to clean energy and pressures on sustainability will increase the demand for aluminum and copper globally. These forces provide a tailwind for both of our upstream and downstream businesses. A few months ago, I wrote about an upcoming rally of investments pending in India, a sort of CAPEX 'Mahotsav' or a CAPEX 'Fest'. The sound financial health and balance sheet strength of Hindalco positions it well to embark on a new wave of investments and growth.

I will hand over to Satish, Steve, Dev, and Praveen to lay out the roadmap for this ongoing growth trajectory. I would like to reaffirm the commitment of the Group to creating high-quality, long-term stakeholder value.

I look forward to an engaging discussion between all of you and Hindalco team, and even more meaningful outcomes. Thank you.

Satish Pai: Thank you, Mr. Birla. We will now take you through the investor day presentation. But before I do that, I would like to all of you to go through the Safe Harbor statement that is there in the presentation and of course physical copies of what we have put on our website. We're going to talk a little bit and give you an overview of Hindalco and Novelis, our growth strategy, update you on some very specific things that we're doing from a sustainability point of view, talk about shareholder returns that we have achieved so far, our broad capital allocation framework going forward, and then we summarize and open it up for questions and answers.

Let me first start by giving you an overview of Hindalco. Hindalco, along with Novelis is probably one of the world's largest non-ferrous companies. Novelis of course as you know is the world's largest rolling products and recycling company in the world. Hindalco in India is the largest fully integrated aluminum player going from alumina right up to downstream products. Utkal alumina is the lowest cost producer of alumina in the world. And we of course in Dahej have one of the largest custom smelters in the world. We operate across 10 countries with 40,000 employees worldwide.

I now show you the slide that we had showed last year as well. And if you take the four points that we talked about last year, I'm happy to say that we have achieved our net debt to EBITDA target much ahead of time. As Mr. Birla said, we are now at 1.62 times on the consolidated against a target of 2.5 times that we had given you before. Now that the deleveraging has been accelerated, then on the basis of a strong balance sheet and cash flows, we are now strongly focused on expanding and growing the business. So, this presentation will heavily focus on that growth pipeline that you see both for Hindalco and Novelis.

ESG as Mr. Birla also said is extremely important for us. We think it's going to be a license to operate. And we have taken some very ambitious commitments. But we will talk about specific projects and initiatives that we are doing from an ESG point of view.

And lastly, we will talk about shareholder value enhancements based on this return-based allocation to growth CAPEX, net debt reduction and shareholder returns.

So, with that, I'm going to hand it over to Steve to talk about Novelis. Over to you, Steve.

Steve Fisher: Thanks, Satish. Let me spend a few minutes just talking about the overall global FRP market and the growth we see ahead and specifically, how that translates into the business segments for Novelis. So, as Satish said, and I'm sure many of you know, we are the world's largest aluminum flat rolled products producer. We're also the world's largest recycler of aluminum. We do this through 33 operating locations around the world, providing a very unique footprint, take advantage of our global scale, but also to meet local and regional customer needs. On a trailing 12-months basis, we've shipped almost 3.9 million tons to high end product markets such as beverage, packaging, automotive, aerospace, and high-end specialties. Our vision is to lead the aluminum industry as the partner of choice for innovative solutions. And we think we're in an absolute right place to capture the growth we see in front of us.

Talking about the growth, the overall aluminum FRP industry is a very diverse and large industry. The overall growth over the last 15 years is upwards of 80%. In 2021, there was a market of 30 million tons, which was an 11% growth over 2020, which was impacted by COVID. But as we look at the forecast going forward, we see another 6% growth in 2022 versus '21, bringing the market to 31.6 mt and we see a 4% compounded annual growth rate over the next five years to 2026. This robust growth forecast is right in the heart of the markets that we serve at Novelis, can, automotive, high end specialties and aerospace.

Let me go a little bit deeper into each one of our segments. We will start here with beverage can market, which is our largest market. We are the global leader and aluminum beverage can sheets. And we're the largest buyer and recycler of used beverage cans. Beverage can sheets makes it 58% of our portfolio which brings us to approximately 40% global market share when you exclude China. And it really allows us to leverage our first mover advantage as relates to our recycling capabilities where we can produce can sheet with recycle content to the north of 75%.

Our recycling and sustainability leadership, our close partnering with our customers, our global footprint that allows us to maximize a unique global network and our innovative collaboration really makes Novelis the platform that can take advantage of this growing market.

Let's talk about the growth in the beverage packaging market. We see increase of 4% compounded annual growth rate through 2028, mainly driven by sustainability trends. Now, this comes in convergent from other substrates, such as glass, steel and PET. But it's also coming with new innovative different drinks, energy drinks, hard seltzers, mixed cocktails, teas, that are increasingly being packaged in aluminium.

And where we see the largest increase in gap between the demand and supply is in North America. In North America, our customers, can makers have invested $4.1 billion since 2018 for new Greenfield and Brownfield expansions, bringing 38 billion new cans into the marketplace, which requires 680 kt of additional can sheets. You can see from the chart in the upper right here that the market is already short of capacity by 300 kt. That capacity has been filled by imports right now. But over time that is just not sustainable, as you see the gap continue to grow north of 500 kt.

So, when you start to think about the geopolitical risk of supply chain disruptions, the long lead times, quality issues and the high carbon footprint associated with imports, our customers, can makers will absolutely prefer to have a regional supply source which Novelis has unique position around the world allows us to take advantage of that and we'll talk about some of the potential growth projects when Dev speaks in a few minutes.

Moving on to our body sheets, in the near term, automotive builds have been impacted by COVID and semiconductor shortages. But neither of these are systemic to the future automobile demand production for the aluminum body sheet that's required in that production. You can see in the graph in the upper right we are expecting an 11% compounded annual growth rate in 2028 for aluminum automotive body sheet, and has been driven by increased automotive production as well as electrification which requires more aluminum. In the bottom left, you can see the light vehicle production estimates. And you can see that in 2022, that the production levels are projected to exceed the pre-COVID levels and then continue to grow with pent up demand associated with replacing vehicles.

In addition, you can see in the light blue line because of higher emissions requirements, and various incentives for electric vehicles, the growth in electrification inside the vehicles as a percentage versus the traditional combustion engine. And what you can see on the right is that when vehicles electrified when you look at like a battery electric vehicle itself, it will take 75 pounds more aluminum in that vehicle in order to get the performance they're looking for. So, again, both of these trends are very, very powerful towards the growth of aluminium automotive body sheet.

I'm moving to the specific markets, which is a very diverse market we stay focused on the high end that allows us to have flexibility in our capacity for foil optimization. And with the sustainability trends that we are seeing, we are seeing favorable pricing here. The favorable pricing combined with growth from 2020 to 2025 and 4% CAGR continues to benefit in markets that we're in. Building and construction both in Europe and North America is quite significant. Pent up demand for single family homes, and remodel and renovation projects is driven a lot of demand. In a thick gauge, the transportation and commercial truck area is benefiting from the same trends that we're seeing in light vehicles from aluminum penetration and then a strong demand for electronics whether it be TVs, tablets, phones, battery components driving further market opportunities. In the light gauge container and for packaging will be driven by overall an GDP and then automotive fin stock will also benefit from the rising production levels in automobiles.

And finally, taking a look at the aircraft plate market and sheet market, Novelis has been able to get into this high end market with the acquisition of Aleris. Two years ago, overall, these are very high margin products. But when you look at the overall market, it was roughly even pre-COVID less than 400 kt market. So, even when we get back in Novelis of pre-COVID levels, it was less than 5% of our overall portfolio. Still, as we've benefited from the commercial plate business with commercial engineering solutions over the past couple of years, we will be able to replace some of that commercial plate with this high margin aircraft plate in the near future with a strong order book where we think we'll get back to recovery pre-COVID levels by the end of this fiscal year. So, strong order book here, recovered by the end of the year. And the other trend is that we're seeing aircraft builds really move towards China and India. And Novelis is the only western company with a plate facility already qualified inside of China. And we think that that provides a really differentiated capability for Novelis to serve local customers.

With that, I'm going to turn it over to Dev to talk a little bit about what this translates into from a growth standpoint.

