

**Praj Industries Limited**  
**Praj Industries Limited Q4 and FY22 Earnings Conference Call**  
**May 26, 2022**

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**Moderator:** Ladies and gentlemen Good day and welcome to the Praj Industries Limited Q4 and FY22 Earnings Conference Call. As a reminder, all participant lines will be in listen only mode. There will be an opportunity for you to ask questions after the presentation concludes. Should you need assistance during the conference call, please signal an operator by pressing '\*' then '0' on your touchtone phone. I now hand the conference over to Mr. Anuj Sonpal from Valorem Advisors. Thank you and over to you sir.

**Anuj Sonpal:** Thank you. Good afternoon, everyone and a very warm welcome to you all. My name is Anuj Sonpal from Valorem Advisors. We represent the investor relations of Praj industries limited. On behalf of the company, I would like to thank you all for participating in the Company's Earnings Conference Call for the fourth quarter and for the financial year ended 2022. Before we begin, let me mention a short cautionary statement. Some of the statements made in today's earnings call may be forward looking in nature such forward looking statements are subject to risks and uncertainties which could cause actual results to differ from those anticipated. Such statements are based on management's beliefs as well as assumptions made by and information currently available to management. Audiences are cautioned not to place any undue reliance on these forward-looking statements in making any investment decisions. The purpose of today's earnings conference call is purely to educate and bring awareness about the Company's fundamental business and financial quarter under review. Now, let me introduce you to the management participating with us in today's earnings call and hand it over to them for opening remarks. We firstly have with us Mr. Shishir Joshipura, CEO and Managing Director, and we also have Mr. Sachin Raole –Chief Financial Officer and Director of Resources. Now I request Mr. Joshipura to start with his opening remarks. Thank you and over to you sir.

**Shishir Joshipura:** Thank you Anuj and good day everybody. I welcome you to Praj industry earning call for Quarter 4 and FY22 because all of you had the opportunity to go through the results presentation for the quarter that ended March 31<sup>st</sup>, 2022. I hope you and families are still keeping safe and healthy. Let me now briefly take you all through the quarterly business highlights and industry developments, following which Sachin will take you through the financials. The year has witnessed rising global awareness about energy security and low carbon intensity and a deep footprint across economies. Biofuels are finding increasing market traction across the globe. This is also evidenced in the speech of the Minister of Petroleum and Natural Gas, Mr. Hardeep Singh Puri during the World Economic Forum Davos earlier this week where he laid special emphasis on transiting to a different energy mix for the country for

production and use of biofuel from alternative sources as well as green hydrogen. As a world economy recovers from pandemic and geopolitical disturbances in Europe, we see a gradual return to normalcy of opportunities in international markets. The big movement for biofuels and waste to energy across the world is creating a positive opportunity field for Praj. Capacity addition for production of ethanol in India at the back of the advancement of E20 Target to 25-26 continued this momentum. Currently, the ethanol blending in petrol in India has reached nearly a 10% mark and we are certain that India will be at E20 target as planned.. Cabinet has approved amendments to the national Policy of Biofuels 2018 to advance India's ethanol blending target. The amendments approved include allowing more feedstock for production of biofuels, advancing ethanol blending target of 20% with petrol by five years to 25-26 from 2030. The amendment also allows granting of permission for export of biofuels in certain specific cases. The year witnessed a very strong execution of the order book. Despite challenges posed by ever increasing commodity prices coupled with challenges of supply chain disruptions and availability. We were able to leverage our strong project management capabilities and capacities efficiently as reflected in our improved asset turnover and return on capital employed. We managed to scale up the operations significantly without affecting the working capital cycle. Our bioenergy business continued strong performance with a healthy order book exceeding Indian Rs. 900 crores in this quarter. Around two thirds of these orders are from ethanol based on starchy feedstock. I am happy to share with you that nearly 30 percent of these orders are based on our new technology offerings. On international front we are beginning to see good momentum building for setting new capacities for ethanol production. With low carbon ethanol theme picking up in the United States and some other markets our ability to customize the solutions for reducing carbon intensity in operation will put us in a strong position to address this emerging opportunity. We are strengthening our reach in international market by enhancing our presence in Europe, South America and North America. We have formed a focus on revenue budgets business units that will serve customers post commissioning of the plants through the lifecycle. Offering such as performance enhancers, carbon dioxide capture solutions and O&M services will help customers address their productivity, environmental and performance problems. On the 2G front execution of IOCL project has progressed up to 90% completion level. Plant will commence commissioning from quarter two of this year. The war situation has pushed back the development of 2G projects in Europe at least by six months. Even as we continue to engage with customers in Nordic region for deployment of Celluniti technology, the new dynamics of energy management are likely to shape the demand for biofuels in Europe favorably.

On the CBG front in a much-awaited development government has revised the CBG prices from Rs. 46 per kg to Rs. 64 and indexed it to the price of CNG. This will certainly enhance the financial viability of the projects.

I am very pleased to confirm that we have successfully commissioned two projects based on press mud, the development on rice straw to CBG project at Badaun site continues and we

expect to commission in quarter two of this year. The new pricing policy is expected to revive the interest from the industry wanting to set up CBG capacities. As for the engineering and PHS business we continue to see momentum by way of healthy order book and improving inquiry basket. On the CPES front, business has built a robust order book and a healthy prospect base. Our strategy of working with select global customers in clean tech and green tech fields, such as green hydrogen and waste to energy is showing very promising results. Modularization is fast gaining acceptance with global customers and is clearly emerging as growth engine for the business. Almost 1/3 of the overall order books in the quarter worth for modules to meet the increasing demand for CPES business we are also adding capacity at our Kandla SEZ. On the brewery front, hospitality and tourism sectors are slowly picking up and beer consumption is reaching pre COVID levels. With this many brewery players are now considering their plans to set up new greenfield projects and capacity enhancement. Many MNCs and local players are also looking to attract new product launches in flavored beer and non-alcoholic beer segments. Zero liquid discharge continues to enjoy traction in our markets of interest such as metals, chemical, fertilizers, etc. On the PHS business front, our strategy of focusing on complex injectable and vaccine manufacturers have found good traction acceptance in the market. As Indian Pharma Industry transits to global size capacity building Biopharma space, we expect fermentation technologies to acquire center stage. Leveraging the parent organizations progress in fermentation and PHS's deep understanding of sterile applications, we expect positive development on the business side. RCM program in Praj Matrix is progressing as per the timelines and research. From the Technology Readiness point of view two projects have satisfactorily cross the bench scale development milestone. On the concerns front, continuously rising raw material prices coupled with supply chain uncertainties continue to pose challenges and pressures on March. The recent announcement the government on the steel front may help reduce some of the volatility and uncertainty on the pricing front. However, several geopolitical factors will impact the pricing level of commodities, and it remains to be seen if prices and stability will listen to pre-COVID levels in near future. The resulting pressures on margins from the above situation calls for several actions at our end to create a counterbalance. Our dynamic costing model coupled with strategic sourcing, visualization of processes and actions on standardization is expected to help us address these challenges. Overall, our business environment for our core businesses as also for offerings in clean tech and green tech space is developing favorably in the phenomenon of energy transition being witnessed in several economies makes us believe that our business will continue to see positive traction across different business segments. I am happy to share that during the global flagship industry event the Advanced Bioeconomy Leadership Conference 2022 at Washington DC, USA, our founder Chairman Dr. Pramod Chaudhari was bestowed with coveted 2022 William C. Holmberg Award for Lifetime Achievement in the Advanced Bioeconomy. This is the first occasion when this award has come outside of United States and that was a time when India is celebrating the Diamond Jubilee of independence. With this, I will now handover to Sachin for his comments on the financial platform.

