



## **Praj Industries Limited**

### **Q2-FY22 Earnings Conference Call Transcript**

### **October 28, 2021**

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**Moderator:** Ladies and gentlemen, good day and welcome to the Q2FY22 Earnings Conference Call of Praj Industries Limited.

As a reminder, all participant lines will be in listen-only mode, and 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. Please note that this conference is being recorded.

I now hand the conference over to Mr. Sandip Bhadkamkar from Praj Industries. Thank you, and over to you, sir.

**Sandip Bhadkamkar:** Good day everyone. We welcome you to this Conference Call organized to discuss Praj Industries' Operating Performance and Financial Results for Q2&H1 FY22 which were announced yesterday.

I have with me Mr. Shishir Joshipura - CEO & MD and Mr. Sachin Raole - CFO & Director (Finance & Commercial) on this call.

Before we begin, I would like to mention that some of the statements made in today's discussion may be forward-looking in nature and may involve risks and uncertainties. Documents relating to our financial performance were e-mailed to you. These documents, along with Quarterly Results Presentations have also been posted on our corporate website.

I would like to hand over the floor to Mr. Joshipura for his opening remarks.

**Shishir Joshipura:** Good morning everybody, welcome to Praj Industries Earning Call for Quarter 2 & H1FY22. I trust all of you had the opportunity to go through our results presentation for the quarter ended 30<sup>th</sup> September 2021. I hope you and the families are all keeping safe and healthy.



Let me now briefly take you all through the quarterly business highlights and industry developments, following this Sachin will take you through the financials.

Climate change crisis is real and it's already at our doorsteps. It is an irreversible phenomena that is happening even more rapidly than we imagined. The International Energy Agency in its World Energy Outlook Report released in early October 2021, has issued an advisory on CO2 Emissions and Environmental Adversities. IEA has once again stressed importance of accelerating growth of Clean and Green Energy. With COP26 Climate Change Summit in Glasgow just round the corner, 'Race to Zero' Campaign towards carbon neutrality as climate action has gained strong momentum.

Industry and Transportation sectors are identified as the top two energy consumers as well as greenhouse gas emitters. Together they account for almost 50% of the total GHG emissions in the world. bio economy facilitates sustainable climate action by using bio-based resources for production of biofuels and renewable chemicals and materials, which have low intensity of GHG emissions.

1 billion vaccinations in India and increasing speed of vaccination in rest of the world are expected to revive economies. Business activities have gained strong momentum as demand cycles have started picking up, with the beginning of festive season in August and September. Additionally, normal monsoons and better agri indicators continue to augur well for our economy in India. Overall, all these are very encouraging economic developments in the country and globe which we believe will further enhance the opportunity basket for Praj.

Let me now walk you through the business updates:

On our core bioenergy front, India's Ethanol Blending Program is continuing to build on its momentum amongst a very favorable ecosystem development. The existing gap between demand and supply continues to drive capacity creation in the ethanol sector, with nearly 320 crore liters ethanol already contracted for by the OMCs for the ethanol bending year ending November '21 EBP is expected to cross threshold of 10% in near term and continue its northward journey till we reach EBP20.

During the quarter nearly 118 crore liters of capacity was ordered to be built in the country. With nearly 94 crore liters capacity is expected to use starchy feedstock, the momentum has clearly shift in favor of starchy feedstock. These capacities are proposed to be built in non-sugar producing states, ensuring a widespread production of ethanol from next year.

We are witnessing several changes and dynamics of the domestic market. The average plant size is now up to 200 kilo liters per day. Task based inquiries have jumped by almost 250%. It has also resulted in significant growth in number of inquiries for Greenfield projects, which are primarily based on starchy feed stocks. This quarter we saw the number of inquiries for Greenfield projects up by more than 65% compared to Brownfield projects.

Globally, there is an increasing recognition on constructive role biofuels have to play to help combat climate change and reduce GHG emissions. France recently announced a program to improve the energy mix in favor of ethanol. Bioethanol consumption in France is expected to rise to close to 120 crore liters this year. This



is just an illustration of what future is likely to unfold. Several countries are now contemplating increased use of biofuels in their energy basket.

I am delighted to share with you a very important milestone earlier this quarter. ethanol production capacity of plants using Praj's ethanol technology crossed a formidable 11 billion liters annually on a global basis. That translates to over 10% of global ethanol production, excluding China. So, 1 billion vaccines and 11 billion liters of ethanol, all augur well for a better tomorrow.

Our Bioenergy business has delivered a strong performance with a healthy order book exceeding Rs. 500 crore in the quarter. We are clearly witnessing very strong momentum on capacity creation for ethanol based on starchy feedstock. We received highest number of inquiries this quarter. These enquiries are now one and half times more than what we had received in the previous quarter, which itself was on a growth path. In the quarter over 75% of the orders that we won are based on ethanol plants coming up with starchy feedstock.

On international front, increasing awareness and focus on developing carbon free economy across the world, coupled with a gradual return to normalcy in post COVID era is leading to an improving inquiry basket. I am happy to share that we commissioned our single largest Pharma Grade Alcohol Plant, having a capacity of 15 million gallons per year in United States, just a few days ago, with plans to about 22 crore liters per year of capacity.

On the 2G front, we received a contract for supply of reactors from HPCL for the Bhatinda 2G project. Execution of IOC plant has progressed beyond 60% completion level now, and the mechanical completion is expected to be over in Quarter 2 of calendar year 22.

On the international front, we completed demonstration of Celluniti™ Technology based on soft wood as a feedstock for a very important investor group in Nordic region. Further discussions are underway to develop a 2G ethanol plant, based on this technology in the region. I am happy to share that we are able to demonstrate all dimensions of technology during the trials.

While India builds the additional 1000 crore liter per year capacity to address the ethanol requirement for the EBP20 program by 2025, several new initiatives under contemplation with flex fuel engines, ethanol blended diesel program etc. will further drive the capacity creation for ethanol in years to come.

Our joint development program for ethanol blending in diesel with ARAI is continuing as per schedule. And we also expect international capacities to be further augmented, especially in agrarian economies of South America, Europe, Africa and parts of Southeast Asia to meet the demands of enhanced blending mandates, or even fresh mandates in some cases.

Biogenic CO<sub>2</sub> is increasingly generating high interest for some of the leading producers of ethanol. And we are now expanding our reach to serve customers globally with our solutions to capture biogenic CO<sub>2</sub>.

In another initiative, we are expanding our offerings in the performance enhancer space in ethanol and sugar sector. These consumable solutions help improve yield and quality of the end product. The rapid expansion of ethanol capacities on



starchy feedstock is also creating a demand for expert O&M services and plant management services. RemoteBridge a patented solution from Praj for Remote Plants Performance Monitoring System is now being rolled out to serve this need. All these offerings will be on the revenue side of customer's operational spends.