Devinder Ahuja: Thank you, Steve. So, let's talk about our investment track record and our blueprint for future investments. Novelis has a proven track record of building new capacity to drive strong return on investments. Nearly a decade ago, Novelis a multi-year strategy to transform Novelis as the world's largest premium FRP supplier with an aggressive sustainability agenda, investing over $2 billion between fiscal year 2011 and 2016 to expand rolling and recycling capacity, and significantly expand in automotive finishing sheet production. By doing so, Novelis has positioned itself as the undisputed global industry leader in flat roll products and recycling. As a result by fiscal 2020, we nearly doubled adjusted EBITDA with tremendous improvement in EBITDA per ton from just below $300 to $450 grew and diversified our shipment portfolio, and increased our overall recycling content to 59%.

In fiscal 2019, we launched our second transformation investment phase through a mix of both organic and inorganic investments to further diversify and grow the business.

On the organic side, we recently completed three projects aimed at adding automotive finishing capacity in the US and China, and rolling, recycling and casting capacity in Brazil. All three projects are complete and now in production.

We also closed on the $2.8 billion acquisition of global aluminum flat roll producer, Aleris in 2020, providing us a more diversified product portfolio, including entry into high value aerospace, and a larger high recycle content, footprint in the building and construction markets. This acquisition also provides a strong financial profile with significant value capture over $220 million both from a cost synergy standpoint as well as by fully integrating our automotive business in China and providing additional capacity in Asia.

Novelis has deleveraged rapidly post the Aleris acquisition and faces an attractive opportunity to expand capacity to serve growing demand for sustainable aluminum products.

We have identified approximately $4.5 billion of potential investment opportunities between fiscal 2023 and 2027 spanning regions and end markets.

Starting with North America, our investment program is targeted to adding much needed rolling and recycling capacity due to very strong market conditions. Projects include the previously announced Oswego hot mill debottlenecking and automotive process upgrades project, completing the Greensboro recycling expansion and launching a state-of-the-art recycling center in Guthrie.

We are also in an advanced planning stage for a fully integrated Greenfield mill in the US. This will be a highly automated, highly efficient rolling and recycling mill, with an estimated initial capacity of 600 kilo tons, focused on supplying beverage can sheet, but also some production of automotive and flexibility for specialties. We estimate a capital investment of approximately $2.5 billion and this will take about three years to complete after announcement.

In Asia as part of the Aleris acquisition business case, we will be adding a new cold mill and robust automotive recycling to fully integrate our automotive business in China.

In last month, we announced a new recycling and casting center at our joint venture, Ulsan aluminum plant in South Korea.

We also have under appraisal some Brownfield debottlenecking in Korea and in Europe, some rolling and recycling expansions in Germany as well.

Lastly, in South America, in addition to some debottlenecking, we are in early stages evaluating another rolling and recycling expansion in Brazil to meet growing demand for the Beverage Can sheet. More information on these projects under appraisal will be announced as plans are finalized, but it is anticipated within the next 12 to 18 months.

There is a very compelling business case to invest in highly efficient Greenfield automotive facility, including recycling in the United States. First is the real step change in global Can market growth driven by macro trends and increasing consumer demand for sustainable packaging and validated by more than $4 billion investments in the recent times by Can makers in North America.

Importantly, we are in advanced discussions with customers with a willingness to commit volume, price and terms that support this investment. Investing allows us to see the first mover advantage and support customer growth ambitions in North America.

Novelis will leverage its successful track record in recycling quality and innovation to add capacity and maintain its market its leadership. And while this Mill would be primarily producing Can sheets, it would also produce some Automotive coils for finishing at our Guthrie or Oswego automotive plants, significantly contributing to the investment rationale.

Novelis is also investing in new recycling capacity to promote a low carbon circular economy and reduce dependence on third-party shipping suppliers and lower costs.

Earlier this year, we announced plans to construct two new recycling and casting centers, one in the US and one in South Korea. The $365 million investment in Guthrie will add a new state-of-the-art recycling and casting center focused on recycling automotive scrap and decreased carbon emissions by an expected 1 million tons annually. The $50 million recycling center investment at our joint venture Ulsan Aluminum in South Korea, will be 100% funded by Novelis and will add approximately 100 kilo tons of new recycling and casting capacity, producing carbon emissions by 420,000 tons annually.

With phase two projects now in production and significant investment opportunities over the next five years, we have a roadmap towards significant capacity expansion both on the rolling and recycling side. When we met with you one year ago, we discussed a plan to increase capacity from 3.9 million tons to 4.5 million tons after investing in Brazil and China and to efficiency and debottlenecking projects. We now see opportunities to add another 1.3 million tons of additional rolling capacity over the long-term through the new US integrated mill and other projects under appraisal. We also have several new recycling investment opportunities to bring recycling capacity to 3.9 million tonnes. So, with this, I hand it over to Praveen now.

Praveen Maheshwari: Thank you, Dev. I will take you through the India Business Growth Strategy and Related Projects. But before that, I'll take you through the key developments in our business segments and Indian operations and how the markets are performing. Starting with aluminum, aluminum is growing at a good pace. The average CAGR is about 6% to 8%. And it is expected to double from the current 4 million tons of consumption in the country to about 8 million tons in the next 10 years. As you can see all the business segments under aluminum like building and construction, transport, packaging and others, they're all growing very fast and doing very well demanding higher consumption of aluminum in the country. And building and construction it is being driven by increasing housing demand and premium projects coming up. We are expected to be the third largest market in the world by FY'32. Transportation is being driven by share of EVs increasing and light weighting happening in this market. Packaging as it is with pharmaceutical, liquor, food and beverage is growing. And other segments like electricals and consumer durables are also growing in India.

Coming to copper, copper is growing even at a faster pace in the country. And it is expected to more than double in a decade from current about a million-ton consumption to about 2.4 million tons by FY'32. And this is again being driven by various segments. For example, eMobility is driving because of the EVs and light weighting, etc., The batteries, electrical motors. Urbanization and smart cities is also giving it a fillip because of the government's focus on the infra investments in the country. Various sectors are getting IoT enabled and that is causing electrical motors and sensors and similar products being demanded. New age lifestyle like ACs and refrigerators, etc., are causing demand to go up. Clean energy and other segments also are driving the demand very high. So, different sectors are growing between 6% to 12% in copper consumption.

The third business segment that we have is on the speciality alumina. That is also growing both domestically and even globally. Alumina is a special product which has applications in areas other than metal as well. It is coming because of its special qualities of being a hard substance being abrasive and also being fire retardant. So, it has applications in ceramics, automotive, petrochemicals, similarly, wires and cables, electrical, electronics, steel industry for refractories, cement and glass, automotive, medical and aerospace for electronics. So, it has multiple applications and this is also growing globally at about 4% to 5% and domestically between 10% to 18%. So, this we believe has a huge potential going forward.

Coming to the growth capital expenditures in these segments, as you're aware, we recently completed two acquisitions helping us to grow in our downstream sectors value added products. One was in the copper segment which was Ryker. We acquired this copper rod facility having 225 kt, this has been already completed and it's continuously adding value to our business. The other was in aluminum segment where we acquired extrusion facilities of SAPA from Hydro and that is 15 kt but high value-added product is being produced. So, that is also completed in this quarter.

Coming to the various growth organic CAPEX that we are pursuing, in aluminum upstream, there are various bottlenecking opportunities that we see both in alumina and smelter expansions in the existing plants of Utkal, Aditya and Mahan. There are other Greenfield and Brownfield opportunities that we're pursuing. In case of alumina, we are looking at alumina expansion of a million-ton potential in Odisha at a cost of $850 million.

The Brownfield smelter expansion we are looking at in Aditya or Mahan, but this will be with the third-party renewable power so that our ESG focus remains and we are able to expand without adding to the carbon footprint.

In the downstream, we have announced various projects. Importantly, the FRP project which is a large project, $400 million 170 kt facility being added there. Extrusion at Silvassa is already underway. And the coated AC fins, which is a part of the PLI scheme under Atmanirbhar Bharat program is also under various stages of implementation. We are also evaluating can recycling and battery foil mill as two new areas under the downstream aluminum businesses.

In Copper, you're aware of the inner groove tubes for the air condition business and alloy rod project which we already announced. But we are also looking at recycling and e-waste recycling particularly with about 100 kt capacity. And once this was evaluated, this will be announced.

Specialty Alumina, we already announced two projects here, which is on precipitating hydrate and white hydrate, as well as synthetic aggregates. There are other projects under pipeline, which are being evaluated multiple projects. And this can add up to 165 kt additionally in the specialty alumina expansion projects.

The other big important segment for us is the energy security for us. As you're aware, we recently acquired the one Chakla coal mine and Meenakshi coal mine as a part of the auction. And these mines will produce significant amount of coal over a period of time because they're up and running and will help us secure our coal resource for the existing smelters.