**Sachin Raole:**

Thank you Shishir. The consolidated income from operations stood at Rs. 829.01 crore in Q4 FY22 as compared to 567.10 crore in Q4 FY21. PBT for the quarter stood 78.05 crore as compared to 73.19 crore in the corresponding period of the last year. Profit After Tax stood at 57.65 crore in Q4 FY22 as compared to 52.01 crores in Q4 FY21. For the full year ended March 31, 2022 income from operations stood at Rs. 2,333.32 crores as against 1304.67 crore in FY 21. PBT stood at Rs. 204.88 crores in FY22 as against 113.11 crore in FY21. PAT for 2021 was 81 crore and in FY22 it is 150.25 crore. Margins for the quarter has seen a reduction of 5.5% on account of continuous increase in commodity prices, an annual sales mix that is the higher domestic sales versus International. During the year we have also executed first of its kind projects in a couple of new technology areas which carried lower margins as compared to mature businesses. Export revenues accounted for 21% of FY 22 of the total revenue, 71% is from bioenergy, 20% from engineering and 9% from PHS business. The order intake during the quarter was 1101.5 crores with 84% from domestic market. Of the total order intake 91% came from bioenergy, 6% from engineering and balance 4% from PHS business. As compared to the last year export orders intake has seen 37% growth, there was Rs. 679 crore orders from the international market in the current year as compared to Rs. 495 crores in the last year. The order backlog as of March 2022 is at Rs. 2878 crore comprising of 86% of domestic and out of which 75% is from bioenergy, 20% from engineering and balance 5% from PHS business. Cash in hand as on March 31st stood at Rs. 623 crores. As mentioned earlier some of the projects at Matrix are reached to bench scale and investment is being considered in the demo plant to take the product development program ahead under the RCM program. The Board of Directors proposed a final dividend of 4 Rs 20 paise per equity share that is 210% of the face value of Rs. 2 per equity share for the financial year ended March 31, 2022 which is subject to the approval of shareholders at the forthcoming Annual General Meeting. This comprises of final dividend at the rate of 135% plus a special Amrit Mahotsav Dividend at the rate of 75% in commemoration of 75 years of independence. With this, I will conclude my remarks. Thank you all for joining and we should now be happy to discuss any questions, comments or suggestions you may have.

**Moderator:**

Thank you very much. We will now begin the question-and-answer session. The first question is from the line of Gaurav Chopra from Union AMC. Please go ahead.

**Gaurav Chopra:**

Sir my question was on the margins front, if you can sort of, our order book is fairly strong at Rs. 2010 crores and last quarter, we talked about that the incremental orders for what we are sort of taking accounts for higher raw material prices. So, qualitatively if you can guide us whether we should be there at double digit EBITDA margins in the fiscal 2023. If not why, if you can give us more guidance on that front.

**Sachin Raole:**

Okay. So, the order in which we mentioned in the last quarter that they are coming considering the higher raw material prices, that is true, but they are not coming to the execution stage they will start coming up maybe from Quarter 2 once the initial phase of engineering is over for those projects. Second thing the increase which has happened subsequent to that also

especially in the month of February and March that was absolutely over and above what we have seen in the last three quarters also. So, that was the additional burden which has come in the current quarter and to some extent on the orders which are under execution where the orders for the raw material was not placed. So, that is the margin pressure which we have seen. The way in which now commodity prices have started showing a little bit of downward trend, we expect that yes, the pressure will start coming down and we will see a reflection of that not necessarily in the first quarter, but we will be seeing maybe from the second quarter onwards.

**Gaurav Chopra:** Got it. So, broadly if you can think about fiscal 2023 as a whole is double digit EBITDA margins is a stretch or it is possible with the current scenario.

**Sachin Raole:** Gaurav I will not be able to give you the number per se, but we can see I mean that's the endeavor of ours that we will see the implementing the measures and that is the efforts we are going to put in. I will not be able to give you a direct answer to your question whether it will be double digit or not double digit.

**Gaurav Chopra:** Got it. So, secondly the order intake what we have in the quarter we have seen a 15% decline in the high purity segments. So, this segment is not we have been talking a lot about you know getting incremental orders from the pharmaceutical side and everything but seems to be not picking up. Any particular reason and is it expected to pick up going forward any color on that.

**Sachin Raole:** PHS order books on its own is definitely increasing. In the overall if you look at in terms of percentage, it looks like it is lower because the overall volume is very big. Otherwise, they are having their own order book this was eight quarter there they are continuously maintaining their streak of more than 40-45 crores kind of an order booking every quarter.

**Shishir Joshipura:** Order book actually is growing. In relative terms because the energy business is growing at a much faster pace. So, in a relative term it must look less but PHS by itself is not de-growing. It is actually growing fast.

**Gaurav Chopra:** I might be looking at some wrong numbers. I thought it was a 15% decline on YoY basis in terms of order intake.

**Sachin Raole:** No, no if you are looking at the absolute total number no, naturally the percentage wise it is less as Shishir mention that Bioenergy number is on a very high side.

**Shishir Joshipura:** Within our mix the numbers looking smaller, but within their business relative they are growing. Okay if I can clarify.

**Moderator:** Thank you. The next question is from the line of Lokesh Maru from Nippon India AMC. Please go ahead.

**Lokesh Maru:** I have a few questions. One is in continuation with what I had also asked last time on the macro front within the ethanol space. So, that goes like installed capacity in India has reached Rs. 850 crore liters like you mentioned and out of which 67% is sugar based, 33% is grain based. So, we are right now blending somewhere around 10% right and given the push towards the 20% blending, how much do you think would be the targeted capacity to achieve that 20% is it like 1500 crores or so is it fair to assume that.

**Shishir Joshipura:** So, Lokesh just to answer this question, so, we will need an operating delivered number of about 1400 crore liters to reach the 20% blending and if you look at that number that means the installed capacity will have to be about Rs. 1900 crores because this is a seasonal production number as well. So, my installed capacity loadable to Rs. 1900 crore liters and the delivered capacity out of this we estimate is over Rs. 1400 crore or in in that range.

**Lokesh Maru:** That is the jump from 850 to 1900.

**Shishir Joshipura:** Yes, that is correct. So, of the 1400 that we said, now, we are talking of the need at the country level, then about 1000 will come to the blending program and about 400 will go to the other application.

**Lokesh Maru:** Right. So, so that leaves us with somewhere around is it fair to assume for a ethanol program that leaves us somewhere around 20,000 KLPD, additional installations to go forward in next four years period.

**Shishir Joshipura:** I couldn't get a number.

**Lokesh Maru:** So, that would mean somewhere around 20,000 KLPD of installations in next four years. 20000 KLPD.

**Shishir Joshipura:** 20000 looks like, I don't know where you got that number.

**Lokesh Maru:** Sir that includes an assumption or, you know, 3.3 crores litres

**Shishir Joshipura:** Roughly correct.

**Lokesh Maru:** So, sir at an industry level, how much revenue potential does that mean?

**Shishir Joshipura:** Well, you know, this question had been asked many times and we have tried to explain. It depends the scope of work that depends on multiple factors, number one, what the feedstock is, number two if it is Greenfield or a Brownfield. Number three, if Greenfield is a co-located project. Four what is the scope of work. So, to see the number out on this capacity becomes very, very difficult for us. It is not easy, because there are so many variables there for us to say, somebody can debottleneck an existing capacity, change the feedstock so there are many

dimensions try within a small capacity production can go up. So, it is a tough number for us to calculate, to say, okay, this means so many crores of opportunity.