On the CBG front, Indian Potash Limited plant based on RenGas technology has now commissioned and stabilized. CBG as alternative to CNG has been received very positively by the consumers going by the favorable response. IOCL has developed a matching distribution and retailing system to reach the CBG to end consumers. The co-products such as organic manure from CBG plant are fetching very attractive prices which further enhance the project viability. We have already initiated research and development programs for biohydrogen, lignin based marine fuels and sustainable aviation fuels based on alcohol to Jet pathway.

For Engineering and PHS Businesses, we are witnessing a very healthy trend in business opportunity development and expect this momentum to strengthen in the quarters ahead. On the Zero Liquid Discharge business we are on course with execution of IOCL project at Dumad, Gujarat. We are witnessing a very significant and robust inquiry pipeline across key focus segments such as metals, powers, refinery and petrochemicals.

We are also leveraging our prowess of microbiology and working on developing an advanced technology for treating high TDS wastewater streams, a real unsolved problem.

On the CPES front, working with the customers focusing on Clean tech and Green tech is now yielding rich dividends for the business. Our ability to conceptualize, design and build a module is opening new business opportunities for us. We have decided to operationalize a Centre of Excellence for modularization which will be functional in the current quarter. This will help Praj become a preferred destination for those companies, for whom skid mounted plants, as well as enable them to speedily commercialize of the technologies is of importance.

We are currently executing projects for hydrogen plants for some of the leading players in the world. And we are in a position to build several solutions in this space, under this business model.

On the brewery front we are beginning to see early signs of recovery and expect the business to return to normalcy over the next 12 months period. Our execution of India's largest apple juice concentrate plant is progressing as per schedule and is expected to commission by March '22.

On the PHS business, capacity creation across complex injectable and vaccine space in pharma is continuing at a very strong pace. And our strategy to focus on these segments in specific is really beginning to pay rich dividends for this business.

On the operation side, we continue to witness rising commodity prices, longer delivery cycles, and logistic challenges. It has almost become a norm to wake up to a higher steel price announcement every day. The quarter witnessed 15% increase in steel price and a further 10% in the last 15 days. Global steel production capacity for stainless steel is down by 20% due to supply crisis from Chinese steel millers. These developments are putting adverse pressures on margins. To



mitigate these pressures, we have taken several steps such as real-time costing, advance procurement for critical raw material, channelization of plant capacities and equipments, development of dedicated engineering vendors to name a few.

We have expanded our dedicated vendor base and have inducted over two dozen vendors with work areas near to our customer sites to improve cost and delivery dynamics. Considering the growth as anticipated, we have decided to bring forward our capacity expansion plans and we will be starting execution of same in near future. Building on our leadership position we are focused on converting opportunity and potential of the market to business performance while building a very healthy pipeline for future.

Before I conclude, I would like to convey my heartiest wishes to you and the family on the occasion of Diwali, wish you a very happy, prosperous and safe New Year. With this I will now hand it over to Sachin for his comments on the financial performance.

**Sachin Raole:**

Good day everyone. Let me take you through the financial highlights for the quarter and half year ended September 30<sup>th</sup>, 2021.

The consolidated income from operations has doubled and stood at Rs. 532.41 crore in Q2FY22 as compared to Rs. 260.64 crore in Q2FY21. PBT has almost tripled and stood at Rs. 46.77 crore in Q2FY22 as compared to Rs. 15.67 crore in Q2FY21. Similarly, profit after tax stands, has shown three times growth and stood at Rs. 33.34 crore in Q2FY22 as compared to Rs. 11.39 crore in Q2FY21.

For H1FY22 income from operations was Rs. 918.67 crore as against Rs. 389.79 crore in H1FY21. PBT stood at Rs. 76.57 crore in H1FY22 as against Rs. 1.15 crore in H1FY21. PAT of Rs. 55.54 crore in H1FY22 as against Rs. 0.89 crore in H1FY21.

Export revenues accounted for 17% of Q2FY22 of the total revenue 74% is from bioenergy, 17% is from engineering and 9% is from PHS business.

The order intake during the quarter was Rs. 745 crore with 81% from the domestic market, of the total order intake 77.3% came from bioenergy 14.6% from engineering and balance 8.1% from the PHS business, the order backlog as of September 2021 is at Rs. 2235 crore comprising of 82.7% of the domestic order.

The effective tax rate for the half year FY22 is 27%. And during this period the Company is coming under the normal tax rate earlier it was under MAT so it is now paying normal tax. So, that's the reason this percentage is coming around 27%. And we expect that it to remain in a range of 27% to 28% going forward.

I now conclude my remarks and would like to thank you all for joining us on this call. We would 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. First question is from the line of Bhagyesh Kagalkar from HDFC Mutual Fund. Please go ahead.



**Bhagyesh Kagalkar:** My question is slightly futuristic see the biodiesel and ethanol blended diesel; these are technically two different terms. Am I correct?

**Shishir Joshipura:** That is correct.

**Bhagyesh Kagalkar:** But this project the ethanol blending in diesel is so far technically ethanol blending in petrol has been done already 8.5 and we are going to 20%. So, what are the factors that have been holding back the industry and Praj in particular from this ethanol blended diesel?

**Shishir Joshipura:** So, Bhagyesh ethanol blends into petrol but does not blend into diesel, that's the technical reason for us to look for solutions that can make it possible to use ethanol for blending into diesel. Now, that means that we have to create a bridge of sorts between diesel and ethanol so that these molecules can stay in a homogenous form. When we do that, it also then has to meet the emission norms that are specified in the country and that is why we are working with ARAI which is a premium and a premier certifying agency in the country to define how we can go about achieving BS-VI standards, even as we create, I am calling it bridging elements between diesel and ethanol to be mixed into the fuel. This is the program that is currently underway, jointly between us and ARAI. So, already at BS-IV it is known that we can achieve this, we have to achieve the BS-VI standards and work is underway right now, to make this happen.

**Bhagyesh Kagalkar:** This question is regarding the ethanol blending in petrol, there was statement from the Minister that if you had to go to 27% or beyond that, BS-VI norm may not be met. So, some contingent needs to be opted. So, is the roadmap that upto 20% blending, there are no issues on BS-VI, but beyond that, there is some technical issue.

**Shishir Joshipura:** So, the issue for blending of ethanol into petrol is not connected so much to the emission norms not being met. It is an issue about readiness of an automotive IC engine to except a higher blend of ethanol. As you are probably aware, technologies are already available and being used at vast commercial scale in Brazil where all the vehicles are flex fuel vehicles as they are called, they can admit 100% ethanol and 100% petrol and a mixture in-between and that is the technical solution that is required.