So, these are the various growth CAPEX that we are looking at. And where does it lead us to? It leads us to growing our aluminum production from 1.3 million tonnes today to 1.53 million tonnes. It also almost doubles our downstream capacity from the current 350 kt to about 600 kt. Alumina capacity will go up from 3.6 million tonnes to 4.9 million tonnes. Copper VAP has already gone up because of the CCR acquisition. But from here onwards from 540 to 565Kt it will go up. Cathode capacity also with the recycling, etc., will go up by 100 kt from 421 to 521. Specialty Alumina as we talked about earlier, VAP projects will take our capacity from 361Kt to 666 kt over a period of next about five years.

I will now hand over to Satish for an update on sustainability.

Satish Pai: Thank you, Praveen. And we now we're going to describe a little bit in detail on our various ESG initiatives that we have launched to meet the commitments that we have made. But first, let me remind you of our commitments in the same slide we used last year. I'm going to start in the middle from safety because I think for us in Hindalco and Novelis safety is paramount. We are very focused on improving our safety performance and reaching a zero harm status. We are quite focused on diversity and inclusion. And I think that the Aditya Birla group's efforts in CSR and sustainable livelihood are quite well known. We are also committed to a very high level of governance, as well as customer centricity.

I think now for the remaining part of the presentation, we will dive a little bit deeper into the E-part. So, we have made some very ambitious commitments of reaching net carbon neutrality by 2050, zero waste to landfill by 2050, water positivity and no net loss of biodiversity by 2050. So, in this remaining part of this presentation across Novelis and Hindalco will try to show you specific projects that we have launched for this.

But before that, I just wanted to remind you as Mr. Birla said in his opening comments, we have been ranked again for the second year in running as the number one sustainable aluminum company in the world by the Dow Jones Sustainability Index. And we are one of the only five Indian companies that constitute the DJSI World Index. So, an international recognition of the sustainability efforts been put out by Hindalco and Novelis together.

I will now hand it over to Steve to talk about Novelis and ESG.

Steve Fisher: At Novelis, we have an ambition to be the world's leading provider of low carbon, sustainable aluminum solutions that not only advance our business but advance as an industry and society towards the benefits of a more circular economy. In line with Hindalco, we've also set a goal to be carbon neutral, no later than 2050 and a near term goal to have a 30% reduction in our carbon footprint by 2026. You can also see that we set 10% reduction, both in energy and water intensity, by 2026, and a 20% reduction in waste to landfill again by 2026.

Now in order to achieve the 30% reduction in our carbon footprint, and ultimately, as a longer-term goal, it's going to take a lot of actions and a lot of work. It's going to take more recycling capabilities, recycling capacity, it’s going to require redesigning of our alloys for low carbon alloys, redesigning processes and our operations to reduce carbon there. And this will take some time. We're also great. Start with a number of actions that we've already put in place. We've invested in recycling capacity in all four of our regions. And we'll continue to invest in recycling capacity. We are looking for ways to reduce carbon in our operations. One great example here is the establishment of the collaborative Net Zero Lab that is being set up at our Sierre, Switzerland facility. Here, the lab is developing a carbon-neutral solutions for the manufacturing of aluminum. Our near-term goal or one goal coming out of this is to find a carbon neutrality for scope one and two at our Sierre, Switzerland plant itself by 2030.

We will continue to design carbon alloys. Here, a great example is our pre-anodized specialties, high recycled content specialty alloys that has greater than 90% recycled content in it. We'll continue to do what we have been doing and maximize the circularity of a closed loop recycling systems with our customers and we've got a lot of successful there. We've certified 14 of our plants with the aluminum stewardship initiative. And this shows our responsible, sustainable commitment.

Three alloys in our North America building and construction business have been independently certified by GreenCircle with a recycled content worth of 99%. And will continue to be very balanced and find sustainable source of primary aluminum as well.

Now, our sustainability report will be out in a month a little bit more, and will give you all the updates on a number of metrics. But I wanted to spend just a little bit of time just talking about our journey in decarbonization of our baseline of 19.8%. We set 30% as a target for fiscal '26. And as I just talked about a number of very significant initiatives, that is making meaningful reduction in our carbon footprint. Now this comes in the face of us having higher carbon footprint because of the expansion projects as Dev mentioned. And those are coming because of real sustainable solutions competing against other materials. But it doesn't matter, we're still set on getting the overall 30% reduction, and even taking those into account the pluses and minuses, you can see we are very close to achieving what we set out to for fiscal '26 getting down to 13.9% all in emissions. The other really powerful message here is the reduction on a CO_2 intensity per tonne, reduction from our baseline of 47%. So, a lot of great work going in here. Very proud of what we've been able to accomplish over the last few years and what we have in front of us mapped out in front of decarbonization.

Satish Pai: So, now to talk about sustainability at Hindalco, I just wanted to just recap some of the recognitions that we have received in the last year. Our products like Eternia, which is doors and windows, Everlast, which is roofing solutions have got the GreenPro Certification. So, we are creating products that actually are sustainable and reduce the carbon footprint. Hindalco actually released the first integrated report last year and from the Institute of Chartered Accountants, we won the Silver Shield. Hindalco's plants in India, we have started the process of ASI certification, and Mouda has been certified. We have won various other awards from CII, Frost & Sullivan that recognizes some of the work that we are doing from an environment and sustainability point of view.

Let me now talk about Hindalco's journey towards net zero carbon. This is probably the most ambitious and most difficult targets for Hindalco in India as majority of our power, which is captive comes from coal. We are now working on this issue on a couple of fronts. The first one is of course, efficiency improvements by reducing the kilowatt hour per ton. And as you can see, every year we steadily get more and more efficient using different technologies, some of which we have now patented.

On the renewable side, we already reached 100 megawatts of solar. And we now have a line of sight for another 100 megawatts. We have started to work on other renewable energy sources like biomass. We are working now on a large-scale renewable hybrid project with a third party, Pumped Hydro, which can give us probably up to 100 to 300 megawatts. And this is related to the Brownfield smelter expansion project that Praveen talked about. Besides that other initiatives like what I've talked before, we're going to hopefully start the LNG or the gas to fire 50% of the fuel to our turbines in Odisha. We are working on a pilot for carbon capture and storage and utilization. We are even close to launching a pilot in green hydrogen.

So, a number of initiatives to work towards the net zero carbon. The FY'25 target for us to reach 200 megawatts of renewables, largely solar and wind and try to get about 100 megawatts storage which is above 75-80% load factor so that we can expand our smelting capacity.

We have also taken a specific target to reduce our carbon footprint, as you can see from the baseline of FY'22, we're going to reduce it by 25%. And steadily moving towards it with many of the projects that I just outlined on the previous slide.

Now, let me talk about some of the other commitments. Net water positivity by 2050. We're actually using about 65 to 70 million cubic meters of water. And to get to net positive, we are working on a number of fronts, increasing the rainwater harvesting, reducing the consumption of fresh water and making all our plants zero liquid discharge. We think that we are well on our way as you can see in the blue box, a number of projects that are ongoing, and we think we are quite confident of reaching net water positivity by 2050. I think in the next couple of years, our mines will be the ones that he will be net water positive, and then the downstream plants and then of course the smelter. A large part of our water usage is in the power plants for the smelter.

We are committed to no net loss of biodiversity as well by 2050. We have developed four Biodiversity Management Plants with IUCN and four more are under preparation.

We actually launched a sustainable mining charter that we developed with an international body like Xynteo. This has been appreciated by Indian ministries, including MoEF and there is a movement now to try to get this charter to be adopted by the Indian mining industry. We do a lot of work on increasing the Greenbelt development and you can see the statistics on the left hand side. In each one of our plants, I have listed like in Utkal, Aditya, GarePalma and Baphlimali, specific projects to increase the green coverage.

We are committed to zero waste to landfill by 2050 and in FY22, we have reached 82%. I think this is quite a remarkable achievement and Hirakud FRP now is a zero waste to landfill downstream plant. Again, number of technical and other process work that we're doing to get to zero waste to landfill by 2050.

On the circular economy on the red mud side, besides Utkal, the other three refineries are nearly 100% being reused in cement making. Utkal plant, the pilot project of mine backfilling is making good progress. And once that pilot has been approved by MoEF, then all the bauxite residue will go back into mine backfilling, which will be truly a first of its kind in the world.

On the fly ash recycling, I'm very happy to tell you that we have now reached 112% this year. So, that means beyond what we generated, 12% from landfills has been sent to cement and other uses.