**Lokesh Maru:** On the same since the orders are very strong. So, we are maintaining what kind of market share as per your calculation.

**Shishir Joshipura:** We are maintaining our market share as we have indicated in the past, we do not see any reason for any market share change to happen in our business as of now, it is just that as I mentioned last time, it is around 60% and we had mentioned that we are seeing a shift of feedstock from more sugary bits feedstocks to more starchy feedstock and that is also been borne out by our order book in the last quarter

**Lokesh Maru:** Sir out of the 850 crore installed in India um does that mean like we have been always been maintaining between 50 to 60% market share. Does that mean we have installed 50 to 60% of this 850 crores overall in India.

**Shishir Joshipura:** That is correct.

**Lokesh Maru:** Thank you. So, sir my last question and I will join back the queue. So, last quarter has definitely been volatile, like you had already mentioned. So, just if you can, through some indicative gross margins for projects, we would have signed this quarter till date for April and May till date. So, we had somewhere around 37% gross margins for last quarter, anything, any number that you can indicate for recent contracts that we have seen.

**Shishir Joshipura:** Okay, that that is something that I will have to disappoint you because we will not be able to give that number out.

**Moderator:** Thank you. The next question is from the line of Amish Kanani from JM Financial. Please go ahead.

**Amish Kanani:** Sir my question is, I understand, you do not want to guide us on the quantum of margin both maybe gross margin or EBITDA margin, but, for understanding of where we are headed, if you can give us some sense of what will be our ideal target when things normalizes in terms of, we have now on a quarterly basis, our gross margins have been moving from 40 to 37% and also, EBITDA margin in that context, we have been able to do on an annual basis, a reasonable job, and it is dipped, but it is not as much as gross margin. So, the question sir, is at a steady state basis is it possible to give us some sense of where we would like to and our operation has increased in terms of operating leverage is kicking in. So, if you can give us some sense of where we would like to stabilize either say, gross margin or EBITDA margin, say six or nine months down the line or maybe an annual basis, that would be helpful. So, that's question number one. In that context, sir, I saw employee costs have not increased as much and because of which, at least our EBITDA margin that have been support it? So, if you can give us some sense there,

because, we understand in that space, maybe that could be some inflation there as well. So, if you can give us some sense there.

**Sachin Raole:**

Okay. So, Amish, your question that way is very, very idealistic, that if the situation is ideal, then what will happen? So, let me just try to figure this out. We have always maintained that our gross margin should have been better than what we have reported for reason, of course, we have seen the dip in, because of the raw material prices of the commodity prices the way in which they behaved. To some extent, I have already said that, over a period of next two quarters, we will see some kind of normalcy returning to the commodity prices and helping us on the gross margin, another aspect which you have always maintained that the volume is going to give us some kind of leverage. To some extent, you have also answered that question when we said that employee cost has not gone up in tandem with the top line growth which we had seen. So, two aspects are going to play according to us one the commodity prices coming to some kind of a normalcy. Second, the way in which we have seen the leverage is going to kick in is going to give us benefit on the EBITDA margin. What the EBITDA margin will be in the absolute term, unfortunately from a guidance point of view, we have a practice of not giving those kinds of numbers. So, I will not be able to spill out the number but we will be able to see in a normalized scenario of very different kinds of an EBITDA margin basis. definitely let me tell you yes it will be in a double digit.

**Amish Kanani:**

Okay, sir that helps and sir in terms of orderbook pipeline. We have done a wonderful job in getting new orders and you did mention there was some disappointment at least on the international side on the Europe side. So, if you can give us some sense of how is the outlook on the order book pipeline and actual iteration, because last two quarters have been a decent run rate of Rs. 900 to Rs. 1000 crore. Our old run rate was more like 500-700 crores annually and some sense of pipeline, if you can give us some sense.

**Shishir Joshipura:**

Amish so, let me start in the whole year, we had a 37% growth in the international business and, you know, I mean, I can share with you that maybe we are fortunate in India, we have not seen some of the economies and impact of pandemic on those and go to some of these places they took much longer and I said in the past as well that different economies have a different challenge to overcome, because of the way the pandemic impacted everybody, globally. So, some markets have opened later some have opened up earlier. We are among the earlier parts, but maybe there are lots of parts of the world where markets have opened later that's number one, and they are opening now, which is important. Number two, as I mentioned in my opening remarks, we are seeing a movement on the Biofuels side, a lot of economies are clearly making strategies to make biofuels and or low carbon intensity of operation for their economies are a priority and biofuels have a very important role to play there, which is what we will see unfold as we go forward. This is second part. Third is the war in Europe has definitely put a bit of a, what I would call is a shift of timeline because of this war that broke out on the front, it obviously meant that the risk profile of the funding etc changed. So, it is our estimate that this is pushed projects at least on advanced biofuels by at least six months from funding, they may

be or they will recover in the time to come, but right now we see a clear six months shift that is happening on that front as well, not just the projects that have gone away or anything like that, it is just that the whole process gets delayed because the risk profile analysis of that completely changes. From that perspective, I think we are looking at different dimensions here. In terms of what is happening internationally. On the other hand, as I was mentioning, we are seeing a revival of economies. So, Brazil is beginning to open up, we are going to commission our first plant there by end of this year, that will change a lot of dimensions for us. I was talking about United States where the focus will shift to reducing operations to low carbon intensity. So, many of these positives will start building up international as we travel through the year and I am very sure that International Businesses We are just beginning to see the return of international business. So, in a year, when there was difficult times ahead, we were able to show a 37% growth on our order book, I am sure that we will look at even more positive time. There is a big focus on clean tech, green tech, green hydrogen, so all of these are positive drivers for our business in the International market.

**Amish Kanani:** And then in terms of pipeline, domestic pipeline last year this time versus time, is it gone up significantly looks similar and in terms of major assuming that, our market share remains same how do you see our pipeline at this point in time versus the last time.

**Shishir Joshipura:** Just continues to be robust, absolutely no reason to be alarmed on that front. In fact, it continues to build positively from where it was and I think we will continue to see a traction.

**Moderator:** Thank you. Ladies and gentlemen. We have the next question from the line of Jayesh Shah from Capital PMS. Please go ahead.

**Jayesh Shah:** I just had a broader question on what are the developments if you can share in the RCM division and also if you can put some light on what exactly is happening in the country or even globally in terms of using hydrogen as a fuel, like where as a company Praj playing a role in helping to get hydrogen into mainstream.

**Shishir Joshipura:** Okay, so the whole. So, there are you see this hydrogen being mentioned with some color prefixes, gray hydrogen, blue hydrogen, and then there is green hydrogen and things like that. Color indicates the source of hydrogen actually, or what what's happening to it right. So, the push is for green hydrogen globally and so, there are two things, one is the refineries themselves are big consumers of hydrogen and they need large quantities of hydrogen and in order to meet their demands, currently favored and tested technologies about electrolyzers using water and neutralizers a combination so that and use renewable source of energy for power generation like solar or wind and that allows you to create green hydrogen. When these projects are put up, it also has what I would call as a need for the whole plant to be set up where you can make this process happen. So, we call it the clean tech and the green tech space where our CPES businesses is a very major role to play because they are, aligning themselves with several leaders in the world in this business and as engineering and manufacturing partner

for these projects for because they need large amount of motorized plants, etc. So, that's one part of business. The second part is the green hydrogen will also have a dimension around hydrogen to be produced from biomass resource and that still work under development. Three, right now, we do not see what I would call as a need for not a need, but an ecosystem in place for hydrogen to be used as a transportation fuel not yet it is still under experimental stages, but on the industrial sides of the use obviously, there are clearly established processes where hydrogen is being used. So, that is still work in progress, as far as utility is concerned, in form of as a transportation fuel for hydrogen. I hope that I answered your question. Was there another part of the question before this.

