

Praj Industries Limited Q4 FY 2021 Results Conference Call Transcript May 07, 2021

Moderator: Ladies and gentlemen, good day, and welcome to the Q4 FY 2021 Earnings Conference Call of Praj Industries Limited. As a reminder, all participant lines will be in the 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 of Q4 & FY 2021 which were announced yesterday. On this call, I have with me Mr. Mr. Shishir Joshipura - CEO & Managing Director and Mr. Sachin Raole - CFO and Director (Finance & Commercial). 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 certain risks and uncertainties. Documents relating to our financial performance were emailed to you. These documents, along with quarterly results presentation have also been posted on our corporate website. I would now like to hand over the floor to Mr. Joshipura for his opening remarks. Shishir Joshipura: Good day, ladies, and gentlemen, I welcome you to Praj Industries' earning call for Q4 & FY2021. Trust all of you had the opportunity to go through our Results Presentation for the Quarter and Year Ended 31st March 2021. It is once again a pleasure to connect with all of you. I hope all of you are doing well and staying safe during these unprecedented times. I am sure you are all observing the fixed guidelines by healthcare authorities and keeping yourself safe. I also hope most of you are in the process of securing vaccines if not already vaccinated. It is a very essential measure that will help us win the fight against the COVID-19 virus.

Let me now briefly take you through the results, an overview of the external environment. I will take you through the quarterly results highlights, industry developments, following which, Sachin will take you through the financials.



The external business environment continued developing positively for most part of the quarter, even as we braced ourselves for the impact of second wave of pandemic towards the end of the quarter. We have learnt to work and live in partially lockdown environment, and there is a broader sense that the economic impact due to restrictions and lockdowns would be moderate compared to impact of the first wave last year. Different state governments have announced lockdown measures in varying degree and tougher restrictions on mobility.

In complete compliance with the directives, we have temporarily closed operations in our corporate office in Pune. Our employees continue to serve our customers working from home. However, our manufacturing plants, R&D activities and sites have continued to function with all due precautions in accordance with the directives from the local authorities. We are better prepared this time compared to last year with significant reduction in number of unknowns and a much better aligned processes and workflows. As an organization, we are significantly healthier with much higher visibility on demand cycle operation, etc.

A normal monsoon forecast for 2021, along with timely harvesting of Rabi crops could further entail a healthy agricultural season, given remunerative crop prices and healthy water reservoir levels, thus boding well for the overall economy.

Coming to the Bioenergy front. In the domestic markets, the center's efforts on expanding the country's ethanol blending program, through supporting regulations and measures continues to drive the demand for ethanol to higher levels, giving boost to capacity expansion in the center. The current blending level for ethanol in India has crossed 7.4% in the first five months of the ethanol supply year 2020-2021. This is the highest ever recorded ethanol blending level at an all-India basis.

Since 2014, we have witnessed the government progressively building upon the country's EBP program, registering an almost a 4x jump in ethanol blending levels in the last eight years. The Government has recently announced advancing of EBP 2020 targets by five years from 2030 to 2025. This is expected to create a demand of additional 10 billion liters of ethanol per annum. In a significant move to encourage ethanol production, the Government further expanded the permissible feedstock by adding starchy feedstocks to the list in the form of surplus grains.

A robust and remunerative ethanol pricing model along with the interest subvention scheme is building a good momentum in creation of ethanol production capacity across the country. To further boost the production of ethanol, states are taking proactive steps aligned to Government of India's National Biofuel Policy 2018. States of Bihar and Chhattisgarh have introduced state specific ethanol production policy to attract investment in the sector.

The recent move to allow the direct sale of ethanol as a fuel for compatible automobiles is further expected to support this demand. Like petrol and diesel, it is now allowed to sell e-100 directly to compatible vehicles. Praj is also thinking on advancing the sustainable transportation reflected in our bio-mobility platform is very much aligned to the thought process. This policy will further add to building up the opportunity for distillery capacity expansion and extended fuel usage across the nation.