Now, with that update on the environment, and sustainability, I'm going to turn it over to Praveen to talk about shareholder returns.

Praveen Maheshwari: Thanks, Satish. So, as you're aware that we are now experiencing enhanced all round performance, and this has been possible, mainly because our operational performance has been very consistent, our plants have been running very well, well maintained, and all the processes, etc., being looked after. We've been able to complete our projects in time. You've seen both in Novelis and Hindalco, we've been able to complete these projects within time, not only time but also costs and additional returns are getting generated from them. You heard about Aleris acquisition where synergies are flowing in as planned and in fact, better than planned. Of course, macros have also been supportive. As a result, you're seeing outstanding financial results, both in Indian operations and Novelis operations for Hindalco. This is resulting into very stable cash flows and reduced leverage. As a result, we have a very strong balance sheet now. We have improved ROEs and ROCE and which is finally converting into higher shareholder returns.

As an example, if you just look at the net debt to EBITDA charts for Novelis, India business and consolidated you see a significant decline in the leverage which is helping the company to become almost debt-free. So, we are at 2.29 times in Novelis compared to 3.79 times. We are below one in India compared to 3.3times for a couple of years ago. And on the overall basis, consolidated net debt to EBITDA is 1.62 times as of December ‘21.

Going forward, we believe that we have deleveraged our company very well. And therefore our focus needs to be now on growth CAPEX. We intend to allocate 75% of our free discretionary cash flows to growth CAPEX going forward. Just to refresh, the free cash flow is the cash flow after meeting normal working capital and maintenance CAPEX requirements. So, this is truly a discretionary kind of cash flow. About 15% of this will go further into net debt reduction due to certain scheduled repayments that are happening, both in Novelis and in India. And therefore, the amount available for shareholder returns is about 8% to 10% of such cash flow on a sustained basis. So, we see this as a strategy going forward.

I hand it over back to Satish for closing remarks.

Satish Pai: Thank you very much. I think now to summarize, if you have seen through our presentation, we have committed to be from an ESG point of view and industry leader in sustainability. And I hope that you have seen that there are a lot of very specific numbers that we are tracking and projects that we are doing to get to our very ambitious commitments that we have made for 2050. I think as Praveen just outlined, we have worked on enhancing value to our shareholders, by the various inorganic and organic method projects that we have done in these many years. And I think that now with the deleveraging behind us, I just wanted to emphasize again, that going forward majority of our free cash flow after maintenance CAPEX will be directed, 75% of it towards our internal growth project, which we have shown you the pipelines for both Novelis and Hindalco. And I think we also remain committed if you see our wide and diverse portfolio to providing products and solutions that will bring value to our customers. So, with that, I thank you for your attention, and we will now open up the floor for questions and answers.

Moderator: Ladies and gentlemen, we will now begin the question and answer session. We'll start the Q&A session with audio questions followed by video. We will take the first audio question from the line of Sumangal Nevatia from Kotak Securities. Please go ahead.

Sumangal Nevatia: Yes, good evening, everyone and thanks to the management for organizing this event and giving us this opportunity to better understand the company and also sharing such informative presentation. A couple of questions. First, on the new projects which have been announced, a lot of these projects, especially the upstream CAPEX have been categorized under appraisal. So, just want to understand at what stage of appraisal, these projects are, and given that we've shared exact timelines and even CAPEX for these projects.

Satish Pai: So, just to give you a broad overview, many of these under appraisal projects are in fairly advanced stage of approvals. So, we have to of course go through some of the size of this project, requires us to get mandatory board approvals, etc., So, it would be fair to say that many of these projects are in fairly advanced stages, but some of them are in fairly early stages as well, like some of the upstream projects in India, I would say are sort of still under appraisal and will take some time before we launch them.

Sumangal Nevatia: Mr. Pai, then in terms of the schedule of the CAPEX, which we are looking over the next five years, if I add the Novelis CAPEX of around $4.5 billion in India, and then some bit of in maintenance CAPEX, roughly we are looking at spending $9-odd billion in the next five years. So, do we expect a run rate of around $2 billion from next year or it's largely going to be back ended, any thoughts on the schedule of these CAPEX?

Satish Pai: You have done the math correctly between five and three. So, you have roughly on a consol basis about $8 billion worth of projects that we have outlined. Our assumption is that we will be generating between close to let's say around $2 billion of cash flow after maintenance CAPEX. So, that is our plan over the next five years. We're quite confident about the Novelis cash flow, fairly confident, but as you know the Hindalco part is a little bit LME dependent, but fair to say that we think that we will be generating around that $2 billion worth of cash flow and hence we can adequately fund this $8 billion plus of projects that we have outlined in this presentation.

Sumangal Nevatia: We are announcing these projects probably the peak or at least one can say it's a very strong cycle. And these projects will be quite value-accretive, return accretive at this stage of the cycle. At what level of aluminum prices and even the Novelis margins on the lower side, will these projects still make sense from a return perspective, any sensitivity or any scenario analysis that you would have done if you would like to share?

Satish Pai: Again, talking at a fairly higher level, the Novelis business as you know is not that sensitive to LME and hence, we always aim for a very high level of IRR. I think for the first time in Novelis, you will see large Greenfield projects where the minimum baseline will be mid-teens IRR, the Brownfields normally give you a lot more. I think that the India business is where the LME level becomes more sensitive. We are quite conscious that currently we are going to probably some of the highest levels of LME. But that's a different question on the macros. We think that LME is going to be fairly at reasonable levels going forward. But even if you see the India business, the downstream ones is where we have prioritized and already got approval and started. Some of the upstream expansions could be sensitive to different levels of LME.

Moderator: We take the next audio question from the line of Pinakin Parekh from JP Morgan. Please go ahead.

Pinakin Parekh: I have two questions. First, wanting to understand the framework in terms of the earnings outlook that the company has. Because one of the consistent themes that we keep on hearing from investors is about demand destruction, especially if aluminum prices remain above $3,000 a tonne, we could see end demand destruction in US and Europe, particularly in the segments that Novelis operates at which are consumer facing segments. So, at this point of time, does management see that if alumina prices were to sustain above $3500 we could see demand destruction for the business segments of Novelis which could bring margin compression as well or are those demand segments immune to aluminum prices even if they go above $4,000 a tonne?

Satish Pai: Good question, Pinakin. Now I'm going to give a generic comment and I'll let Steve. So, I actually have reviewed a presentation. It was interesting for me because on the auto sector, we were looking at steel versus aluminum because the demand, if you don't use aluminum, you have to use something and in auto it was normally steel. And what has happened very interestingly is that it's not just aluminum, even steel prices have gone up substantially. So, at the current levels of LME, actually, the balance or the choice between steel and aluminum has not changed. Now, this being said, what can lead to a demand destruction is if only aluminum prices keep going up, and the other commodities, especially steel and all don't go up. So, I think that is the factor that will be critical towards any long term destruction of demand point of view. Otherwise, the tailwinds of aluminum, which is driven largely by ESG sustainability, the high re-cycling that you can do with aluminum provides it with quite a lot of tailwind even at these higher prices. But Steve, you want to add any more comments to that?

Steve Fisher: I think you've answered it very well. And as Satish said, all prices are rising, whatever we're competing against, whether it be steel or PET are all rising, and we're just not having those conversations with our customers. And quite frankly, we're having just the opposite conversations about the sustainability trends and long-term solutions, which aluminum plays very well in. And so from the remarks that we made earlier, we see all of our markets very strong right now. And I don't think aluminum destruction, other things geopolitical, risk and other things to drive different buying behaviors potentially. But I don't think it's an aluminum issue versus other commodities issue. I think it is based on kind of some of the things that we outlined in our presentation

Pinakin Parekh: Just to push this question a bit more, we have not seen a proper FED rate hike cycle in 20 years. And now there is talk about the FED aggressively raising rates because inflation is moving very high. If the Fed actually does end up rising interest rates over the next 12 to 18 months, do we expect an impact on consumer spending negatively to flow through to the key end markets that impact Novelis or again, the Novelis business segments would be immune to higher inflation and higher interest rate?

Steve Fisher: So, majority of our business 58%, as we outlined is beverage cans. And we don't really see that has impacted by interest rates. Parts of our business could be impacted by interest rates would be potentially the automotive sales, people use vehicles, housing starts that could have some impact. And I guess I would just reference back to kind of the comments coming out of the Fed, which is they believe that they can control this with some rate increases and keep the economy moving in the right direction. So, of course, if they overshoot, there could be some risk to portions of our business, but not the vast majority of our business.