**Jayesh Shah:** Yes is there any new development is happening in the RCM division?

**Shishir Joshipura:** So, I think as Sachin mentioned in his remarks that we have two important programs that have now have now passed the bench scale development and they will go to pilot scale now and that is something that we will get this year, we will talk about it when the time comes to commercialization, is progressing as we had planned, it has not reach to commercialization stage yet, but when it reaches, you will hear about it.

**Moderator:** Thank you. The next question is from the line of Prathamesh Sawant from Axis Securities. Please go ahead.

**Prathamesh Sawant:** My question is regarding the recent announcement or government regarding the capping of this sugar exports. Do you see the impact of this news on your company per se?

**Shishir Joshipura:** Yes. So, what is actually being said, is do not produce sugar for export and this is fundamentally the message according to me and divert the sugar to production of biofuels or ethanol in this case? So, a lot more sugar is now available as feedstock. So, I think that is the key question, because when at some stage in time, we will also be asking question on thing what is the feedstock availability, but this makes available a large quantity of sugary feedstock for conversion to ethanol and I think that's a very positive move, because we clearly see that as a sign from the government to the industry that they need to move their product mix in favor of ethanol, which is also good for the industry, by the way, because if you see the results of any of these sugar companies, as they have been announcing, for a much lower portion as a percentage of revenue, the contribution to the bottom line is much higher, disproportionately higher from ethanol to their businesses, I'm sure they are also happy customers.

**Prathamesh Sawant:** Okay. So, can it be interpreted the other way, whether a government wants it for Food Protection, as in the idea for this announcement food protection for the domestic consumers. So, later, do you see any fear of food versus fuel debate coming ahead from this again.

**Shishir Joshipura:** No because if you look at sugar we already have access to the production so it is not that this is deficient and therefore it needs to be met. This already excess after what is being exported

there is still excess sugar left so we are in a very different situation as far as sugar production is concerned. I clearly see I am not here to contest what government is thinking or what I am saying is what is the likely implication of this action? I am sure they have their own reasons to announce what they announced, but we read this as this kind of impact coming up, it is a very positive impact for us.

**Prathamesh Sawant:** Okay, sir my second question is regarding the CBG front, any development on it given that now you are going to go with some government body to talk against to let the government decision that they had withdrawn for the subsidy, any development on that and given that the CBG prices have been revised? What is the kind of IRR and are you seeing any new interest for some CBG front?

**Shishir Joshipura:** Yes, sir this is a very positive development that now the CBG prices have been revised, and that they are indexed to CNG prices now, which is very positive development. I still believe that there is a lot of scope for improvement of viability of CBG projects, because of the simple fact that my logic is why should a low carbon higher efficiency, higher calorific value sells for a price less than is what I would call the high carbon local value low calorific value counterpart, there is no logic and from that perspective, I think CBG has a lot more scope available for price adjustments. But having said that, there is no change as far as subsidies are concerned, but the move right now to industry to CNG price itself is very positive. We are already beginning to see some inquiries now emerging where people are saying, Okay, we want to consider this favorably.

**Prathamesh Sawant:** And lastly sir, is there any seasonality in our order book as in like Q4 will have usually have a larger order book. So, can the large order book new orders this quarter? Can you explained with that or is it just that we are having higher inquiries in general and rural businesses booming in general?

**Shishir Joshipura:** I would not necessarily put Quarter 4 to be high quarter there is some seasonality in our business. But that's not the way we see it. In fact, I use the word with great caution. The democratization of the feedstocks that has taken place on the ethanol production actually has evened out this seasonality which earlier was pretty sugar season based, which of course is a seasonal crop, but with this starchy feedstock coming in, there is no seasonality. So, which is actually a good thing so much less is seasonality dimension all that is still there to some extent, but not to a great extent.

**Prathamesh Sawant:** We can expect this kind of a new order book growth in the coming quarters, hopefully.

**Shishir Joshipura:** As they say in Hindi "aapke muh main ghee shakkar"

**Moderator:** Thank you. The next question is from the line of Bharat Seth from Quest Investment Advisors. Please go ahead.

**Bharat Seth:** Sir on this CBG plant how many plants so far we have installed and how we were expecting say success of new order or based on the plant which we have set up. So, how those are running and if you can give some color and second question on in your initial remark, you said that we are working on the supply after plant setup maintenance as well as carbon capture so on more specific on carbon capture. So, what kind of technology are we using? Is it we are in house or outsource carbon capture technology?

**Shishir Joshipura:** So, Bharat Bhai I had mentioned that we are starting a focus. We have been very focused on the capital side of our customers businesses, but we realized and we did have a business unit or an offering in the market, which was on the revenue side, but we are now considering that as a focus business unit. To start off to keep solutions offering to customers as they start operating that plant so that could come in form of performance enhances. You know that the fermentation process actually releases a lot of biogenic CO2. So, we are also offering customer solutions to capture the CO2 using our technology. So, because that is biogenic in the sense that is a clean CO2 and then there are applications on food grade and medical grade and all the industrial grade. So, those can be further modified. We do have our own technology for purpose. So, that is how we are doing this. On the CBG front that you asked in the question. We have commissioned 2 plants completely. They are fully running gas is being sold and retail outlets of respective OMCs that have got tied up there. We will be commissioning the rice straw plant in about three months plants I think that is a big event as well, because there is no other plant like that what we will be commissioning. So, that will happen that is the third one and very important building from there, as I said we had four plants under commissioning, the fourth one is also going to commissioning next quarter. So, we will have on press mud, on rice straw as well as on industrial waste all three big sources of organic waste covered, which will be then producing the gas from these sources. We are expecting that at the back of this new, as I have already answered in the previous question, the back of the current new pricing norms we are expecting increase what I would call as interest from the customers, including from a few sugar mills to say how they go about in setting up the new CBG capacity. But there is a lot of scope, as I mentioned earlier that CBG actually should not be a prized fuel and not a laggard fuel but i think we are moving in the right direction and over period of time I am sure we will overcome the defect as well.

**Bharat Seth:** On any further update or new order I mean implementation or order on this jet fuel.

**Shishir Joshipura:** So, as you know that the world is beginning to see signing of the aviation fuel contracts, especially by some of the global airlines for some initial volumes. That is a first step that is required for production of sustainable aviation fuel. It is just beginning to build as a momentum and maybe when we speak in next quarter, we will have something more concrete to talk about. The technology is there, the need is there. Now we are going to this contracting phase for the airline to buy with OMCs and probably the next would be then the technology and investments around it that will happen. That is the way we see the development happening.

**Bharat Seth:** So, with your permission, can I take one more question?

**Shishir Joshipura:** Yes please.

**Bharat Seth:** One is under international outlook, I mean for this bio energy and second on the brewery side. Sir outlook on that because I mean breweries we were seeing I mean last few years is relatively growth is slow paced. So, how now this is once again in post COVID what the brewery's business looks like?

**Shishir Joshipura:** You are beginning to see some, as I was mentioning, in my remarks as well that with this summer specially we know some of our customers are actually facing a problem of shortage of supplies. So, that's a good sign. So, I think beer consumption is beginning to pick up pick back, which is a good, they are also diversifying to some of the other products like non-alcoholic beer, zero alcohol beer and things like that. So, we have also more flavored beers, so we will see these markets taking positive track as we move forward during the year. Right now the capacities that were there that were being put to use have all come to play, but I am sure that looking at the current market response, they will all start to look at planning capacity additions either in the form of a green or brownfield and we will see that traction build up on the brewery side. The international business again, as I said earlier, as well. Several countries not only India, but several countries have realized the importance of actions that they need to do as economies to reduce the climate change impact on their respective economies, and therefore the CO2 combat and biofuels will have a very, very important role to play. We are seeing some good programs, building on a traction, we have augmented our resources in Europe and North America and South America to actually go and address these emerging needs and I am sure that we will see positive interaction develop on that as well.