The basic change that is being brought about with the expansion of feedstock away from only Molasses C to expand the sugar-based feedstock itself, plus the starchy feedstock in form of different grains and the cellulosic biomass, all these three put together are likely to change fundamentally the industry structure which was either dependent on single feedstock-based and fuel location-based output to a multiple



feedstock round the year, across the country production level. And this is likely to change the industry structure substantially as we move forward.

On the CBG front, in the domestic market, we are seeing positive traction developing. There has been now a notification that is earmarked that CBG produce can now be mixed directly into the CBG networks, and I think that is a very big positive step forward for the evacuation of the gas. And we expect that this and further measures will help to build the overall ecosystem for CBG, which will help develop this business over the midterm.

The RED II directive rollout in Europe, that we have been talking about, it is now around the corner and later this summer in Europe they will be rolled out. And this is expected to drive creation of cellulosic ethanol capacity over the next decade. World Economic Forum constituted an initiative called Clean Skies for Tomorrow, of which Praj is also one of the member. And has submitted its recommended report to the Government for advancing the development of sustainable aviation fuel (SAF) in India. We expect SAF to become an important part of biofuel in country over the five years or so.

Let me now take you through the highlights and the developments for the quarter:

Overall, we believe we have delivered an encouraging and a robust performance. The growth in Q4 was built on top of a momentum that we saw in the last quarter, led by the Bioenergy and Engineering businesses. We have also seen robust order booking this quarter and ended the quarter with a closing order backlog of Rs. 1,748 crore as of March 31st, 2021. Thus, setting a stage for a promising FY 2022. Our Bioenergy business returned a strong performance, reflected in increased business wins. We are seeing development of robust inquiries and leads across different feedstocks in the domestic market.

Praj Technology was selected to set up India's largest capacity syrup-based ethanol plant from Godavari Biorefineries in Karnataka. As part of this project, Praj will expand the existing ethanol manufacturing to 600 KLPD using sugarcane syrup. When commissioned, this will become India's largest capacity syrup-based ethanol plant. The expansion will maintain zero liquid discharge by deploying Praj's patented SHIFT technology developed in our state-of-the-art R&D facility at Praj Matrix. The SHIFT technology is maximizing value for customers by minimizing water and energy footprint.

Over the last one year, the domestic market saw a contracted capacity addition for setting up of 100 crore liters per annum of ethanol. So, we contracted for setting up 100 crore liter of ethanol capacity. And Praj is at the forefront of building this capacity as we move forward.

On the international front, the challenge posed by the pandemic impeded development dialogue in several economies. And the travel restrictions led to an extended timeline for market building activities. The impact of COVID and travel restrictions does have hampered some of these activities as we move through the year. As the COVID crisis begins to taper down, we are now experiencing restart of the paused dialogues on capacity built up an expansion in international markets. We also expect that in the back of the US returning to Paris agreement the carbon intensity reduction programs will come to the forefront and will present a new business opportunity for us.

On the 2G front, execution of the first three plants in the country is on course. Equipment installation has started at IOCL Panipat project. The mechanical



completion of the site is expected in second quarter of CY2022. We expect to commission this plant in Q3 CY2022.

In Europe, Celluniti, our latest offering along with Sekab is finding good traction in forest residue to ethanol space, especially in Nordic regions, and inquiries are progressing very constructively on this front.

On the CBG front, we bagged the prestigious breakthrough order from HPCL during the quarter for setting up the CBG project at Badaun in Uttar Pradesh. Praj is offering its state-of-the-art RenGas process to produce CBG from rice straw using proprietary microbes. The project has a capacity to process 35,000 metric tonnes of rice straw as feedstock and will generate over 5,000 metric tonnes of CBG annually. In addition, the project will also generate 23,000 metric tonnes of high-quality solid bio-manure and over 35,000 metric tonnes of liquid bio-manure for ferti-irrigation. The project has a potential to save over 15,000 metric tonnes of CO2 emissions per year.

We have received a contract for setting up a CBG project for a distillery spent wash in Western India with the capacity to produce 10 metric tonnes of gas per day. Praj is very proud to have bagged project for CBG development from three independent and highest potential feedstocks, namely, Press Mud, Rice Straw and Distillery spent wash. Through these projects, we are contributing towards the Gol's SATAT initiative with an objective to promote CBG as a clean, sustainable, and affordable fuel.