Pinakin Parekh: My second and last question is on the ESG footprint and ESG initiatives that the company has announced. But at the same time under the India CAPEX, there is nearly half a billion dollars spent on captive coal mine production increase. So, does it mean that while the company remains committed to greener aluminum, reducing carbon footprint is it fair to say that over the next few years, coal would remain the main stay for aluminum smelting?

Satish Pai: Pinakin, it's a very interesting question and I want to give you this point of view. The coal that today we buy is mined by Coal India, or, let's say, third parties in a specific way. Our assertion is that when we take these coal mines, we will mine this coal using the latest technology with our efforts on water biodiversity. Our coal consumption is not going up but the coal is being bought captive and being done in a much more efficient way. This actually improves maybe in some ways our carbon footprint because we will not mine this coal with as much as energy than as much pollution as maybe some of the others would have done. That's I think my first point. The second point is yes, in the near term, no business in India can substantially reduce its exposure to coal-based power. So, I would just point out to all the different projects that we are doing, whether it's solar, whether it's wind, whether it's with biomass, we are probably compared to many of my other competitors in other parts of the world, putting a lot more money and effort into finding alternates to reduce our carbon footprint. But fair point to say that in the next couple of years, will this sharply bring coal power down? The answer is no. But I think that's why the whole point of the presentation was to say that we made the commitment and hence then we are putting money where our mouth is and investing in these projects to try to reduce that carbon footprint going forward.

Moderator: The next audio question is from the line of Indrajit Agarwal from CLSA. Please go ahead.

Indrajit Agarwal: Hi, good evening and thank you for this elaborate presentation. I have two questions. First, on the repatriation or dividend from Novelist to the Hindalco parent business, does that policy still stands or there is any change to that policy as of business?

Satish Pai: There is no change to that policy.

Indrajit Agarwal: And my second question is relating to the current power cost inflation that we are seeing particularly in Europe. So, how does that impact Novelis business? So, I understand we have three quarters of our cost is hedged. So, what is the duration of these hedges? And when do these hedges come for rollover? And what kind of impact do you foresee in FY 23-24?

Devinder Ahuja: I think you got it right that we have significantly decent hedged positions when it comes to energy. Three fourths of our energy is hedged in Europe. And really same applies for gas in North America, also some electricity in North America. Now, the thing that has happened in the quarter that is ongoing now is that energy prices because of the geopolitical situation have just gone through the roof, I mean, it's a situation that nobody ever remembers having seen in any recent or mid term memory. As a result of that, even the residual non hedged portion is hurting. And when energy prices go up two to three times even if you are 25%, unhedged, I mean, it just becomes a bit of a burden. So, as we speak, in this quarter, inflation and particularly energy prices are going to hurt us. So, you should be prepared to see that. So, these are headwinds, which are really driven by geopolitical factors and it will have some impact in the short term.

Indrajit Agarwal: So, the hedges which are coming up for renewal, are you renewing them at a higher level, or you are just probably not hedging or waiting out and to see how the prices settle?

Devinder Ahuja: So, the thing is that for the next fiscal year also, we are hedged to the extent of three-fourth. So, we don't feel the urgency of taking any hedges now for future in these abnormal geopolitical times. We can afford for things to stabilize. And we are very confident that in the short to mid term, some of these abnormal headwinds will go away, and then we will take a position.

Moderator: The next audio question is from the line of Amit Murarka from Axis Capital. Please go ahead.

Amit Murarka: So, just on a comment that you made that you are looking to do more captive coal production. But in the past, like I remember you mentioning that the captive coal blocks are generally more expensive when you use it as a last resort only during the monsoon period when availability from Coal India is lower. So, is there a shift in strategy on coal now from you?

Satish Pai: I think you're mentioning the first coal mines like Gare Palma, Kathuthia that we got, I think about three or four years back now. When the first auction that happened, we had taken them and at that time, we had bid a little bit aggressively and we had said that we were countering imported coal prices. The current blocks that are coming on, they tend to be more of a Greenfield. And the pricing that we will get from these captives if you look at Meenakshi, 12 million, Chakla 4.5, these are below the linkage auction prices. So, one thing that we have to notice that in three to four years when these two mines come on, the power cost, let's say stability that you will have, in the Hindalco smelters will be quite remarkable because we will not be exposed to e-auction or imported coal or linkages for that matter going forward.

Amit Murarka: And just lastly, on the objective of achieving a net zero emission, that's by 2050, right?

Satish Pai: Correct.

Amit Murarka: And is it more like a desirable goal or is it like a firm commitment at your end?

Satish Pai: It's a fair question. And I think that in India, it's a real challenge, but I wanted to assure you that we are building a model and we are going to run it through the science based target guys as well, with specific targets to be put for every five and 10 years. And I think that we will make our best efforts to reach that goal. It's going to require not just Hindalco, but as a country India has to find alternate sources of energy which are much cleaner. If you know Prime Minister, Modi, has I think taken a slightly longer one, 2070, If I am not wrong. The country right from the political establishment is all committed towards finding greener sources of energy going forward. And I think that Hindalco as a technology leader we are playing our part in trying to be at the front of that game, taking different projects, whether they are carbon capture and utilization, or green hydrogen or using natural gas in the boilers. We are trying to be on the forefront of some of that experimentation and pilot projects that have to happen before we can actually reach that goal. So, I guess that's our strategy. It's not whether we can reach it, I think for the sake of humanity, the countries have to get to that goal of zero carbon by 2050.

Moderator: The next audio question from the line of Abhijit Mitra from ICICI Securities. Please go ahead.

Abhijit Mitra: My question is to Steve. Just to retrace back the history a bit, when the first expansion was announced in FY'11 and I think you've mentioned in the slides also, it was a $2 billion expansion and at that point of time, guidance was given that your EBITDA per ton will increase from $300 to $450. This was almost a $1 billion of additional EBITDA that we were supposed to get by spending $2 billion of CAPEX, which we did achieve that, but the scenarios were not ideal in the sense that we required this spread to expand to achieve it. Now, on the contrary, today, when I see $4.5 billion of incremental CAPEX, along with increasing volumes, would you also like to give an increase in EBITDA guidance or else return ratios look a lot different than it was looking back in FY'11, on the incremental money that is being spent?

Devinder Ahuja: So, I think what I will say to your point is that we are in an extremely a different environment when it comes to our end markets as compared to way back in the early to the middle of the last decade, which you are referencing. For example, the kind of market conditions that we see are both on the demand side and related to that on the pricing side and driven by sustainability, new generation drinks, the acceleration of sustainability agenda also impacting the demand for aluminum and automotive, the shortage in the building and construction market in the US, for example, and even beyond, the fundamentals of the business are in a very, very different place. So, at this time, we are obviously not going to give you guidance, but what we can tell you is that these projects are going to be very significantly accretive to our earnings and we really don't have any concerns about the ability of these projects to drive earnings up and give us attractive returns. That's where I would leave it.

Abhijit Mitra: So, then on the medium term, and on the near medium term, can you lay down the tailwinds and the headwinds that you see in Novelis business? We can understand some of the tailwinds in the form of higher or rather headwinds in the form of higher energy costs and probably high working capital requirements also. What are the tailwinds that you see if an unforeseen scenario evolves?

Steve Fisher: So, we will mention a little bit of a headwind that we are seeing too. Obviously, market conditions are very robust right now. Everything that we can produce, for the most part we can sell and in the constraint on the sales only comes with to my conductor chips. So, it's at our customers or supply chain issues at our customers where they can produce at any given point in time. We also obviously with our recycling business and increases and increases in overall aluminum prices, we do see a benefit in that side of the business as well. Now, offsetting that there are headwinds that we are having to deal with and significantly coming at us in the fourth quarter. Semiconductors chips has continued in the fourth quarter similar to what we've seen in the first three quarters, maybe a little bit worse with our overweight to our large customers in North America, have had further issues with the ability to source this chip. Second is the geopolitical Ukraine-Russia war that's driven the energy prices up, that Dev spoke about. That is a significant headwind that we're experiencing in the fourth quarter as well versus what we would have seen in third quarter. Supply chain interruptions, we've had a trucker strike at the Canadian border, we continue to see disruptions in supply chains on ocean freight, process source, the right materials, to the right place at the right time has caused some operational issues driven by some of the supply chain disruption. So, those are not permanent. When you start to think about the medium term, those will come off. It's hard to predict exactly when. But as we think about the very, very near term, it's a difficult market conditions to deal with, outside of the very, very favorable market conditions that we see in the market that we could get to. Maybe I'll just ask Dev, if he wants to add a little bit more and maybe give a little bit more quantification of any of that.