**Moderator:** Thank you. The next question from the line of Swarnashish Chatterjee from Aster Capital. Please go ahead.

**Swarnashish Chatterjee:** My first question is today, most of our business comes from bioenergy especially from the ethanol business so maybe after four five years when India reaches its potential of 20% blending then what is your next cashflow opportunity with your international business or is there any progress in diesel blending, **ATS** blending ? What will be our future for five years?

**Shishir Joshipura:** Swanashish that is a great question and yes, E20 program will run its course and come to an end in 2025. However, that is not the end of it. Let me just do two or three pointers. Number one Brazil, which is the leader in this business, and in this whole sphere, and they have a default blending of 27% and not 20, that is number one. So, why should we not have 27? That's my question. Second is, currently, we are only blending this at petrol level, maybe and we are working on a program as I said in the past on diesel blending as well. So, that's the second one. Third we have heard about the Honorable Minister speaking about the fact that India needs to have flex fuel vehicles and if flex fuel vehicles come into play, then you can run it on 100%

ethanol as well. So, that is a third rule that will come into play. So, there are many applications, you know, the communication towers that run today on diesel genset that they need not run on that they can go to Ethanol gensets and so there are many of these applications that will start to develop as we go. But the key driver is that the focus needs to shift to low carbon intensity operations and I think that is what all the corporates are now begin to think about, because this is a very, very important step forward. So, that is what will drive, that is number one. Number two, as I was mentioning, we are seeing very good traction building in international business in several economies around reducing the carbon intensity in their operations and amongst many other solutions, biofuels have an important role to play. Quality as a regulation ground as I said the war has pushed things for six months. So, we will have to see how we progress forward on this. But as I see it and then ethanol becomes a basic building block for sustainable aviation fuel. It is in the form of isobutanol. So, there are many other equations that we talked about RCM so ethanol now become like a basic brick. So, actually, we go one step before Ethanol gets formed it is the sugars that we separate out from the different feedstocks, and that is where you will it start to diversify from that stage, today it diversified to ethanol. I think tomorrow we will see it diversify to different sets of chemicals. We will see diversify to aviation fuels and so on. So, a very, very vast field is expected to open up at the back of the world need agreement and determination to move to a low carbon future.

**Moderator:** Thank you. The next question is from the line of Sagar Kapadia from Anvil Share Stock Broking. Please go ahead.

**Sagar Kapadia:** I would like to know at what is our operating utilization levels, because earlier three years back, we were told our capacity utilization was 60%. Currently with such revenue, I think we will reach through 90-95%. So, what is that and what will be your CAPEX plans going ahead?

**Shishir Joshipura:** Great question, Sagar. So, what we did over the last two to three years, is that we actually sat down and we said, how are we going to execute and that is what I was saying at the beginning of my remarks as well that we had a very strong focus on execution because we have a strong order book, and we need to deliver to our customers on time. So, we have debottlenecked, like several of our capacities, we have deployed different strategies and they have all worked out well for us not to actually go ahead and commit ourselves to large capital expense and without that itself, we have been able to expand our capacities, we have debottlenecked some of our operations, we have developed a very, very strong supplier base, which is helping us to our vendor base that is helping us and this vendor base is now located closer to our customers. So, we are looking at from a very different perspective. How do I, in a manner of speaking, we are thinking differently to say how do I make sure that my footprint of CO2 is least is minimized. So, there are many, many dimensions on which we are working, which is helping us to overcome this problem. So, as I see it, we do not see, our capacity build also have to happen on the engineering side of operations, because that is also a critical people that we need and that is something that we have consciously built over a period of time, but we have also used digitalization in a big way. We are completely digitalizing our operations now. So, that our

speed of throughput time decreases and our speed of execution increases, our productivity goes up. So, we are working on several levers to ensure that our execution pipeline is well built and I am not losing an iota of sleep over our capability to execute and if you can see from the last quarter itself, if you see what we have delivered in the last quarter of this year, and you just multiply that by four times we are steady in a very uh what I would call a safe harbors.

**Sagar Kapadia:**

Yes sir any plans for further CAPEX, we might be at the 90-95% currently.

**Shishir Joshipura:**

Do not worry about the capacity so much as I said that we have debottleneck it completely so we will be in a position and two things that I was mentioning as I link it to answer that I gave earlier. So, the seasonality of the business has come down, that allows us to more evenly spread out. Earlier, if you see our previous year results our first quarter will be very small and then you start gradually increasing. Now the four quarters are more or less similar levels not exactly same, but more or less the similar level and that is what we expect. I am not saying it will be the same. It is be growing, but not with such a wide disparity between the fourth and the first quarter. So, that is helping us to use our assets very well. So, we have as Sachin was telling me some numbers around our asset utilization. He said from four to eight so our asset turnover is now from 4 to 8 so you can imagine ..

**Moderator:**

Thank you. The next question is from the line of Vipul Sanghvi from Systematix. Please go ahead.

**Vipul Sanghvi:**

Sir my question was around in the earlier question, one of the gentlemen said that total 20,000 kilo liters per day of distillation would be required to reach the 20% blending target. So, what kind of capacity expansion announcements, you will see that that have already been made and do you see a situation where we will overshoot this capacity expansion target itself? I am just trying to understand what is going to be the supply side of this opportunity.

**Shishir Joshipura:**

Right now, we do not have enough capacity. I mean, we can consume much more than what is being talked about, I think two things have to happen and let me at some stage in time, and maybe by the end of next year, and I think that dialogue is already commenced between the government and the automotive industry to see how the vehicles as we go forward will get, forward sort of aligned to the need for this high blending ratios. But what I am doing understand is that we will have default E10, across the country, starting October of this year. So, if that is the case, that itself becomes the basic platform on which to build this particular volume. In terms of building further, I think, very clearly the path is clear. We see robust inquiry, I had said that earlier as well. A robust pipeline of inquiry, there are lots of companies, the freeing of the feed stock is actually inviting lot more companies to come and step in because earlier the sugary feed stocks obviously the feed stock was controlled by the sugar company so they would obviously setting up their own capacities. But now, many other corporates and companies are stepping forward. There are pharma companies, there are entrepreneurs, individual entrepreneurs, there are commodity manufacturers. There are many guys were

stepping into manufacture of ethanol because of feedstock configure. We continue to see a very positive traction on that.

**Vipul Sanghvi:**

Sir in case you do not see challenge as far as the availability of the feedstocks for some of standalone distilleries, you think you will be able to get enough feedstock.

**Shishir Joshipura:**

Two things. One is we were talking about this ban on sugar export for some time, so that itself will create a what I would call as a need for a new feedstock of course. Although it's not new, It is already existing but an additional quantity of feedstock for ethanol production and that site also we do not have problem and as I was mentioning that when we commissioned within six months' time you will hear it will commission the first lignocellulosic product in the world based on rice straw. Once that is that goes on steam that will open up further feedstock. So feedstock which should not be so much of a worry for us at least not in foreseeable future.

**Moderator:**

Thank you. The next question is from the line of Lokesh Maru from Nippon India AMC. Please go ahead.