As I speak with you, we will also commence the final stages of commissioning of India's first 200 TPD Press Mud cum Bagasse based CBG project at our customer plants based in Uttar Pradesh. The ecosystem for the CBG is continuing to develop. And we do hope that over a period of time the system will develop and become a robust system, just the way ethanol system is over a period of time.

As for Engineering and PHS business, they have started to witness healthy trend in their chosen market segments, and we expect that momentum to strengthen as we move ahead through the year. The Zero Liquid Discharge water business, the IOCL project execution has commenced. And we also bagged some key orders during the quarter and what was very heartening for us is that many of these contracts are repeat orders from our marquee customers which actually goes to prove that our solutions are finding increasing acceptance with the customers.

On the CPES front, we continue to strengthen relationships with select global technology and EPC players and we expect a significant traction from several of these accounts. The Brewery business, the domestic market has continued to gain status quo with no news capacity being put, bar one brownfield expansion which we are building. We expect domestic demand to return based on the development on the pandemic front. We are beginning to see an increased activity in Africa and expect that our efforts will stay away for a constructive development in the new financial year for brewery business in African markets.

On the PHS front, we are witnessing an increased activity level in entire complex injectable and vaccine space. These are the two spaces where we had positioned our solution very strongly over a period of time. We are now partnering in supplying of critical equipment to several leading players in the COVID vaccine development program. We also see an encouraging development and inquiry from the international front, laying the platform for a strong growth of this business.

On the operations front, a continued and steep rise in input commodity cost, coupled with issues arising out of the pandemic related to migration does pose



challenge in smooth and trouble-free execution. But our teams are focused on ensuring that we iron out those wrinkles as we move ahead. We are carefully monitoring business environment for any demand side corrections owing to the pandemic situation. Although we see no signs of that as of now. We will continue to take all measures to identify risks and their mitigation, ensure the continuity of operations, safety of our people and continue to do our bit in fights to defeat the pandemic.

On the whole, our research, innovation focus-led customer-centric strategy, coupled with very progressive and sustainability focused policy environment has helped build a strong platform for driving company's future growth. Before we close, I would like to share, in line with our dividend payout strategy, the Board of Directors has recommended a final dividend of Rs. 2.16 per share for FY 2021.

With this, I will now hand over to Sachin for his comments on the financial performance. Thank you.

Sachin Raole: Thank you, Shishir. The consolidated income from operations stood at Rs. 567.1 crore in Q4 FY 2021, as compared to Rs. 296.29 crore in Q4 FY 2020. PBT for the quarter stood at Rs. 73.19 crore, as compared to Rs. 31.67 crore in the corresponding period last year. Profit after tax stood at Rs. 52.01 crore in Q4 FY 2021, as compared to Rs. 24.86 crore in Q4 FY 2020.

For the full year ended March 31, 2021, income from operations stood at Rs. 1,304.67 crore, as against Rs. 1,102.37 crore in FY 2020. PBT stood at Rs. 113.11 crore, as against Rs. 83.13 crore in FY 2020. And PAT for FY 2021 came in at Rs. 81.07 crore, as against Rs. 70.43 crore in the FY 2020.

The contribution margin for the quarter has shown a drop of 2.3% as compared to the last quarter. This is mainly because of the sales mix for this quarter, mainly the higher turnover from domestic business which is almost 72% as compared to 69%, and some impact of increase in the input cost. Similarly, contribution margin for the year has also seen some kind of an impact as compared to the last year. The reason being, in the last year we executed high number of service export orders as compared to the current year.

Effective tax rate for the year stood at 28.33% as against 15% of the last year. This year, we are coming to normal tax regime as compared to the last year where we were in the MAT regime. Additionally, the increase in the rate is because of recognition of deferred tax liability on account of certain SEZ benefits which will not be accruing in the next year.

Looking at the complete utilization of MAT credit now, and some benefits of R&D spend and SEZ sales which are going to taper down, our effective tax rate is affected to be in the range of 26% to 28%.