Devinder Ahuja: Thank you, Steve. So, I think that we really need to emphasize on two things as far as the immediate quarter and maybe the short term is concerned, the two themes of inflation and supply chain disruption. Inflation is what I already said earlier to Indrajit's question, particularly energy prices in Europe, but globally, are on a runaway track. And they have delinked themselves from metals, because typically, some inflation was there even in the earlier quarters, but we were able to offset them with metal and recycling benefits keeping, in this quarter, it has got a bit delinked because of the abnormal geopolitical environment. So, in general, inflation, most of it being energy, we could have an impact of somewhere in the vicinity of $40 million in this quarter as compared to sort of let's say maybe the earlier two quarters in some ways. Supply chain disruption is the other theme. I mean, at least in my memory, I've never seen supply chain so disrupted as we are seeing now. The ability to source material in time, in many cases or sometimes source material at all, has been a headwind. And as a result of that, combined with the continuing semiconductor chips issue, which got a bit exacerbated this quarter, we are seeing some immediate short term headwinds. All in all, I would say, as I mentioned, in the vicinity of like $40 million inflation impact, another about $30 to $35 million or so of sort of supply chain and other disruptions, including some extra impact of chips over the normal $25 million that we have been saying is something that we are facing at this point as we speak. So, that's just to give some color.

Moderator: We take the next audio question from the line of Ritesh Shah from Investec. Please go ahead.

Ritesh Shah: I had a specific question. I had two questions. One is if I look at slide number 37 and slide number 40, we have indicated carbon emissions. Just wanted to check whether it includes scope three emissions or not for both India as well as Novelis?

Satish Pai: Yes, I think for the Novelis one, for sure, it includes scope three and in India as well, you have to remember that for the India business, scope two is the majority because it's mostly power and power tends to be captive. So, yes, in both cases, though, I have to say in India, the calculation of the scope three we are not as systematic as we could have been, but in the Novelis case, yes, it includes the scope three.

Ritesh Shah: My question is specifically for India where we have given a target on FY25. It is excluding scope three, and if one had to go for incremental coal mining if the company had any incremental sustainable bonds, would you benchmark it to scope one, two and three together or would it be only scope one and two, taking into account our enhanced focus on having more captive coal mining going forward? So, I'm actually linking two things, just trying to get a flavor.

Satish Pai: Let me tell you, again, the coal mining is scope two for us. Because power is captive. So, this number that you see includes, and that's why you can see the growth projects, just like Novelis we add when we have growth projects coming in that increases the carbon. So, the calculation of the carbon emissions for Hindalco in India, this is scope two, is majority 90% of the emissions that you generate.

Ritesh Shah: And specifically, from the estimated number for FY22 versus the stated target for FY25, the reduction honestly doesn't look much from 19.7 to 18.1. It looks good on a baseline of FY12.

So, how do you look at our placement versus other global peers wherein they talk about black aluminum versus green aluminum? Is it something what we have indicated even on a target basis is like is it good enough to match up with a global peer?

Satish Pai: Look, global players are largely divided into three categories, people who have hydropower and have had it for the last 60 years, like Rusal and some parts of Rio Tinto. And then you have another bunch of global players like EGA, Alba that are natural gas. So, you go from about four to six tons to get about eight to 10 when you get to natural gas, and then you come to vast majority of China and India, which is in this 17, 18 type of tonnes per tonne of aluminum. So, I think what we are trying to do it from an India point of view, as I said, again, you are not going to see a coal based power, get much below. Bring this down to 18, we are adding renewable power to the mix. And the way we can get this further down is if our pumped hydro projects which I talked about 100 to 300 megawatts works, then you will actually start to increase the power consumption from that mode. And then it will sharply start to go down from 18 towards the 10s and 12. So, from a pure aluminum smelting point of view as I said, in India, this is where we are the most handicapped and this is where most of our efforts are going. But let me tell you, when you go and look at someone like S&P, Dow Jones looking at an ESG ranking, we are industry or world leaders when it comes to water, biodiversity, zero waste to landfill and this is where we get a lot of the additional brownie points that takes our ESG ranking up. So, that's why when I make my presentation to say when it comes to carbon because we are coal fired, that's where we are weakest. But let me remind you that most of the knowledgeable bodies who look at ESG, look at the holistic picture of the whole environmental impact and that's where we tend to do well. That being said, to get this to 18 is still a challenge for us with coal. And we have to bring it much more down, we have to get to another energy source.

Ritesh Shah: Sir, I just want to build a little bit over here. You indicated again on pumped hydro. I think we have given a range in the presentation. So, are we looking at incremental solar and wind corresponding to the pumped hydro commitment? I'm more referring it from an incremental CAPEX standpoint. So, if one has to look at something like Arcelor India recently made an announcement of $600 million, but they are actually setting up nearly 975 megawatts of solar and wind to cater to a particular pumped hydro capacity. So, how should one understand when look at from an incremental capital allocation standpoint, I'm more trying to understand from an incremental ROCE standpoint, when we allocate incremental capital?

Satish Pai: I think that our CAPEX we are putting towards our sort of internal solar and wind projects. When it comes to the third party that we mentioned on the pumped hydro, I think our commitment all I can say at this stage will be limited to the 26%, so that it becomes group captive. I think we'll leave this at that. I think probably our CAPEX will be at around 26% of what the project so that we qualify for the group captive.

Ritesh Shah: Sir, would you put a particular CAPEX numbers specific to all the ESG related CAPEX, is there a particular number which has been crafted out for FY25, CAPEX, which is related specifically to get the carbon intensity down for the India operations, is there a particular number that one should look at?

Satish Pai: No, I think it would be fair to say that if you look now, at our internal maintenance CAPEX, many things like water, FGD to reduce the SOx, all those we are now building into our maintenance capex. So, the one specific thing I'll tell you is that we used to guide our maintenance CAPEX around Rs. 1000 to 1200 crores a year. That now we have raised it to Rs. 1500 crores because some of these things we are putting into our normal maintenance CAPEX because again, on all these things, it's going to be a license to operate so that we have built it into our system. So, whenever we give a CAPEX guidance, we include all those going forward.

Ritesh Shah: On bauxite, do we have 100% backward integration with all the captive mines or do we still have tie up with external merchant miners on long term basis, just trying to get a sense on that?

Satish Pai: We are fully self-sufficient in bauxite, except for Belagavi, which is a specialty alumina plant, we do buy bauxite from third party sources but for Renukoot, Muri as well as for Utkal, we are 100% self-sufficient in bauxite

Moderator: The next question is from the line of Vishal Chandak from Motilal. Oswal. Please go ahead.

Vishal Chandak: My first question is to Steve. Steve, if you can just highlight what is the kind of threat from compostable or biodegradable packaging options that you're seeing currently? Can that be looked as a sustainable alternative to aluminum can packaging because it's more cheaper and obviously it's biodegradable so matches with your concept of recyclability, sustainability?

Steve Fisher: Yes, I mean, I think there's going to be more solutions than just aluminum. What's unique about aluminum is the infinite recyclability of it. So, if we can get it back, we can produce another can right back on the shelves in 60 days. So, it just keeps looping. And that's a closed loop recycling that we talk about and the closed loop circular economies that we talk about that we think aluminum beverage package has a distinct advantage. As it relates to biodegradable, in all of our discussions in what we're projecting from a growth standpoint, we don't necessarily see it as a threat to the growth that we've laid out today and certainly believe in the product, and our customers believe in the product of aluminum and then recyclability.

Vishal Chandak: My next question was with regard to the Brownfield expansion in India. So, at what LME do you think would be the breakeven for this Brownfield expansion? As you mentioned, Novelis cash flow is fairly projectable, but India is quite volatile in terms of LME. So, at what level of LME, do you expect this facility to be breaking even?