**Lokesh Maru:**

Thanks for taking my question. My question is more on CBG. Sir we have the technology in place, we have the pricing in place. What I believe I heard was our challenge is actually aggregating the straws, aggregating the stubble, getting it to the plant in location right. So, if India is eyeing an opportunity or somewhere around 5000 CBG plant across the country, there has to be some organized player or organized way in which transported. So, sir your outlook or your view insight on how this ecosystem is going to evolve going forward. That is I believe CBG is one of the biggest opportunities for us going forward right, if that materializes

**Shishir Joshipura:**

Yes, your observation is spot on and very clearly the supply chains will have to be established for feeding of this rice straw which currently gets burnt on the field standing. To collect them aggregate them and supply to the nearby CBG plant but I am strong and there are platforms that have now emerged uh which are facilitating buying and selling of biomass on this platform. They are making the producer and the customer meet on the platform in a very open and transparent fashion so there are already platforms in place. There are policies from certain state governments which are beginning to establish a mundi equivalent of mechanism or aggregation of biomass and supply. I think as the market starts to develop, we will definitely see. There is already a sort of aggregation in place, because there are lots of biomass based power plants and steam boilers in industries are using it. So, there is some sort of aggregation that is already available. So, I am sure that those experiences will be used and handy to when we expand it to a much bigger scale. So, that is something that will happen also on some feedstock like for example, a press mud from sugar mill the or the gas from sugar mill and the supply chains are already established and local. So, in that sense, there is no problem. So, it is all aligning in the right direction, its what I would say.

**Lokesh Maru:** Like you said is baggas and press mud are also a feed stock. As ecosystem evolves, things supply side is, you know, addressed over a period of time. So, do you think sugar players are going to be the first adopters of CBG evacuations they have this input, the feedstock for the **CBG** planks? How are you seeing their reaction when you go to them? What are their reactions on you putting up a plant like this, which might utilize the waste they produce?

**Shishir Joshipura:** Lokesh I think I was listening to one of the commentaries of one of the leading customers of ours and they did say that over a period of time they see themselves transforming to a Multi Product Energy Product Company and not merely a sugar production company and think that probably tells you the way the thinking is also evolving in emerging within the sugar mill segment. So, I think very clearly as we move forward and all these things, sustainable aviation fuel whether it is RCM, whether it is the iteration of ethanol so we will see a lot more what I would call as focus coming in on from nearly a single product, I am sure sugar industries done well to transit themselves from only sugar to sugar plus power, sugar plus ethanol and all I am seeing the next step will be CBG and then there will be another next day manure, also, there will be many, many things that will help them to actually plan it because they will have to become a multi, they are realizing the opportunity of a multi-product. The technology will help them they can behave the whatever, they are the natural owners of some of these things. So, we will see, I personally believe that we will enter an era of very positive and constructive development in this segment.

**Lokesh Maru:** Wonderful. Sir my last question is on unit economics like CBG plant, what kind of revenue per plant like you have installed 2 already and 2 are in the pipeline? So, what kind of phase or revenues are you looking at in this plant which are already installed? yes sir, I was saying from unit economics point of view, what kinds of realizations are revenue per plant, like you have already installed two and two are into the pipeline, so what kind of revenues are you looking at so, each plant.

**Sachin Raole:** Lokesh this is completely based on the capacity of a plant and on the scope which we will be undertaking and naturally the feedstock because the if the feedstock is different, the project cost will be deferring as compared to the feedstock. So, it will range somewhere between depending on the scope it will be taking can range between Rs. 30 crores and it can go up to Rs. 100-120 crores depending on the capacity and the feedstock. So, the range is very wide, because of the scope and the capacity of the plant and the feedstock. So, there are three parameters

**Lokesh Maru:** Sure sir so that Indicatively that gives us a similar opportunity like Ethanol the order book that we are seeing currently, even this CBG looks quite equivalent, is that the fair to assume?

**Sachin Raole:** Yes, CBG definitely, as Shishir was saying has a very bright promise in that sense only thing the entire ecosystem is still in the phase of getting established. We believe that the way in which the work is going on the ground, we will see a development happening in that front, and albeit

a slow before a couple of quarters, but we will see a picking up in this kind of in this segment going forward.

**Moderator:** Thank you. The next question is from the line of Saket Kapoor from Kapoor & Company. Please go ahead.

**Saket Kapoor:** Firstly, sir as you have told earlier also that our country deciding for a hybrid model of fuel would be more than going for totally or three EV parts. So, in your consultation with the Ministry and all what is the thought process currently, where are we in terms of this blending part giving more thrust to hybrid model for automobiles, so that the ecosystem there also continues, they were not destroyed, if they go into the EV part, then the complete section of ancillaries go out of market as being explained. So, how conducive, do you think this hybrid model could be acceptable and thereby giving us as a company an opportunity to supply this biofuel and supporting biofuels in different forms sir and on the aviation fuel part the sustainable aviation fuel so what kind of testing flying hours have been done currently and what kind of feedback they have

**Sachin Raole:** On the SAF front, let me just take that question of your SAF. The last part of your set of questions. We had already mentioned that the testing is already done on the SAF which is produced by the Indian Army, rather Air Force and the testing certificate issued by them stating that it is fit for flying the aircraft so that testing phase has already been done. Just to give a clarification on the SAF front. The other part of your question related to future of a biofuel and what will happen in the light of EV coming up there.

**Shishir Joshipura:** The way to think about is like this. So, I think this is still an evolving phase for what will be the future of mobility. So, is the future of mobility going to be electric? Is it going to be based on IC engines? Or is there a third technology, which will become the hybrid that we are talking about in terms of so high carbon fuel, low carbon fuel, and no carbon fuel? Okay, that's the transition that we see hydrogen with no carbon fuels. Now, there are some other challenges. Although everybody's right now we are all excited about hydrogen because hydrogen poses its own challenges in terms of, we need very high-pressure storage, and that increases the weight of vehicle and things like that. The whole setup that is required to dispense hydrogen does not exist today. The vehicles that use addresses do not exist today. So, there are a very different set of challenges to be over and to overcome all these, there is already an existing fuel fleet of vehicles on the road, which are not fit for using hydrogen. So, a whole host of issues that need to be overcome on the hydrogen side the thinking right now is that maybe for long distance haul, long haul travel, especially commercial vehicles, buses, these kinds of things. One can look at dispensation from a point of purchase, but maybe for cars, etc, there will be a technology that will come through which will be what onboard generation of hydrogen, using ethanol in a fuel cell, and then drive through to fuel cell to electric motor. So, it's a vast subject and it is still unfolding, we will have to see how the technology goes. But that's still 10 years away into the future.

**Saket Kapoor:** Correct and congratulations also for this celebrating 75 years of independence, also very unique concept in terms of this sharing this delight with your investors. Only one of its kind that we have not had any corporate coming up with any special dividend on celebrating the independent 75 years of Amrit Mahotsav so unique ideas and support sharing you're your investors. Sir in the cash flow part you have mentioned about investment in debentures and bonds to the tune of Rs. 25.41 crores. So, what are the yields on it and where are these funds invested money in AAA papers, in private, in government, where it is?

**Shishir Joshipura:** Okay, so the nomenclature is debenture, bonds. because that is the standard nomenclature, as a policy investment policy, we do not invest into corporate bonds at all. So, all the investment happens only in the fixed deposits or the mutual fund or the bonds issued by the banks. So, these are the only three segments where investment goes and we ensure that our investment is only in AAA rated company. So, we might accept the lower return, but not on the quality of a paper.