So, after a certain percentage of blend and we were in a conference with the Brazilian industry associations and they were informing us that they have now tested blending up to 27% of ethanol into petrol and they have had no adverse feedback to give as far as IC engine performances are concerned. Beyond that, obviously the car needs to change or the vehicle needs to change for which flex fuel vehicle policy is what is being talked about and is necessary which will allow the engine to operate efficiently at higher percentage of ethanol.

**Bhagyesh Kagalkar:** The orders from the grain-based producers of ethanol are rising. So, that fits in with the hypothesis that this 20% blending can be achieved only if it is uniformly done across India and not just based on Maharashtra and Uttar Pradesh sugar feedstock. Is that the way forward?

**Shishir Joshipura:** That is absolutely correct Bhagyesh. In fact, the starchy feedstock, freeing up of starchy feedstock for ethanol production has actually now made it possible to produce ethanol across the country and is no longer limited to sugarcane growing



states. If we produce ethanol in multiple locations in India and starchy feedstock is possible literally to, on a pan India basis it is possible for oil companies to then receive these ethanol closer to their local depots and therefore blending shall go up across on a pan India basis.

**Bhagyesh Kagalkar:** Last question on the CBG, CBG pilot plants performance is quite positive in your view, one or two small CBG that were started.

**Shishir Joshipura:** Yes, that is correct. We are very positive about the performance of the plant.

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

**Amish Kanani:** Coming to the order flow, I just need a short to medium term view on this. Historically, we have seasonality of first half, is average the last few years. We used to get 45% in the first half and the second half used to be 55%, but given the need of the nation where we need to comply with the blending by 2023 and there is lots of order, should we assume the seasonality the way it was or you think a lot of orders are getting upfronted and hence it will be risky and dangerous to assume seasonality from here to say next 6 quarter where we need to reach those high blended ratios, as a country?

And in that context, if there are lots of order inflow, is there a way we can get some sense of are we maintaining our market share, because, in a kind of growth rate that we are witnessing, maintaining a very high market share of say 60% plus would be challenging. So, your thoughts on both seasonality versus market share in next 4 to 6 quarter?

**Shishir Joshipura:** Amish, that's a fantastic question. So, earlier days, if you were to look at it, we were pretty, ethanol portion was very limited to three states on to sugary feedstock and even after all the economically viable sugar is extracted, left molasses so that became the feedstock. From there, we have travelled a lot under the National Biofuel Policy in a very constructive and positive way.

The sugar feedstock itself has been freed up now to include that you can take sugarcane juice and directly convert that to ethanol and from that on to, but that would still limit the production to three states whereas now and still on the sugary feedstock crop, there is now with freeing up of the starchy feedstock as well for ethanol, a) It is now become trans India, pan India, if I can call it. So, we are able to see, we are witnessing that now plants are coming up in very different states, especially based on starchy feedstock. So, it will A) Widespread it B) The grain or the starchy feedstocks are not as seasonal in nature as sugary feedstocks. So, there will be some impact that you will see in the in the balancing out of of the year. But at the end of the day, there is a significant role being played by the sugary feedstocks-based plant as well. So, that element of seasonality will stay because that's the way the nature's course is. And to that extent, we will see some seasonality built in the business.

I had also mentioned during my opening remarks that we are seeing almost 1.5 times increase in the inquiries that have come to us in the last quarter compared to the previous quarter. So, the momentum is still continuing. So, I would not call it a front ending of the order book or anything like that. I think we expect this to be continuously build, maybe even stronger than where we are today. So, that's the

expectation that we have. So, from the pipeline perspective, the pipeline is stronger than it was at the beginning of the last quarter. So, it's even stronger at the beginning of this quarter compared to the previous quarter. So, I hope that answers your question.

**Amish Kanani:**

Second question on the gross margin sides, historically, we had a decent gross margin more in the band of, closer to 50% plus. And of course, the steel, inflation our gross margins are low. And I understand that, we will have those kinds of pains to bear with say next one or two quarter.

So, the question is, given our execution cycle, which is of 9 to 15 months, can we build a margin scenario based on the new orders and pipeline that we are getting and the kind of demand that we have, how soon do you think we will go back to those gross margins, which are more healthy, I would put it as between, say, 48% to 50%. And resultant EBITDA margin, which would be say a double digit plus.

**Shishir Joshipura:**

Amish there are multiple factors and let me start by saying that one other factor that we have to factor in is the fact that in the overall mix, because of very high growth rate that we are witnessing in the domestic market, in the overall mix, from a percentage perspective, the international business has gone down, compared to what it traditionally used to be. So, that's one clear reason, because of the sales mix or the order book mix change that it is more dominated by domestic business, which is slightly on the lower side of margin compared to the international business. So, that's one dimension.

Two, as you correctly mentioned, the rising commodity prices are a concern. And we already mentioned that, yes that is definitely going to impact. I mean, for me to pretend that it won't matter is not correct, because it does matter. As I was mentioning earlier that we have taken several measures now to see how we can actually combat this situation, because we don't control what happens to the prices, but we can definitely control how we respond to it. And from that perspective, we have decided on a new way of order finalization cycle, the real-time costing model, we are looking at diversifying our resource base in terms of our vendors, away from our traditional vendor base to also leverage the volumes we have, the way we buy things is changing the whole effort on standardization and mass customization that's something that we have been driving for a year, it's not that this has arrived on our doorstep and we don't know. We were preparing for this kind of, in any case to become more efficient. So, that is going to help us now as we move forward.

So, different slew of measures that we are now enacting on different aspects of project execution with an effort not only to combat and overcome this adverse rise in commodity costs, but also to see how we can build even better margin in our business.

**Moderator:**

Thank you. The next question is from the line of Prathamesh from AXIS Securities. Please go ahead.

**Prathamesh:**

My question is regarding the EBITDA margin, now given we have taken all the measures that are, reducing the impact of raw material prices, can we assume that this 7.98% would be a worst come based scenario margin going forward, like steady state, like bear minimum margin we can expect going forward?



**Shishir Joshipura:** Well, I would give the answer with a provision and it's like this, yes, if all things remain at similar basis, the answer is yes. We don't know how the future will unfold. And we will see inflation or availability dynamics that sort of creep in on our supply chain side. But assuming that they continue to be in the same zone, what your assumption is very correct.

**Prathamesh:** The second question is regarding this increase demand of grain-based distilleries. Do you think this food versus fuel debate would poses any threat to this hypothesis going forward? What's your view on this?

**Shishir Joshipura:** As I was mentioning, these are starchy feedstock, a substantial part of this feedstock could also be those grains that are not fit for human consumption. And then we have, the Government has thought through this policy, because we do have a situation of excessive grain production in the country. And therefore, there has to be an alternative outlet for farmers to realize their gains from having harvested that crop, right.