Export revenues accounted for 28% for Q4 FY 2021. And of the total revenue, 70% is from Bioenergy, 22% is from Engineering and 8% is from PHS business. The order intake during the quarter was Rs. 650 crore, with 84% from domestic market. Of the total order intake, 84% came from Bioenergy, 8% from Engineering and balance 8% from PHS business. The order backlog stands at Rs. 1,748 crore at the end of March 2021, comprising of 85% of domestic orders. Cash in hand as on 31st of March stood at Rs. 476 crore.

With this, I will conclude my remarks. Thank you all for joining. We would now be happy to discuss any questions, comments, or suggestions you may have. Thank you.



- **Moderator:** Thank you very much. We will now begin the question-and-answer session. The first question is from the line of Rahul Jain from Credence Wealth. Please go ahead.
- **Rahul Jain:** Congratulations Praj team for a wonderful set of numbers. Sir, I have two questions. First one is with regards to, you mentioned about the CBG plant in the North India being now operational, and you had mentioned in the previous call that North India was supposed to start in April and the Southern India plant was supposed to start in somewhere around June. And based on the working, how the plant is working, what is the customer response, how the entire ecosystem is developing, you see further inquiries coming in. So, with regards to this first plant, which has now been operational, if you could share some feedback as to how the plant is functioning, what is the customer response? And does it give you an indication now that probably more and more inquiries which could get converted now into orders coming in much sooner than what probably you would have expected earlier? That is question number one with regards to CBG.

And second is with regards to the commodity costs which have gone up and they continue to move up in last three, four months also further. We have not seen any impact probably in March, though, our gross margins have come down. But do you see this impact going ahead in the next two, three quarters to come? If you could share something on that. Thank you so much.

Shishir Joshipura: Thank you, Rahul, As I was mentioning, the IPL commissioning has started. And it is early for me to comment yet on its impact in the market, etc., we have to give it some time, people would also like to see performance for a brief period of time before one concludes. But right now, as far as technology is concerned, we are moving in the right direction. And we expect that we will soon be able to establish the full performance, because it gradually builds up over a period of time, that is how the nature of the gas plant is. So, it is on track and developing well. We have also learnt lots of lessons around what needs to be done on the ecosystem. We have been working very closely with Oil Marketing Companies, with the city gas distribution companies, with the customers, with the logistics providers, and it has been a great input and learning that we have received. And I must say that everybody has been responding very constructively and positively. And as the things go forward, probably this is too early for me to comment on whether we are starting to see a flow of inquiries based on this particular plant. So, that's early days for that, but over a period of time we do expect that things would happen and ecosystem development where improvements will help some of the other customers to also witness and make up their mind.

> Moving on to the commodity question that you have got. Yes, the steel price hike is uniformly affecting everybody. So, there are two dimensions to it. On the new jobs, when we go and bid we can definitely factor that in at that moment in time as to what the price is, although they have been really rising at a more rapid rate than one would expect due to different factors. On our existing jobs, it is going to create some impact, no question. Because as we execute and if during the execution itself the costs go up, then they will have some impact. But our team is very focused, very alert, and we are taking measures to see how we can mitigate the rise in costs of raw materials, because there is also a lot of other costs that we have to manage. So, finding a balance between the two is a challenge. But yes, it does pose a challenge as we move forward.

Moderator: Thank you. Our next question is from the line of Bhalchandra Shinde from Max Life Insurance. Please go ahead.



Bhalchandra Shinde: Sir, in our order book regarding Bioenergy, if you can specify what will be our execution cycle and ethanol plant related how much orders will be there?