Satish Pai: I don't know about breaking even because the input costs are also something that goes up and down with the LME, but let me put it this way, I don't think you can just take an LME price and decide to do a project. What has caused us to relook because we have been quite conservative in saying that we will not bring in smelting capacity. What has caused this to relook is that there is fundamentally a supply/demand situation and aluminum seems to have changed. And it has changed for a couple of reasons. One is that China has shown remarkable restate and people believe that probably China will not produce more than 40 million tons of aluminum. Second thing is that for various ESG and other reasons, The demand for aluminum seems to be extremely strong, if you look at the presentation, both from the Novelis side and what Praveen made in India, aluminum seems to be in many ways, a metal of choice for many of the green initiatives, whether it's electric vehicles, whether it's aluminum cans going forward. So, what you're fundamentally seeing is that there is a strong demand and then you are going to see supply very constrained. Why that supply constraint is because everybody who needs to bring in new supply, needs to find a very low carbon source of energy. And this is why we believe that the aluminum prices are going to remain quite firm. And this is why if somebody can come up with an alternate way of powering the smelter, which is what we are trying to do with the pumped hydro project, then we believe that it's going to be financially very lucrative return. I don't think it's just purely dependent on an LME price anymore. And LME in the $2000s, would have given you a reasonable return, but at that time we didn't consider it.

Vishal Chandak: When you talk about green aluminum or when your competition talks about green aluminum so what kind of premium over LME does that command?

Satish Pai: I think this is where as a seller, you will want a premium, but I'll let Steve answer as a buyer, because I'm quite sure he doesn't want to give a premium.

Steve Fisher: Listen, we are diversified in our buying and are not seeing anything significant as relates to green aluminum premiums from our perspective right now.

Vishal Chandak: So, basically, the green aluminum does not drive any premium, but it drives up the cost and fundamentally, the whole question of sustainability from the buyers end is that we continue to push in more cost, but bear that on our end?

Satish Pai: Which is why my point was, that fundamentally, the supply/demand of aluminum has changed going forward, because of the big demand for aluminum that has to be powered, any new capacity has to be a low carbon source. And its, frankly, low carbon sources are either expensive or very difficult to get, which is why I think you're going to see the price of aluminum to be quite good. This is why if you look at the whole thing with the Novelis there is an increase the amount of recycling.

Moderator: Next audio question is from the line of Satyadeep Jain from Ambit Capital. Please go ahead.

Satyadeep Jain: A couple of questions. One is on capital allocation. You previously outlined 15% hurdle rate. When you look at all the projects you've outlined in your presentation, do you feel comfortable that they will meet the hurdle rate or put it another way did you evaluate capital return versus

CAPEX in all your capital decisions, and it ties to the Greenfield CAPEX for hot mill expansion in US, it's probably the first expansion of hot mill Greenfield in the last 20 years. There are two schools of thought there. One is the market is somewhat tight, the buyer is entering into longer term contract, pricing is somewhat attractive and take the first mover advantage. The other one is, as an industry leader, wait for the pricing to improve further before you generate ROCE rather than committing capital and not letting the market tighten as much as it could. How do you evaluate that decision in that kind of framework? And have you identified a site for the Greenfield CAPEX for hot mill expansion? And could there be a subsequent Brownfield possibility there? That's the first question.

Satish Pai: I think to the first part of your question, we absolutely evaluate the rate of returns on the projects. And as I said earlier, majority of our projects have a very good rate of return and the specific ones that you've talked about large Greenfield is where our minimum hurdle rate is in the mid teens. I think that it's a fairly good rate of return before we commit capital. But I'll let Steve now answer on the specific question you had on the US, Greenfield.

Steve Fisher: On the US Greenfield, I'm not so sure it's an either or I think we've been discussing that. We would need to see the right terms and conditions inside of contracts to move forward with any significant expansion anywhere in the world. And, as I think Dev mentioned, in discussions with our customers, and with support of our customers, we have seen that and we are in a position to be able to put something in the ground in a Greenfield manner in the US to meet the returns that Satish spoke of, we're very confident in that. And we didn't just speak of the US, our global presence, we have spoken of investments all over the world to support this growth. As it relates to site selection, we're down to the last piece in getting to the site selection, but the site is not something that we would disclose it at this time.

Satyadeep Jain: Second question was related to the Brownfield optionality in the portfolio kind of surprise to see significant optionality in both Europe and Brazil, especially the CAPEX for Europe was pretty low for Brownfield compared to just the industry average. But specifically on Brazil, you've outlined almost 0.5 ton expansion. I believe Novelis is the market leader with kind of a monopoly in that market. You've outlined sizeable increase in capacity in that market, almost doubling the capacity there. Did you see the trend of substitution for aluminum or the market being able to absorb that kind of supply in the next few years? I know the market is somewhat tight, but do you see the demand growing to that kind of level to be able to absorb that capacity?

Steve Fisher: What we're looking at from a capacity expansion standpoint is we're not saying that we would absorb in Brazil all that capacity in the next five years. And the market will not drive that level of increase in demand in Brazil. It's a great forecasted growth. But not at that level. We also have learned that we need to stay ahead from a capacity standpoint, specifically in Brazil, but also globally, when we're running at full capacity right now and we have customers knocking on the door trying to get more products, we're late to the game in some of these expansions. And so the other notion here is that we can utilize for a few years, that Brazil overcapacity to be able to support other parts of the world and support other customers. And so don't take the 450kt expansion over the next five years that will be full on Brazil, but it will be highly utilized throughout the world.

Satyadeep Jain: On the aluminum smelter expansion that you've outlined Brownfield in India, and you mentioned bid for round the clock, supply of power, maybe from green co and pumped hydro. Is it possible to outline what kind of pricing you're looking at for supply of power and how does it compare to the existing cost of production? I believe it's going to be higher than what your current cost of production for power is? Is it maybe possible to outline what kind of difference could you be looking at?

Satish Pai: Very good question. Let me tell you, the way we looked at it is the cost of power from the third party will be higher. But when you take in the cost of the RECs that we have to buy for thermal, and the fact that the pricing of the REC is I don't know, if you follow it, it's starting to go up as well. And the norms are tightening. So, if you look at a combination of the coal pricing going up, the RECs certificates that you have to buy, we actually think that we have a reasonable NPV being generated. not too much, but a breakeven type by doing this. So, yes, it's slightly higher, but taking into account some of the other costs that go with thermal, we think that it makes sense

Moderator: The next question is from the line of Amit Dixit from Edelweiss. Please go ahead.

Amit Dixit: I have two questions. The first one is essentially on Novelis. So, while you outline the supply/demand gap that are going to increase from FY22 to FY30 in North American beverage can market, is there any such supply gap number you might have in auto, how is it increasing? And just wanted to understand why people are not setting up beverage can facilities in US with the same way that you are if the market looks so attractive, that is on Novelis?

Steve Fisher: I can't speak to what our competitors are going to do or not do. I think we're in a very unique position with our balance sheet and our global footprint, our relationships with our customers that we feel very good about the decisions that were made, supported by investments that our customers have made in North America, $4.1 billion in 2018 in new capacity that's driving a significant gap as you highlighted. So, from that perspective, we think that we have an immediate position to play here. Coming back to auto, as Dev mentioned, even the Greenfield facility that we are potentially going to put in the ground in the US, it is not all Cans, there is a portion of that facility that will be dedicated to automotive. So, we do see continued growth in that market, the gaps not nearly the size of Can, but certainly it's one that we have to continue to find capacity as a market leader, therefore as well, and certainly that's part of that project.

Satish Pai: Just wanted to add one view, when you asked about the competitors. I think that to take the point that Steve was saying, if you see the size of the investment that's required, you will find that most of our competitors and others will need to have those levels of balance sheet strength to make an investment of that size. So, that is the first point. The second is as one of your colleagues said, it's probably the first new hot mill that will be put in the ground in over the last 20-years. So, I think that the confidence of the customers as to who can put a brand new hot mill and get that commissioned in time, I think they trust Novelis as the industry leader. I think many of the questions that have been asked, should you wait longer, should you try to squeeze the market more, I think as an industry leader and with the push of many of our customers, we are actually thinking that this is the right time to do it.

Amit Dixit: The second question is on specialty alumina business. As I see it in the slide, look very attractive, so much global opportunity. So, first of all, what kind of incremental EBITDA margins we generate over speciality alumina when you compare it with metallurgical grade alumina? And secondly, is there an option the company is exploring for exports of both speciality and the metallurgical grade alumina? Can there be a switch between putting up more specialty alumina capacity in place of metallurgical grade alumina if the market deems to be attractive because we are talking about a fairly long horizon and things can change midway?

Praveen Maheshwari: Yes, this is definitely value accretive. And that is why we are looking at it more seriously now. We are currently the only manufacturer in the country. So, that gives us an extra edge. The question about global market, yes, today also we export in a significant way, but really speaking, there's a huge potential out there. You asked about the switch between the metal grade alumina and specialty alumina. Yes, it is possible. And we are actually gradually seeing that happening. We have a potential to convert part of Muri Refinery. Today also do some specials on Muri. Belgaum refinery is purely specials, but Muri amount also can be increased going forward. So, maybe the answer to all your questions is Yes.