So, I think this is, if you look at it from that perspective so look at how much do we need as a country? What would be the safety stock that a country should maintain? What's the emergency stock that we should maintain? Assume that there is drought and we maintain that as well as, after all these calculations are done, we are still left with surplus. So, rather than allowing it to go to waste, and we are happy, even if comes to a situation where it is not fit for human consumption, it's very fit for ethanol production, we are very good with that situation.

So, from that perspective, I don't think we need to worry about food versus fuel debate, because of very simple fact that after providing for every possible conceivable situation and safety measure, we are still left with additional feedstock, which is now being diverted for meeting, an equally important demand for the country in form of energy.

**Prathamesh:** Can just throw some light on the commercial feasibility of the second-generation ethanol, where is it up to right now?

**Shishir Joshipura:** Yes, so, a lot of ground has been covered since the day we actually announced the first set of projects, we have been continuously working on development of this technology, not only from the basic technology itself in terms of the CAPEX and OPEX reduction, which of course, is a continuous exercise. But we also focused ourselves on creating several a suite of byproducts or co-products, as I would call it co-products from this technology, which enable us to actually improve the financial viability of the project. We have since then expanded to include not only agricultural residues, but also forest residues in our agreement with the SEKAB of Sweden under the Celluniti™ program, which is now coowned between us and SEKAB.

So, we are very clearly witnessing a progressive growth towards making it more and more commercially viable, depending on the feedstock logistic situations, we are now in a situation that we can definitely say that the 2G technology is now progressed from a negative error situation to a positive error situation for the project. And the co-product development, we are sure that it will become a reality very soon.

**Moderator:** Thank you. The next question is from the line of Levin Shah from ValueQuest Investment. Please go ahead.

**Levin Shah:** First question is on the order inflow itself so now that, like you spoke about in your opening remarks that the kind of inquiry level has been almost 1.5x of what we have seen in the previous quarter, so do we still maintain our guidance about progressively building on order book every quarter, or is there an upgrade to the order inflows that we are looking out for this year?

**Shishir Joshipura:** So, Levin, we are looking forward to a period which is continuously improving from where we are, that is the idea and that's what we are working on. As I mentioned, of course as the inquiry inflow has increased across businesses, it needs to start translating into business opportunity as well. And we are very confident that will be the case. So, we are looking forward to an increasingly, last 6 quarters and even in future we will continue to build on the pace.

**Levin Shah:** Also, on the order backlog now, if we see, one interesting thing that during this quarter we have had is the exports backlog. So, in terms of absolute numbers, that's the highest ever export backlog that we have ever had. So, if you can throw some light, what are the kind of orders that we have won and what is the trend that we see now going forward in this exports order inflows?

**Shishir Joshipura:** So, Levin I think that's a great observation. The point is that we have not lost out on an international business or anything like, it's just that the domestic business is growing at a very rapid pace. So, in terms of pie chart, the international pie starts look smaller on a pie of 100. And you are absolutely correct and we are building we have strong, I did mention that we commissioned the first project on the pharma grade alcohol, our largest in United States, we expect that that will become a big showcase for us as we move forward through the next year or so. And it will help us to attract more potential customers.

We are focusing as I had mentioned earlier on the Clean tech and Green tech companies looking for a solution to engineer and manufacture and bring to life their technologies and that business of the CPS business of ours is really focused on the export side of the business and they are focusing on making that into a reality for customer. And actually, position themselves into a favorable spot with these companies and we are seeing that that is indeed the position that we are achieving with some of them. And that will augur well because all those jobs will be for the international business.

We have done similar focus areas with PHS HiPurity business of identifying markets, where we could have a definitive play. We are looking at as I had mentioned earlier also for the second-generation ethanol with the salinity application on forest residues in Nordic region. So, there are several I would call as blocks in the pipeline that could start to play out even on improving the international from here onwards, by itself it is big enough, but because of domestic it is at a very high pace, we are looking at creating levers that will grow international business also at a very high pace.

**Levin Shah:** The margin pressure or the increase in the raw material prices that we have seen, which is impacting our overall profitability. So, previously what we have highlighted is that up till December 20 is when we had orders with like previous material prices and post that we have started revising. So, will it be safe to assume that now in our order backlog most of the orders would be at a revised price?

**Shishir Joshipura:** Levin when we began the year, we were at about 700 odd crore of order backlog in the year of which 900 odd crore has already been executed so there is still to go and we have some services there etc. So, still 500 to 600 crore of orders would still go through that cycle. But the point is this that the commodity prices have not increased once and stabilized at that. As I was mentioning earlier, we wake up everyday morning to see a new price point.

So, several acts that we are doing now will obviously stand us in good deed in any case. So, whenever, as an when the prices stabilize and that's not even reduce, just stabilize that they will stop increasing this on an everyday basis, we will start to see a good impact out of these actions that we are taking. As you can see, the actions that we have taken even in worst of the circumstances have actually meant that our bottomline is up by one percentage point. But yes, we can do better if the prices were stable. And we will continue to focus our efforts on that.

**Levin Shah:** Last question on the CBG front, so Leafiniti project that we were doing first project was expected to get completed by October so where we are, has that project been completed and what's the status of the balance 9 projects for which we had signed an MOU.

**Shishir Joshipura:** So, Levin, the Leafiniti project MoU is for 10 projects, so the first project is now nearing mechanical completion so we just have to start the process because now new season will start so press mud will start flowing in from the sugar mill etc. So, we would expect that during this quarter we will commission the project for Leafiniti and once that of course starts then we will start to talk to them about the future plans because obviously, they would like to experience one before they start moving on the next one.

**Moderator:** The next question is from the line of Vikram Vilas Suryavanshi from PhillipCapital. Please go ahead.

**Vikram Suryavanshi:** Can you just give some outlook in terms of licensing out and scalability of renewable products particularly for **(Inaudible) 38:40** or Lignosulfonate and whey proteins as well as this biowaste polymers and PHA. So, how do we look at licensing opportunity and scalability of this and where we are?

**Shishir Joshipura:** So, yes, as I was mentioning that co-products will play an increasingly important role in improving the viability of the second-generation technology. We will have to see what exact route works out because it there is a licensing route that is possible for us to actually work on there is a possibility of coproducing facilities. So, we are in dialogue with some very interesting players to see under what model these co-product development on the commercial scale can take place. And we will keep you posted as we go through the year but this is an area where very interesting work is happening right now.

**Vikram Suryavanshi:** Because we had some announcement on bio bitumen and so I thought are we close to similar progress in PHA or other products.

**Shishir Joshipura:** So, on the PHA side the development work is still on. On the bio bitumen what we have said is we have now developed a process for manufacture of bio bitumen as one of the co-products out of the 2G lignin stream. And that stays, there is lignosuphonate, there is going to be other slew of products that we are working on. So, as we move through it and when we are ready, we will definitely announce it.