- **Shishir Joshipura:** So, Bhalchandra, the execution cycle has not changed, it is exactly same what it used to be. Because there is no change that has taken place in terms of any of the factors that would impact the execution cycle, so it remains unaltered between 9 to 12 months, of course, depending on the customer's readiness as well. So, it will continue to be in the direction. Sachin, you want to give out a number on Bioenergy versus Engineering mix.
- Sachin Raole: Sure. I can give that number. Are you interested in understanding the closing numbers, the break-up of Rs 748 crore? So, I can tell you, the number will be around Rs. 1,000 plus crore in the Bioenergy segment, around Rs. 500 crore will be in the Engineering segment, and Rs. 115 crore in PHS.
- Bhalchandra Shinde: Sure. And to install an ethanol plant, it generally requires around 12 to 18 months, then would like to know how our execution cycle is in between 9 to 12 months.
- Shishir Joshipura: No, no. So, I think, Bhalchandra, the question is, it is from whose perspective? So, if I am the promoter of the project, what you are saying is right, because I need to go for an environmental clearance before I start out to order out my plant. So, it does take between six to nine months to get those regulatory approvals, sometimes it can be as long as 12 months. But I am talking about orders on hand. So, once I have the order, then the ECs already exist. So, from our perspective, it would be 9 to 12 months. But you are correct, that if somebody is putting up a project, maybe they will take a longer cycle, no question.
- Bhalchandra Shinde: From 2016 till now, mostly ethanol capacity has quadrupled, I think, but our sales were not increasing. But now actually, again, the capacity addition is there, and we are seeing the jump in order book. What exactly is a change in historical and current?
- **Shishir Joshipura:** So, I think there are two or three factors that we need to take into consideration here. One is that there is a definitive program for improving the ethanol blend in the country and a clear realization that the demand has been now put out, the oil companies have come out with a tender of five years, right, they have already told what the demand is likely to be for the five years that before the E-20 was announced, even before that they had given out a very significant visibility to what is the requirement going to be, and the capacity is short of that. So, obviously, then, capacities will be built based on the demand-supply gap. That is number one.

Number two, and I think that is an important parameter is, also to understand that if you go to E-20, then we are looking at a very different kind of a cycle, because as you would know that today most of the ethanol is produced in just three states of Uttar Pradesh, Maharashtra, and Karnataka. But with the change in the policy on the grain side, by including the starchy feedstock, if we can put a broader name to this. So, there is sugary feedstock, which is all the sugar companies are the natural owners and they will continue to build capacities based on that because of the dynamics that happens in the sugar business. On the other hand, the starchy feedstock actually distributes the production of ethanol across the country in every state. Because starchy feedstocks are available through the FCI godowns in the country. If that is what is happening, then the ethanol capacities will come up in different parts of the country, which will lead to an overall improvement in the blending ratio, because today a lot of logistics distances and management has to be done to move ethanol from three states to multiple states. That is the next one.



And the third dimension that will work is the industry sector itself is undergoing a change. If you look at it from the perspective of, let us just take 24 months ago, almost entire production of ethanol in the country was based on sugary feedstock, so sugar mills were natural owners, and they will continue to do so. The dynamics of the sugar sector has changed, the export subsidies going away, surplus sugar production, very good agricultural crop, and the freeing up of the feedstock. So, if you look at all of these, apart from all the other financial measures that got announced. Then that is driving a dynamic on the sugar segment to set up capacities based on syrup, molasses B, move away from molasses cane. What that means is, more and more sugar is now getting diverted to production of ethanol, it is also a very high value accretive activity for the sugar mills. That is one dimension.

The starchy feedstock on the other hand, will bring in a whole host of new set of promoters, if I can use that word, for the project. You can imagine, we have inquiries from developers of large solar capacities. Because for them, it is a model by which you create a commodity, which is electricity, now it is a commodity called ethanol. Based on a policy or the directives that are available in the ecosystem. So, we will see a completely new set of players also emerge, this could be OMCs, it could be developers, it could be renewable energy focused developers, renewable energy focused funds. So, this could be a very different set of people who will walk in, because the starchy feedstock actually opens up the whole economy to a very different set of dynamics. And that is what is going to happen in India. But not only in India, we are seeing this movement across the world, in several economies, of course, United States walking back into the Paris Agreement is a big, big push, positive push in that direction. We are seeing a lot of activity emerging out of Canada where they have announced a very ambitious ethanol blending program. So, we see constructive developments taking place in different economies on this side, and many governments waking up to the idea that maybe this is a good solution for us to address our energy needs.