Amit Dixit: When I see the recycling content at Novelis from 59% if I look at the full-fledged capacity 3.9 over 5.8, it would be like, almost 67%. So, is it possible to let us know the product wise recycling content that you have currently, let us say in, auto beverage can I'm sure it could be the maximum and specialty, what is it now and how is it going to change with the fully blown 67% kind of recycling content?

Steve Fisher: We showed you on the slide that we're north of 75% in recycle content for beverage cans. We still think there's further opportunity to increase the amount of recycle material inside of Can sheet. So, we do see that as expanding. Our building and construction business in the US is 90 plus percent recycle content, very efficient, acquired from Aleris. Don't see that moving, or necessarily growing, because that's the continuous cast business versus the expansions that we're putting in. Especially categories vary, so it's hard to talk through all those. Automotive Recycling is on the lower side. And this is where we just announced a few months ago, the addition of recycling capacity associated specifically with auto body sheet. So, getting more back in the closed loop from our customers, as well as going after now end of life recycling for aluminum sheet on automobiles. And so we do see the recycle content growing in the auto sector in our auto sheet. And then finally, aerospace is very, very low for working. That will take a long time to qualify. But we are working from virtually no recycle content with a number of aircraft OEMs to figure out how we can increase recycle material in that as well. Primarily, it'll come in further penetration in Can and then more in Auto as we get more scrap back.

Moderator: The next audio question is from the line of Prashanth Kota from Dolat Capital. Please go ahead.

Prashanth Kota: Thanks for the opportunity and the management team really congratulate and appreciate the growth project plan that you put out as promised only a couple of months ago. Now, I have two questions. The first question is on we have outlined projects across India and Novelis over the next five years. And now our leverage ratios are quite modest and quite low… net debt to EBITDA kind of numbers. Even now you say you plan to reduce it further. Instead of doing all this in five years, why not do it in three years and allow some tolerance for net debt to EBITDA to go up to 2.5, 3. Growth CAPEX is reasonable, gives us more firepower earlier. Just wanted to know your thought process on this?

Satish Pai: I think that as one of your previous colleagues that asked, it's not that we have planned this project cycle just based on how much cash is available, because these projects, many of them require a lot of planning, we are going through quite a tough life cycle. When you try to order equipment now, some of the lead times that the manufacturers give you is also quite long. So, we will try to accelerate some of the approved projects as much as we can, but the ability to suddenly shift large projects from five to three year timeframe is a little bit not practical. The other thing is why are we deleveraging, because see, we have been very consistent in our communication. In India we have a $6,000 bond coming due. This is the highest interest rate, 9.5%. So, that we are going to repay next year. And in India we also intend to repay about Rs. 2,500-odd crores of Utkal long term loan. In India, we are quite still vulnerable to LME fluctuations. So, getting the gross debt down by another Rs. 8,500 crores I think in good times is a prudent thing to do for the India point of view. When it comes to Novelis, we don't have any large repayment planned at all. I think there is only a tail $300 million of a term loan left. Otherwise, most of the Novelis cash flow is going into its project.

Prashanth Kota: My second question is again on aluminum smelting capacity. As a country also we have committed something, 2070 goal to be net zero carbon, and as a company also we have 2050 for that. Why not temporary let emissions go up at an absolute level, but intensity will be lower, that is what I mean to say why not add more smelter capacity until 2027 or 2030 or 2035 and then maybe after 2035 we will have breakthrough disruptive technologies, which we are not able to foresee now for carbon capture storage and disposal or usage. Maybe if you are too conservative on not adding aluminum smelting now, in 2035 or 2030, in hindsight, if something disruptive does come and then good chance that something could come up, we say, okay, we missed, we feel that we should have done something. So, just wanted to know your thought process on that.

Satish Pai: Look, our thought process, let me be very clear, I mean, people like you who have been following what we have been saying over the last few years, it's a very India-specific question and my answer will be India-specific. We have said that we are going to try to increase the downstream content going forward in India. So, most of the capital allocation has been towards this value added downstream and that is actually starting to pay off, we're starting to gain good high curve sort of value products coming in. So, I think that is the first pillar of our strategy. We produce nearly 1.3 million tonnes of primary aluminum and our downstream portfolio is only about 350 kt. So, we want to replicate Novelis in India by getting at least to 600 to 900 kt of downstream products, because I think that the valuation, the multiples that the market gives to a downstream business, is a lot more than the upstream going. So, that part of the capital allocation and our first strategy, we are not changing. Now, what we are also saying is that this elevated high LME levels and with the increased cash flow we have, keeping in mind our ESG commitments because we have to look at the larger Hindalco Novelis picture here, and how our investors look at it. We can't just throw away everything and say we're going to add coal fired smelting in a big way, because that is going to damage the shareholder value and our investors who look at Hindalco and Novelis as a consolidated stock right now. So, we are trying to do the balancing by saying that we will look at smelter expansion, but we will look at it from a carbon point of view as well, which I think is the responsible way to look at it. I don't think we can just put in smelting and say oh, we hope by 2030, some breakthrough will happen. What if it doesn't?

Prashanth Kota: One follow up on that. Assuming capital and carbon is not a constraint, at Aditya and Mahan, what is the max capacity that can be added… what is the feasibility?

Satish Pai: With existing environmental clearances we have, we can double them. So, they are 360 kt each we can double both of them. These projects were built with that expansion in mind.

Moderator: The next audio question is from the line of Vikash Singh from PhillipCapital. Please go ahead.

Vikash Singh:: Sir, I just want to understand in terms of Novelis like we said we have taken some $40 million impact on the energy. So, in our contract, have we built in the additional surcharge also to our customers to recover the part of this cost or it is not feasible in our case, like these steel companies are putting additional surcharge on their customers?

Devinder Ahuja: We have a very good majority of our contract where we have a PPI pass-through which basically enables us to pass-through cost increases. Of course, in some arrears. So, as we approach the future quarters, as the PPI clauses, we have already started invoking the PPI clauses as we invoke them, we will start getting the compensation for the inflation in general. But just to broaden your question to make sure that we explain the whole pass-through situation, a vast majority of the freight that we are incurring has already been pass-through fully to customers. So, basically, with the help of PPI clauses, some direct pass-throughs, particularly freight and third, just the overall very strong pricing conditions, I think we are in a very good situation. The only exception that I elaborated earlier is that we are just in a very-very special and abnormal time at this point on energy inflation. And some part of that in the short-term, we will have to swallow it and we don't expect that this is a sustainable situation and things will get back to a more stable situation. Hopefully not too long from now..

Vikash Singh My second question pertains to our rolling and recycling ratio. Our presentation says that we would remain in 65-67% kind of the recycling content. Just wanted to understand are there any product-specific requirement which doesn't allow us to go the recycling percentage above that limit or is there a specific design which actually we just think that 65%, 70% is good enough for us?

Steve Fisher: I think we need to try for more than 65%, 67% and I gave a few examples of high recycle content alloys that we are developing and getting qualified in our building and construction business and in other areas. That takes some time. And so as we build out the kind of plans that we laid out today, it doesn't always take into account all of those initiatives that will continue to drive that it up. We have got good par score to the 65%, 67%. We feel really confident in that and we are going to continue to innovate and find ways to increase that over time.

Vikash Singh: Just a follow up on this. Right now there is some constraint which doesn't allow us to go beyond that level. Is that the correct presumption?

Steve Fisher: In majority of the situations, the constraint is actually getting the recycle content. So, we think about automobiles, we are waiting for end of life, aluminum to come back, find ways to collect that back. We know that if we can collect it back and segregate it, we can increase the recycle content in the alloy that we sell back to. So, that's vast majority of the situation is constrained by us getting the scrap back in circular economy system. When you think of beverage can as an example, we are starting to meet the limits, but we will continue to innovate and push pass some of those limits as well with support and collaboration with our customers in all these products.

Moderator: Ladies and gentlemen, due to time constraint, that was the last question. I now hand the floor back to the management. Over to you.

Satish Pai: I would like to thank everyone for participating in this investor call. I think that we try to elaborate our capital allocation framework, where we stand from an ESG point of view, and give you clarity as to the thought process going through the management minds. I hope we have managed to give you a clear picture of what we are targeting over the next five years and thank you for your attention.