**Saket Kapoor:** A very small point sir we belong to the capital goods industry and so CAPEX is the word that is familiar to our growth. We may be in one of the verticals, but it is all the ecosystem that gets charged up when we start revolving correctly there. So, what is the pulse on grounds are currently in terms of the disruption because of these commodity prices, the war on one hand, and the supply chain disruptions and the semiconductor issue, the various parts of the story, but how do managements like PraJ and others who are to be having the ear on ground, taking into account the CAPEX cycle that this country is currently moving into? Where are we entered? Whether the thrust the government has given for the CAPEX cycle, has it started gaining momentum or has it received from jolt because of these external factors, your thought process on this?

**Shishir Joshipura:** Saketji it is a mixed bag in the sense, of course, our order book shows that the CAPEX formation is taking place, at least in our segment, our growing order book is a testimony to that and the policy environment that has enabled that is also very, very visible. So, that is the positive part, but as, as you rightly saying, some markets, so for example, pandemic had a different recovery rates for different economies, the European war has created different set of dimensions for a set of economies, but though not all, the high inflation may take some toll in couple of other economies so I don't think there's a commonly applicable factor all across, but each of them will have to find their own ways and means, but what is very important is that in all this, I think one good thing that has happened is literally the entire global leadership across cutting across different political spectrums, geographical spectrums, nationalities has a common agreement that we cannot continue in our future with this high in carbon intensity energy future that does not exist for anybody. Everybody says, yes, we should move to what lever electric vehicles, solar power generation, wind power generation, biofuels, hydrogen, those are solution forms. But definitely, all major economies in the world, even small economies are committed to make that happen and I think that is the positive part as I see it and that will drive the investment in

our business. Some other businesses, which are run of the mill or normal kind of CAPEX, they may have a different perspective on this, but this is how I see it.

**Saket Kapoor:** Yeah, thank you sir and we hope that our execution cycle will also gain traction going forward, that is answered earlier, will not be a truncated one.

**Moderator:** Thank you. The next question is from the line of Akshay Kothari from Envision capital, we request you to please restrict your questions to two per participant.

**Akshay Kothari:** Okay, thanks a lot. Sir I wanted to know regarding the tax benefits, so are we enjoying any tax benefit in the deduction in the form of 80JJA.

**Shishir Joshipura:** So, right now, from this year, we have shifted to the new tax regime, where we are going to pay tax at the rate of 22% effective tax rate will be somewhere around 25%. So, technically, under new tax regime, there are no benefits which are available.

**Akshay Kothari:** Okay and sir there was a notification in February around for biomass and bio briquettes and power plants were mandated to use 5% of their total input as biomass bio briquette. So, does it impact us in a positive way or? There was a recent notification wherein, you know, the biomass and bio briquettes, the agricultural waste, it is converted into bio briquettes, and then it is given to power plants. So, they were told to soar around 5% of their total input as a mandatory provision. So, it was a government notification. So, are we positively impacted by it or we're not into it?

**Shishir Joshipura:** We have nothing to do with that.

**Moderator:** Thank you. The next question is from the line of Ravi Naredi from Naredi Investment. Please go ahead.

**Ravi Naredi:** Ethanol blending target by 25-26 to 20% given by government, please give detail answer where we stand and whether is it possible and do we have sufficient raw material like sugarcane, maize and rice to produce the same and basic infrastructure of keeping this all the storage of ethanol capacity is available with this company. That is my question sir.

**Shishir Joshipura:** So, Mr. Ravi, thank you for the question. I will say in short answer, yes, we are very confident that we will reach the target of 20% in 25-26, the current pace of capacity formation is indicating that we will be able to achieve the target. That's number one. Number two, the infrastructure or storage asset, this is a great question.. already exists. The oil marketing companies have actually made plans for making sure that across India, this kind of opportunity is made available and I will just point it to a very small fact that, since this is a blending program, the volume will go to replace an existing crude oil volume crude oil base petrol volume, right. So, in overall volume sales is not going to increase any net volume, except that we have to keep

providing for the growth in the economy and I am sure that all marketing companies are already having dialogue with them and we understand that they were very clear roadmap of how they will do this, and how they will go about doing this. The roadmap for blending has been very detailed in detail worked out at the highest think tank level ever in the government in the country, NitiAayog, the Ministry of Petroleum and Natural Gas, the producers, the technology suppliers, all of us have been involved in a dialogue to make sure that this becomes a very, very successful program and I have been participating in the industry association and I have been participating that in different capacities as from CII etc and I can only share with you that as a country, we are doing a very good job of ensuring that we fall short of this time.

**Ravi Naredi:** Very nice sir.

**Moderator:** Thank you. The next question is from the line of from the line of Haresh Hinduja from SVS Securities. Please go ahead.

**Haresh Hinduja:** Sir, can you explain to me that in detail about the CBG? I mean, last year, it was a very big buzz that the 5000 project will come up in future and can you just also quantify what was the incentive and now with this revised price is there a more beneficial to set up a project or not and can you just explain the number of inquiries we have received after this announcement? Thank you.

**Shishir Joshipura:** So, Haresh ji very good question it says 5000 was the overall program that the government announced under we would like to see 5000 projects being set up. So, that's the goal at a country level obviously and then before now the policy the policy had so we have as I was mentioning to you we have built some. We are building for project two of them are commissioned and handed over. There are other two, which are in different stages of construction. There are some others also being built by some of our other friends on the technology side. So, it's an ecosystem in making as I would call it, this will be nowhere near 5000 plants right now, nowhere near that. But this new announcement on the policy because in between the subsidy was withdrawn, the price was too low at all levels. So, the projects are not viable. But I think with the new price level, it will start to move in the viable territory, I still believe there is a lot of scope for improvement in the pricing front on the CBG side and we will see the attraction built up and we are also seeing just about begin to see the interest coming back in terms of people saying hey, we want to evaluate whether with this new structure of pricing, right makes more sense and I am sure it does make sense for them to go ahead and start considering the project. So, we will see the other part that I was talking about the transition of the sugar sector from just being a sugar producer to multi product complexes will also help this transition. So, all in all going in the right direction still not there and I mentioned that in my call about six months ago that we are till about 18 months ago from this opportunity actually taking place, taking shape in a good way and I believe that is the timeline that we would look for.

**Moderator:** Thank you. We'll move to the next question from the line of Naysar Parikh from Native capital. Please go ahead.

**Naysar Parikh:** Sir my question is that we have obviously done amazing on the order moved from around 600 crores 700 crores in a couple of quarters back to 1100 crores. My question is that how sustainable this is do you think we have reached some kind of peak for maybe a couple of quarters where the order book is concerned or do you see more growth even from this number?

**Shishir Joshipura:** I was mentioning that we were able to see how the different external factors play out, you know, I mean, in terms of opportunity, they start to open up broadly speaking, we believe that there will be a new we have not found the new players or anything like that this will continue to build in momentum India. Now, let us say, the policy changes to E27 or flexible vehicles that are sort of introduced the digital bending program goes up, then that will further give a lift to capacity build program. So, we will have to see how the, because the biofuels world over are impacted by the policy directions that governments provide and so that is a key factor and so that's one, two, already in several markets, as I was mentioning, the focus to shift to a low carbon intensity energy mix is going to play out in a constructive fashion. So, there are indicators that we have not reached any plateau yet and will continue to build the momentum from here.

**Naysar Parikh:** Right, actually my question was more near term. So, if you look at it today, sugar is only 1/3 now, and 2/3 I think is shifted to grain based, if that is correct. So, you know, all the grain-based side, is it fair to say that, on the sugar side, our order intake will keep reducing and on the grain sidewhat kind of industries are you seeing putting up capacity, really, for this ethanol production in the next few quarters?