Right now, as I was mentioning for the co-product that we have already developed and announced, there are interesting dialogues currently underway to see how we can commercially scale it up.

**Vikram Suryavanshi:** This 2G ethanol plant particularly from Biomass, how they are placed versus Biomass gasification and do we have technology and expertise in bio gasification also just want understand and clarify that thing.

**ShishirJoshiPura:** So, let's understand so biogas is one way of or CBG as it's called in India, Renewable Natural Gas as it's called outside, is something that is one process through which you can take an organic mass and convert that to an end product. There is another route which is a cellulosic biomass you take it and through another process you convert it to another end product called ethanol, right.

Now biogas plants by nature are small and distributed. ethanol plant are centralized and not distributed. Plus, both of them serve very different needs. One is a liquid fuel; one is a gas fuel. One is a) it produces ethanol which can be directly mixed into a fuel or it can be used as a building block for building further products upstream. Therefore, we have to look at it, how it produces differently in terms of the development, right.

The gasification dimension that you use is slightly different because one can look at gasification of a biomass either from a perspective of converting into CBG or create a biogas and then convert that to ethanol. So, that's another route that can take place. So, different technologies are currently at play and we will have to see as to which technology finally holds ground in terms of being commercially viable, being accessible and prove itself. So, there is biogas outlook, which is CBG, CNG route, RNG route. There is another one where you can gasify and then convert that gas into ethanol, so that's another route. But the gasification to ethanol is still not at commercial scale. It is being still contemplated to be put up there. So, we have not reached that space, you probably heard of a Company by the name Lanza Tech, they are the ones they are actually taking it forward. But there again the gasification challenge on biomass side are still to be addressed.

**Moderator:** Thank you. The next question is from the line of Ankit Gupta from Alchemy Capital. Please go ahead.

**Ankit Gupta:** In your PPT, I am reading a remark that from October 2021 incentive to sugar industry has doubled. Can you tell me has there been a policy change this month or something?

**ShishirJoshiPura:** So, this was based on the allocation of or the diversion of sugar to the production of ethanol. So, the incentive is doubled for the diversion of the sugar for higher production of ethanol, that's what you must be talking about the recent announcement on that front. So, it is basically going to help more production of ethanol that was the reason why this was incentivized.

**Ankit Gupta:** You gave some numbers on the starchy feedstock orders in this quarter, I missed those numbers, can you give them again.

**Shishir JoshiPura:** I said that nearly 75% of capacity that gets ordered out in the country, this quarter was for starchy feedstock-based ethanol production. So, Rs. 118 crore that we have seen are being ordered out, nearly 75% is on starchy feedstock.



- Ankit Gupta:** I was saying the raw material is rice now, broken rice, which are the key raw materials now.
- Shishir Joshipura:** Yes, broken rice, maize, the feedstock that is not good for or not fit for human consumption, the additional feedstock, Yes so there are different categories but you are right, broken rice are some of the primary materials.
- Ankit Gupta:** The last call you had mentioned something about Brazil also that, we are in discussion for some of the orders any progress has been made on that front?
- Shishir Joshipura:** Yes, so we do have our first order from Brazil. I should have mentioned that you, thank you for pointing it out. It is the first start and we are in negotiation, as I was mentioning to you and you are aware that in the past we have shared that we have tied up with the Company called Dedini in Brazil to take our technology to the Brazilian market. Owing to what I would call as a different rate or recovery or slower rate of recovery from the pandemic, Brazil market has not been very active, but we do see return of activities and we have actually signed our first deal for transfer for technology in which case it will mostly technology transfer and not too much of equipment supply, for one project in Brazil based on grain.
- Moderator:** Thank you. The next question is from the line of Kenil Mehta from Omkara Capital. Please go ahead.
- Kenil Mehta:** Over last four years the revenue run-rate of Praj HiPurity System is approximately Rs. 150 to Rs. 160 crore, what are the reasons why we cannot scale up the business? And also, why the margins have decreased over the years from 26% to 15%?
- Shishir Joshipura:** So, Praj HiPurity's business, if you understand it's a very niche, catering to a specific industry called pharma industry. The offerings from us which were there for again for a very specific requirement of a purity of a water and getting majorly into formulation side. Now this scenario is changing and more bio-based pharma which is happening, fermentation or a bio-based pharma which is happening where our applications are far more applicable and that's the reason why we will be seeing a change happening in PHS now onwards, where the vaccination and the bio-based fermentation based pharmaceutical investment which is going up now. So, that's the change which is going to happen.
- The margins which you are talking about, you must be talking about very old margins set numbers which were there, maybe in the period of 2017, Yes, so almost four years back. But the margins have now come at a very different level right now, considering the market scenario.
- Kenil Mehta:** Also, I wanted to know for biodiesel, for mixing diesel and ethanol, there should be higher burning temperature capacity. Do you think ethanol has that power to mix with diesel compared to petrol?
- Shishir Joshipura:** So, Kenil, first of all, ethanol blended into diesel does not make it biodiesel, biodiesel is a very different product and ethanol blended diesel is a different product. As I was mentioning earlier, ethanol is not directly mixable into diesel and therefore we need a bridging element and that's the work that is going on right now, to ensure that happens. In terms of combustion there is no problem at all, because ethanol is an oxygen releasing agent so that actually helps the process.

But having said that, what is important is to ensure that the tailpipe emissions are also in line with the regulations. So, the blending has already passed the BS-IV test and we now need to pass the BS-VI test and that's the work currently underway between Praj and ARAI.

**Moderator:** The next question is from the line of Srinivas from Mirabilis Investment. Please go ahead.

**Srinivas:** The first question is, like if I see the last three quarters we have won orders of roughly about Rs. 1600 in the bioenergy segment. I presume about 80% to 85% would be say 1G, say may be around Rs. 1300 or Rs. 1400 crore. One point I wanted to check was, what has been the kind of a win ratio for the project that we have bid for, I mean how much projects we would have bid for to get these kind of order wins.

**Shishir Joshipura:** I think what happens is that if you look at the way market moves, so people would ask us for bids even when they start to contemplate a project, to see as to what is the project outlay, makes the basic feasible reports, submit to bankers for funding, etc. etc. So, those inquiries are many. But if you look at it from the perspective of saying when a serious bid has been made by us, and our market share is indicative of that, so at about 60% odd of market share, that's where we are, so you can take it that 6 out of 10 is the bid that we win.

**Srinivas:** That continues to be the same as per historical term.

**Shishir Joshipura:** Yes, and let me, and so I had our process of bid, no-bid is also very stringent. It is not necessary that we keep on bidding for every project which comes on our way. So, in that sense even though the market share is 60%, the win ratio is definitely higher.