- Bhalchandra Shinde: In last year, we had a closing order book of around Rs. 1,000 crore and we ended FY 2021 at around Rs. 1,300 crore. Right now, we have around Rs. 1,700 crore. Can we expect sales of around Rs. 2,000 crore by FY 2022? How much can be the sales target on year end?
- **Shishir Joshipura:** Well, all I would say is this, I have no idea what the equation in your Excel sheet forecast is, but we can put it together and we will show you some part. We will have to see, there are factors, as I was mentioning, we are assuming that the business environment will remain largely unimpacted with this second COVID wave, which is what the indications currently are, but we have to still wait and see. Our focus of course is, as I mentioned, is to increase the throughput of our systems and execute the plans very effectively and at a fast pace. Also, in a very major change that we will witness as we move forward from here, as I was mentioning, is that while the sugary feedstock-based plants are seasonal in nature, so there is some seasonality in the execution cycle. The grain-based plants or the starchy feedstock-based plants, they do not have such a seasonal dividend to their requirements. So, we will see a very different dynamic layout as we go forward, all favorable.
- **Moderator:** Thank you. The next question is from the line of Vikram Suryavanshi from Phillip Capital. Please go ahead.
- Vikram Suryavanshi: Congratulations for a strong performance. First question is basically for how is this progress of around more than 400 projects which are there for the interest subvention? Are we seeing the traction with this tripartite agreement or still they are facing some financial funding issues?



- **Shishir Joshipura:** So, Vikram, thank you so much. I think as I was mentioning, the industry structure is undergoing a fundamental change. And it is no longer just the sugar-based ethanol production story, we are going to see a lot more starchy feedstock-based capacities that come in. The way we will see it is first our inquiry level are to start going up, and that is definitely happening. Our order book has to start building with different feedstocks, that has definitely happened. And for us, the good news is that for us, the starchy feedstock is a story that we have built outside India for many years. So, we have tremendous experience into building of these plants and their performance. So, we expect that, that experience will come to good help for us, for our customers to now start building world-class plants in India based on starchy feedstock as well. So, we are seeing very positive development. Our inquiry levels have more than doubled on the starchy feedstock side, probably more than quadrupled as well. So, we are expecting good and constructive traction on that part.
- Vikram Suryavanshi: Okay. And second question about this increasing the landscape under Bio-Mobility, particularly opportunities in aviation fuel or methanol as a fuel for coastal shipping or inland waterways. Typically, who will put up this kind of capacity or existing ethanol players, with some modification to the equipment, can supply that? Or if you can highlight that. And how our tie-up with GEVO is playing out for global market for aviation fuel?
- Shishir Joshipura: Great question, Vikram. So, on the sustainable aviation fuel side, our technology that we are working with GEVO for, which we have co-developed with them, with a specific focus on the India market. And since we understood the dynamics here, it is an alcohol-to-jet fuel, as it is called ATJ, alcohol-to-jet. So, our effort is that tomorrow if the market were to start expanding for the sustainable aviation fuel, and as we know that there is no electric alternative there on that front, right, you cannot have electricity powered aircrafts flying around. So, for them to overcome the climate change problem and greenhouse gas emission issue, the industry will have to shift to sustainable fuels. And there, the alcohol-to-jet route will play a very big role, because in India, as I have mentioned about that report as well, Clean Skies for Tomorrow, the route of alcohol-to-iet actually utilizes the current infrastructure that we have so strongly in place with our sugar mills, the ethanol production plants that are set up with them, the grain-based plants that we come up, all of them will become the feeder plants. So, it will be a different molecule of alcohol that we produce in these plants. And it is a two-stage process, and then the refineries will refine that alcohol to the aviation fuel step. So, two stage process, but very, aligned to what our current infrastructure is. And we are developing this technology with a view that our existing customers should be able to accommodate with minimal modifications and start producing the required alcohol variant as and when the opportunity opens up.
- Moderator: Thank you. The next question is from the line of Viraj Mehta from Majama Investment. Please go ahead.
- Viraj Mehta: Congratulations on excellent set of results. I wanted to understand what is the current target market size is and how it will evolve in the coming years between starchy and sugary feedstocks?
- **Shishir Joshipura:** Okay. So, as I said, if we have to meet the EBP 20 target by 2025, we have to add 1,000 crore liter of capacity into the system. Nearly 60% and thereabout, you can say two-thirds, 60% to two-thirds, in that range will come from starchy feedstocks, and one-third will come from sugary feedstocks, with additional capacity.
- Viraj Mehta: What is the current payback period for a customer starting with starchy feedstock production?