**Shishir Joshipura:** Even the sugar side, as we mentioned earlier, because of this sugar export ban entering I am sure a lot more capacity will become available for ethanol production so sugar mill will also come back to the fray. That is number one. Number two is in terms of the people, as I said, there are pharma companies, there are other commodity companies, there are energy companies, there are funds and it is a very different set of people who are now setting up starch based ethanol, because that is the feedstock is freely available. So, that is the the key driver. The one third two thirds we are saying that all the new capacity that is now coming in will come on the starch because obviously, there are no limitation on the feedstock there. But with this announcement on the sugar ban, we actually see sugar also coming back in a big way to participate in some capacity formation, compared to it is stored on a little bit. So, it's a relative term. It's not that sugar had stopped. It's just that starch was picking up from a lower base. So, from that perspective, obviously, they are building more capacity as being built around starchy feedstock

**Moderator:** Thank you we will now move to the next question from the line of Bharti Jain from Suyash Advisors. Please go ahead.

**Bharti Jain:** One question on the government's thinking on feedstock availability, have been your conversation has there been any reference to any genetically modified corn or any of these other sources of feedstock to create a parallel supply situation so that you do not have this kind of complexity?

**Shishir Joshipura:** Yeah. So, I think Bharti this is a great question and currently, well, that question does not exist in India for food versus fuel, because we are looking at them as food crops and damaged grains and excessive grains and things like that, but there are markets where the concept of energy crops is very much present and diversifying the feedstock is a very important step in the policy of any country's biofuel policy and I think that is what government is intending to say when it releases the recent cabinet approvals on what needs to be happening. So, we will see much more broad basing of the feedstock today it is restricted to a ticket to a few. About two years ago, it was only one free stock, it moved to three and then it has moved to many. So, we will see change, we also see lignocellulosic feedstock in terms of the straws and the grass is also walking once this plant is commissioned, that I was talking about. So, we will see a new kind of regime in which different feedstocks very wide variety of feedstocks will probably start walking in as the feedstock and depending on the local factors, they could be chosen one over another. We do not foresee a problem on the feedstock side right now.

**Bharti Jain:** Correct. I was only asking because the challenges related to volatility may be somewhat reduced if you have a dedicated supply source versus, you create a parallel sugarcane kind of thing. That's the point I was trying to understand.

**Shishir Joshipura:** So, there are countries that have gone for energy crops, I am sure at some moment we will see that happen as well.

**Moderator:** Thank you. We'll move to the next question from the line of Krishna from Niveshay. Please go ahead.

**Krishna:** Sir my question is on the ethanol demand side, E20. So, currently only all the vehicles are capable for E10 as per our understanding and for E20, the new vehicles sold only would be capable for the E20 fuels. So, how do you see the demand side of ethanol? Could it be that the projections are better too high towards the demand side?

**Shishir Joshipura:** It is a little long winded answer, Krishna right now I am trying to be brief in interest time. So, if you use the current vehicles at higher than E 10, then you do not get all the benefits that you should get out of using ethanol. With newly designed vehicle on E20 we will get. There are some changes required in the toolline components specialty gaskets and those are easy changes to be made, but you may not get full benefit into an existing vehicle that you would

get into an E20 designed vehicle if I can put it that way. So, there will be some opportunity loss kind of a situation and other than that, I do not see a problem.

**Sachin Raole:** And one more thing that automobile industry, if you look at Maruti has already declared that there Vehicle is running E20 kind of.

**Shishir Joshipura:** So, that 50% market already comply.

**Sachin Raole:** So, demand side is also getting up or getting geared up for the availability of E20 in next three, four years.

**Shishir Joshipura:** And you know, we are a country of engineers. So, you are aware that there are so many vehicles that got converted to gas external to factories, external to their fact that originally petrol car got converted to gas. So, we will, we are a country of engineers and I am sure that if there are minor adjustments require in existing vehicles that will happen.

**Moderator:** Thank you. The next question is from the line of Prathamesh Sawant from Axis Securities. Please go ahead.

**Prathamesh Sawant:** Yeah, so just wanted to understand two things. So, one is the update on the IOCL JV that we have announced last quarter and second question is on to understand the per unit economics. So, let's say someone is starting 100 KLPD ethanol plant so what will be its cost and average payback period or something like that IRR expects?

**Sachin Raole:** From the IOCL front, the MOU which we signed with the IOCL. So, there are different proposals under which under this MOU which we are right now discussing to figure it out what makes sense to finalize the first project to come up with. So it is still under what I can see in an on a drawing board at the opportune time we will definitely get back to you people and tell you what is the development from that front but right now it is on a drawing board

**Shishir Joshipura:** So, typically, starch based there are many factors that can go to build this plant but maybe 100 KLPD starch plant could cost upwards of Rs. 125 to 150 crores and we can look at if a healthy two-digit IRR.

**Prathamesh Sawant:** And sir for CBG plant also what is?

**Shishir Joshipura:** CBG I think Sachin mentioned to you that it's a wide range Rs. 30 to 120 crores when it grows depending on the feedstock and proximity and, etc., what is the cost again reasonably healthy two-digit IRRs

**Moderator:** Thank you The next question is from the line of Faisal Hawa from H.G Hawa and. Company. Please go ahead.

**Faisal Hawa:** Sir going forward what is our R&D spend totally and what areas we are concentrating on doing the research and development.

**Shishir Joshipura:** So, we are in the process of creating a robust program and apart from continuing with what we already have, because R&D is not something that we can commit only for a year, we will have to have a little long-term view on this? So, the program that we initiated, I think Sachin also mentioned, the two of them have now reached from bench to pilot scale. So, we are just developing the feasibility part and we will take appropriate step at that time. So, our R&D spent will continue on the same lines, in fact, into much more enhanced way compared to what it has been so far. We will talk about it when we are ready to talk about it.

**Faisal Hawa:** Percentage of total revenue.

**Shishir Joshipura:** As I said, we will continue at the same pace that we continue so far. But in addition, also we see an acceleration because of new developments that Sachin described in his opening remarks. We will come back to the exact numbers, but that's where we see it going now.

**Moderator:** Thank you. We will move to the next question from the line of Raj Mohan an individual investor. Please go ahead.

**Raj Mohan:** First of all, diesel, specifically any update on the progress in R&D on diesel array? Looking at it from a three-year perspective, do you think we would have a marketable proposition for blending 5% and then the second question, though, we are exploring on the CBG side, any impact on this astronomical increase in global natural gas prices on us?

**Shishir Joshipura:** Two things one there is in the new policy announcement that government has done on CBG pricing they have linked it to the CNG price so that is a good progress according to me because now that at least indexes it to some basis and not just fixes for a long-term program. So, that's a good thing I think that has happened there it is now indexed to CNG. I strongly believe that it should be around right now CNG is higher and cbg is lower it should be other way around in my opinion because of obvious factors that it is much more environmentally friendly etc but so that we will see that's the second separate question. On the diesel blending part it's a program that needs to get developed testing etc and it's a whole protocol to be followed and we are working with ARAI to actually make that into a reality. There are several what I would call elements of this program that need to be approved or programmed into and also then action. So, it is not a very simple program, because we are talking about very big change. But I am sure that what the current progress that we have is reasonably satisfactory and we will get there.

**Moderator:** Thank you. Due to time constraints, this would be the last question. I now have the conference over to management for Praj Industries Limited for closing comments.

**Sandip Bhadkamkar:** So, thank you, everyone, for your time today. It was pleasure connecting with you all. If you have any more questions, feel free to write us at [info@praj.net](mailto:info@praj.net). Thanks again for your time and have a nice day. Thank you.

**Moderator:** Thank you very much on behalf of Praj Industries Limited I conclude this conference. Thank you for joining us and you may now disconnect your lines.