**Srinivas:** So, here you are also counting the project that you may not have bid for.

**Shishir Joshipura:** Absolutely correct.

**Srinivas:** Second question is on the engineering business; I think couple of years back we had this change of strategy where we said we will tie up with some of these global engineering contractors and win critical process equipment kind of a business from them. If you could just take us through the journey of what has happened, I understand COVID must have disrupted, but broadly what progress have we made over this period of time.

**Shishir Joshipura:** So, as I was mentioning earlier, this is the business which actually focuses on select customers, actually 16 total globally that they work with. These are the companies that are focused on bringing Clean tech, Green tech solutions or gas-based plants or industrial gases, very high specialty chemicals, so that's the segment that this business serves. And as I had mentioned in our opening remarks also, one of the key trend that we see there is customers doing two things, 1) there is a clear "China Plus One" strategy at play right now where they are saying that they would like to have an additional source for their demands be served out of country other than China which is definitely helping India as a country and us as well in-turn.



But more important in that is also the fact that they are looking for capabilities of conceptualization, engineering and constructions of skills, what we call as modules, okay. So, the plants on skills and that is something that we have a unique position because we can do all of that, that is we can conceptualize, we can engineer, we can manufacture and we can assemble as one organization. There are not many organizations which can do all of this and there are a few, not that there are none, but there are very few organizations who can do this. And that is where we are creating a niche space for ourselves, because companies which are developing technologies on their own but have no wherewithal to do these next steps to actually see the commercialization of it. And we are seeing some of our customers are really marquee customers in the world. They are absolutely top end of their segments. They are number one or number two in their businesses, globally. And these are the customers with whom we are working to develop this business. And this is something that we expect to be very, very strong as we start moving forward.

**Moderator:** Thank you. The next question is from the line of Manish Jain from Moneylife Advisory. Please go ahead.

**Manish Jain:** Just wanted to understand the business economics. So, 150 KLPD plant costs Rs. 130 crore, not including land. What is the minimum component of this Rs. 130 crore that could be your business?

**Shishir Jshipura:** Well, typically I would say that at a minimum level if we have got one-third of investment that will flow to our technology and process plant, that's a thumb rule basis.

**Manish Jain:** The second question is, where do you expect to see the HiPurity business in the future, like in the next two to three years?

**Shishir Jshipura:** As I was mentioning and I think Sachin also mentioned, we are seeing a good traction build on the biopharma side of the business that is where we actually have a lot of offerings to make even on the non-biopharma segment, we are very clearly seeing development in terms of complex injectable space where we have actually focused our offerings. We are also now making the strategy to offer and go beyond just HiPurity water to include fermentation and associated solutions in our offering. So, we do expect these augur well for us to actually go and produce a much larger and more comprehensive solution for pharma companies that would help this business grow further, which is what Sachin was also mentioning that it is breaking away from its traditional Rs. 150 crore kind of a level at which it was to move up the value chain.

**Moderator:** Thank you. The next question is from the line of Rajamohan Vaikutaraman, Professional Investor. Please go ahead.

**Rajamohan. V:** You have indicated to strong momentum in starchy based feedstock. You had also previously indicated to 2G ethanol taking more than two years to commence serious commercial production, due to the overall economics. But then it was heartening to note negative IRR has turned to positive.

Could you marry the two and tell us what are the major reasons on the ground are we seeing such serious cost, economic improvements, could drive this interest quicker than probably even you anticipated. So, in this context, do you think it is a

realistic estimate to generate 65% or Rs. 650 crore liters from starchy feedstock by 2025 deadline, in the additional capacity that is going to be implemented?

**Shishir Joshipura:** If I understand the question correctly, so what has happened, so if you, and I am going to give slightly broadish answer, and if that does not address what you said, please feel free to ask a follow-up question. So, globally we are seeing in several markets starchy feedstock leading because they don't have sugary feedstock. So, they are using United States for example is almost entirely based on starchy feedstock production market. There are different markets in the world which use different feedstock.

India did not have a policy that permitted use of starchy feedstock for production of ethanol. And that is what has changed with the change in the ecosystem and the amendment in the policy dimensions, which is now freed up because with sugary feedstock we were limiting everything to three states that was no longer feasible if we have to achieve higher blending levels. It will also mean a proper, there has to be base fuel available in the country, and I think the base fuel is set to change to EBP10 now as we move forward across the country that means we will get wherever you buy, you will buy EBP10, that's not the case today. Some states have higher blending, some have low or some have even zero. So, we don't get the same fuel across the country today. We do get different fuels.

Starchy feedstock are not second generation they are first generation technology as far as we are concerned. So, and very proven in international market we have been doing it for years together so very proven technology from our end. There is something new for the country, but not new for us, because we have built these capacities globally as well before. And we clearly see shift as I was mentioning, a big momentum building up because now obviously it means that the, and I had mentioned this in, a couple of calls ago, that the fundamental structure of the industry is changing from the single feedstock, single ownership for ethanol to multi-feedstock, multi-location, multi-owner kind of a structure which is what we are witnessing, which is what we have said that that should happen and that is what exactly coming unfolding on the ground. Did I answer your question?

**Rajamohan V.:** What I was actually quite intrigued by was the negative IRR turning to positive, was that a surprise to you or did it happen as you had anticipated?

**Shishir Joshipura:** Blood, sweat, hard work that's what made it happen from negative to positive. We have been working at it, we have a demonstration plant setup. We are putting our resources. We are putting money. We are putting efforts. We are developing it. We are leveraging everything that we know we are talking to customers, we are talking to supply chain partners. We are doing everything we can to actually move, because we as a Company strongly believe that that's where the future is, that is what is likely to happen. Europe will be the first place that will lead that because that is a real solution that cuts down CO2 emission like nobody can. Right, almost 80%, 85% reduction in CO2 emissions compared to normal energy sources.

So, we strongly believe that eventually the world will have to go that way. And we are doing everything right now a) To reduce the basic CAPEX and OPEX but also include the feasibility by developing co-product, because I think at the end of the day, we must make sure if it is commercially viable, it will anyway groom and pick up and have its own spot in the sun or in the mix, right.

So, we are working on co-product development, bio bitumen, lignosulfonate, two examples from there, we are working on many others. We are very confident and as we move forward, our efforts and we are continuing this, we are not resting. We are continually engaging ourselves to a) improve the technology, reduce the CAPEX, reduce the OPEX, create co-products and improve the feasibility of the plant. It's hard work, we are not surprised at all.

**Rajamohan V.:** My second question was considering this R&D capability of yours, as well as the exiting ecosystem that is very promising. Do you feel when the raw material prices especially stainless steel starts to head south, do you feel there is serious potential for margin improvement which could possibly leave your 12%, 13% that you attained in the last quarter far behind, in say medium term?

**Sachin Raole:** Yes if what you say happens, then we should be where you think we should be.

**Rajamohan V.:** On the CBG side, you had previously indicated to the entire ecosystem getting seriously off the ground in two years. What is your estimate of the annual business from this segment, say after two years. And in diesel you have indicated to the work you are doing with ARAI. Do you have any timelines to share?

**Shishir Joshipura:** So, on the second question, first, what are the kind of timelines that we anticipate in which we should achieve the desired testing. The testing cycle themselves lasts for almost 12 months. So, once we give a solution, it will take 12 months of testing cycles for it to come to a stage of, saying, alright now this solution when ethanol is mixed into diesel with this kind of bridging element, it is able to meet the BS-VI norms. So, that is what is likely to happen.

As we move into that space, we are also understanding that there are different standards that are prevalent right now, based on the kind of engine, stationary engines have a different emission norm, if it is agriculture machinery it is still IC engine, but very different norm or no norm for that matter. So, there are very different norms to different kind of engines. And we are working on a comprehensive plant, so if we pass the BS-VI test then everything else is covered in any case.

So, we are going to work, right now we are focusing on getting this off the block, I would say 18 months kind of a timeframe is what is required for this to be achieved, because 12 months is a testing time on the blending side.

**Rajamohan V:** Yes, on the CBG side, what is the kind of business estimates --

**Shishir Joshipura:** On CBG side, so the SATAT program is obviously very ambitious, which is setting up of a 5000 plants. Now that ecosystem development, at what pace it happens, the city gas networks, the policies to blend CBG into the city gas networks. There could be a play that could also emerge around, how does the bio-hydrogen space develops, so there are different drivers for CBG to develop, but right now we would assume that the basic SATAT driver is what we will kick in. Then we should be looking at least and I am not saying 5000 plant is a long journey, to be undertaken. But obviously if should start out, at the end of two years, it should start out by at least if not more a 100 plants a year. And that itself is a Rs. 5000 crore opportunity there.

**Moderator:** Thank you. The next question is from the line of Tanvi Bandhari from HEM Securities. Please go ahead.

**Tanvi Bandhari:** First, would you give us any guidance in terms of your EBITDA and also you know March we had seen very good numbers and as you said, the execution cycle is anywhere between 9 month to 15 months. So, what kind of revenue guidance would you like to throw for the coming quarters or maybe for the full year?

**Shishir Joshipura:** So, Tanvi, as a policy we don't give any kind of a guidance. I can only hint, give you on the basis of the backlog of the order book which we are having. And we are anyway talking about how the margin is going to span out for us over a period of next one year, I think that should be the only possibility from us to give any kind of idea. Otherwise as a policy we don't give any kind of guidance.

**Tanvi Bandhari:** Just one thing as you said you order inflows have been increasing every quarter and will be increasing every quarter, but after March even in June and September quarter, we are not able to see such kind of revenue growth as we saw in March '21, so just your outlook on that.

**Shishir Joshipura:** So, Tanvi the scenario is definitely changing. Last year naturally the story was different, definitely for the first half June was naturally completely different because of COVID. Traditionally is first two quarters we had seen a lower revenue because of the site activities gets impacted because of the rains and all that. And that's why third and fourth quarters sees higher volume on the revenue side. But if you look at the order book, the built up the way in which it is happening, it is on a quarter-on-quarter as we must have seen in the last six quarters, the built up is definitely on a higher side. That's what we said that it is going to be on an increasing trend, the way in which it looks like the current scenario. The revenue built up is also supposedly to happen in a similar fashion, but completely depends if there are more site activities supposedly to be done, then the first quarter might be little lower that possibility cannot be ruled out. But over a period of next one or two years if you see, sequentially we are seeing only the numbers are on the upward track.

**Tanvi Bandhari:** With Government's more focus on this Ethanol Blending Program, the more players come in despite the fact that you have a very handsome market share. How do you see this competition creeping in?

**Shishir Joshipura:** So, competition is intense and I think that's a good sign, because that actually means that the markets are very healthy, the demand is robust. But the fact is that the competition is there, very much there. Our only problem is that the competition is almost coming from what I would call as unorganized sector. And therefore, it puts what I would call as very different pricing dynamics in the market. And that's where it becomes to play out a little difficult. But that's in the domestic market. The international markets, we have country specific competition, we have been meeting them head-on in every single case. And that's something that has actually made us better, is the way I would look at it. It has pushed us to do better, it has pushed us to different levels of technology.

And I did mention this, but I just want to take this opportunity again to say this, I did mention a number and I do not want the significance of that number to be lost on anybody. 11 billion liters of capacity being delivered through Praj plants now, globally which is, if you exclude China because we don't have figure on China,



that's nearly 10% of the global capacity that we have built. So, we are very clear in terms of our leadership position and what needs to happen going forward.

**Tanvi Bandhari:** With the commodity prices rising up, the contracts that already are there, do we have a pass-on effect that we could pass the increase in raw material price that is building a pressure on our margins? How do we see, the raw material price, would there be increase in price in our final product?

**Shishir Joshipura:** Tanvi, we do not have a price variation clause with our customers, because that's not the trend or the established norm in the industry. So, once we get an order, our prices are locked, costs can be floating and that's what we have been talking about that's what is impacting. If it was so that we could pass on our inflationary pressures to our customers well, then obviously we will have a very different conversation right now. But it is a fact that this is happening and this is a fact.

But what we have done is we have also changed the way we used to approach the field as I was mentioning earlier without elaborating on the call just to tell you that we do have, what are called the real-time cost model now, under which we bid and we try to minimize the impact of the runaway commodity increase. The problem is that as I was mentioning earlier, you wake up every day in the morning to see a new price points for steel that is something that is not a very easy problem to solve. But I am sure that as the prices stabilize and this runaway trend of everyday increase stops, we will be in a position to do much better than where we are today.

**Moderator:** Thank you. The next question is from the line of Himesh from Sequent Investments. Please go ahead.

**Himesh:** In the opening remarks you mentioned that we are looking for a capacity expansion. So, can you throw some more light on that?

**Shishir Joshipura:** Yes, as I mentioned that we are seeing a very healthy order book develop for us, in both ethanol as well as our CPES business which based out of our Kandla factory. And we are looking at actually from the perspective where we are sitting, we were thinking that maybe somewhere around 2023 March is when we should start looking at capacity expansion. But the way the markets have responded and our technology has found acceptance, and the business development speed, we believe that we will have to move to a stage of advancing our capacity build up plan, at least by one year. So, that is something that we will do it during this quarter. And once we are ready with our numbers we will let you know but that's something that is definitely going to happen.

**Himesh:** There is no amount of the CAPEX that we have finalized yet.

**Shishir Joshipura:** No, we will be finalizing during the quarter, and we will inform you at an appropriate time, but we will definitely be looking at investing into capacity built, because of the very high pace of order book inflow.

**Moderator:** Thank you. The next question is from the line of Bharat Sheth from Quest Investments. Please go ahead.

**Bharat Sheth:** We are working on several technology apart from whatever we have announced. So, if you can give some color, which are that other technology we are working and



what stage we are, that is one. And second, we have been hearing that all this chemical company and where we are working with them, they generate lot of polluted sludge also, which generally people don't, I mean touch. And there are also company now which have started that they are retreating and selling as an alternate fuel. So, any color on that?

**Shishir Joshipura:** So, Bharat, in terms of technology we continue to strongly focus on both the platforms, Bio-Mobility as well as Bio-Prism. Bio-Mobility is around, so we have as you know ethanol is a very clear solutions in all first generation, second generation also, CBG. So, those are the, what I would call a Surface Transport Solutions that are already out there. We are also then working on developing solutions for the other modes of transport which is the air and the sea or Marine as it is called. So, yes so we are developing technology now on ethanol to Jet pathway, which is where we believe that because of unique position of ethanol in India, it could be a good solution for the Indian market, if we want to move from ethanol to Jet fuel production. And that's the technology that we are working on right now.

We are also working at creating technology for Biohydrogen, the green hydrogen, one is the electrolysis route which everybody is putting on the plants, but we believe that there is also an alternative route that can use, the other abundantly available commodity called agriculture waste or forest residues that can be used to create Biohydrogen so that's another work that is underway. I was mentioning earlier about co-products development. So, two we already mentioned, bio bitumen and lignosulfonate. There are some others also in the pipeline.

And so that's all of the Bio-Mobility platform, on the Bio-Prism platform also, there is a work going on around PHA and other bioplastics and other products that we are focusing on, which are an outcome of biogas processes, rice bran wax, there is aluminic acid. So, there are many of these products that's also we are working on simultaneously to see as to how we can leverage what we know to create a better solution for the customer.

**Bharat Sheth:** So, what stage I mean all these technology and when do we really see I mean something I mean commercialization or pilot level coming up?

**Shishir Joshipura:** Bharat, these are different levels of development, each of these technologies, they are not all at the same stage, we have a very elaborate process of what technologically readiness, development we are doing, what's the commercial readiness level. And each of them are at a different stage. So, I won't be able to answer this on the phone, but as and when an opportunity arises, we will be happy to share it with everybody as to where the development is. But they are all underdevelopment, they are all in different stage, different points of curve. And I am sure that we are progressing in the right direction and you will hear more about it as we move forward in the future.

**Bharat Sheth:** Simultaneously are we also evaluating, I mean this chemical sludge, which is generated and which, I mean people don't touch, I mean it's very difficult to treat and now people have started treating this and using as an alternate fuel.

**Shishir Joshipura:** A lot of our effort is focused on what I would call as using biological waste or organic waste and find alternative, convert them to usable form of energy. We haven't looked at toxic waste if that's the question that you have. The only and I am expanding the definition now, the only area where we are right now really focused





and I mention that, is this ultrahigh TDS waters, which come out of some of these processes and they are almost like concentrated slurries right now. So, they are not, these are the waters which are not easy to treat and there is no treatment. We are working on developing a microbiological solution for that which hopefully will address that demand as well.

**Moderator:** Thank you. The next question is from the line of Levin Shah from ValueQuest Investments. Please go ahead.

**Levin Shah:** You said that earlier we were looking at capacity expansion, post March '23 and now we are preponing it. So, what is the kind of expansion that we are looking at? And even with the current capacity, what is the kind of turnover that we can do?

**Shishir Joshipura:** So, Levin you will remember I had said that last quarter was a test for us that can be, delivered that out of our system and we could do that and we could easily see that we are able to align ourselves to that kind of a volume. So, if you take last year's quarter and multiply it would go to about Rs. 2200 crore. We are now at a stage that we have proven that that was not, this quarter also has gone up to 500 plus. As we move forward it will probably go even higher as we move through the quarters.

But now we have a fairly good, what I would call understanding of the speed at which our order book is developing. The speed at which we are able to execute and the capacities not only around creating factories which is also about engineering capabilities our supply chain capabilities. So, we are taking a holistic view and seeing and how through which levers and there are different levers for different capacities. We can actually build our capacity up. One of them would be manufacturing capabilities, it's not the only thing. We have to look at our whole value chain and then decide what elements play out where.

**Levin Shah:** And with existing capacity what kind of turnover can we do?

**Shishir Joshipura:** We actually cannot put a number in the terms of turnover per say, but we believe that it should be able to take care of the, to a great extent our current order book. The capacity expansion which we are talking about is basically to balance what should be outsourced and what should be manufactured in-house. So, that's the reason that rebalancing which we are looking at, and from that point of view and of course looking at the inflow of orders. We decided that we need to prepone the decision of this capacity expansion. And the capacity expansion plant, if it is actually at the planning stage and we decide the proportion between outsourcing and actual capacity expansion. And that's the reason we will not be able to put a right number, right now. Maybe in the next call we will be in a better position to let you know about it.

**Levin Shah:** Lastly you spoke about the kind of inquiries that we are seeing from starchy based feedstock and overall, the trend moving towards starchy based feedstock. So, if you can just throw some light about which are the kind of players or the industries who are putting up a plant? Are these the same sugar companies those are investing or is there some new investors that you are finding over here, in the starchy feedstock --?

**Shishir Joshipura:** The answer is the mix bag, Levin, because we are seeing, even sugar companies putting up dual fuel route plant which has sugar and starchy feedstock. We are



seeing infrastructure companies coming forward and putting up only starch-based feedstock plant. We are seeing some development funds trying to put it. We are seeing some people who are in what I would call as commodity production industries, they are also wanting to come forward and put a plant here.

So, it's a mix bag, what is definite, is that it's no longer only sugar mills who are putting up the plant there are different slew of investors who or coming up with there are companies which are solar development companies who develop solar plants, okay those who are focused on renewable energy development. So, we are seeing a whole array of very new kind of investors coming forward and putting up the ethanol capacities, because one thing is for sure, this is a very definitive solution for combating the climate change and the CO2 emissions.

**Moderator:** Thank you. Ladies and gentlemen that was the last question. I now hand the conference over to the management for their closing comments.

**Sandip Bhadkamkar:** Thanks to everyone for your time today, if you have any further questions feel free to write us as at [info@praj.net](mailto:info@praj.net) and with this we conclude the call today. Wish you a very Happy Diwali and Prosperous New Year.

**Moderator:** Thank you. Ladies and gentlemen on behalf of Praj Industries Limited, that concludes this conference. Thank you all for joining us and you may now disconnect your lines.