- **Shishir Joshipura:** Well, there are factors, for example, the land cost, the proximity to the markets, the cost of capital to an organization which is different for different people, the capacity itself of the plant. If you put up a larger capacity plant, obviously it is more attractive payback period. So, it varies, in some cases it could be three years, it could be five years of that order, depends on different factors.
- Viraj Mehta: Lastly on capital allocation front, how do you perceive the excess capital considering we are having strong free cash and idle cash on the balance sheet?
- **Shishir Joshipura:** So, first of all, we are very happy that we are in a situation that we have cash on balance sheet, and we are not looking at raising any debt of any kind. Number two, as I was mentioning, as we move forward, a lot of development will take place on the Bio-Mobility platform itself. I think one of the previous questions was around what happens to bio-methanol, what happens to sustainable aviation fuels, and a lot more that we already laid out the platform for. So, we will have to see what kind of investments we would need to put on the technology side to be able to be ready for driving the change, for making it happen and being at the forefront of it, which has been our legacy so far. So, I think we have to have a judicious understanding of what kind of expenses we will need over what period of time, and we will take the correct call on that with respect to that.
- Sachin Raole: And the projects are also under execution. So, we had to execute all the order book of Rs. 1,800 crore, which we are sitting on. And naturally on the basis of payment terms, we have received the advances against those. So, naturally some portion will go for working capital also for that matter. So, what Shishir mentioned is on the investment on the capital side. But second thing which we will have to also keep on investing into working capital, which we will be requiring for the execution of these projects.
- **Moderator:** Thank you. The next question is from the line of Achal Lohade from JM Financial. Please go ahead.
- Achal Lohade: My question was in terms of the capacity, what is the total installed distillery capacity in India? And how much of that is based on grain and sugar?
- **Shishir Joshipura:** We can probably send you that information, because I need to give an exact number on those. So, because this depends on the feedstock that the companies have opted for etc. But most of the capacity today on the ethanol side of the equation is sugary feedstock, because there was no policy around starch-based feedstock, and ethanol production thereof. So, whatever production that we see today of 350 crore liter, 400 crore liter, that is coming out of sugary feedstock. And today, the grain capacity that exists in the country is mostly used for potable and other higher use alcohol and ethanol production, but now it will change.
- Achal Lohade: Certainly. And in terms of the capacity, this 400-plus applications which the government approved for the interest subvention, what kind of capacity do you see are getting actually added given the issues they are facing, whether it is land or environmental clearance or other funding? What kind of capacity addition do you foresee in next, let us say, three years or so? And how much of that would be sugary feedstock?
- **Shishir Joshipura:** Let me put it like this. So, if we look at FY21, if you build all the capacity in the country, nearly 100 crore liters of capacity will get added for different feedstocks. Now, on the other hand, if we are to meet the EBP-20 program in 2025, we have to build 1,000 crore liters. That is a second viewpoint for you. We are going to add 100 of that, maybe our competition adds, we are two-thirds of market, so they will add 40 odd crore liters of their plants as well. So, if we have to add another nearly



8x, 9x more capacity to this. And I said that we expect as we move forward, twothirds of the capacity will be built around starchy feedstocks and one-third will be built around sugary feedstock. And by the time we reach 2023, as I mentioned earlier, we would have also proven on the ground the cellulosic ethanol for which we are building these three plants, so cellulosic feedstock-based ethanol. And I think that is when we will also start to take that notice, because that is a very different proposition, and I was mentioning the RED II program in Europe which is actually focused on cellulosic feedstock. So, we will have to look at these different dimensions of how they play out. In India, only in India, we expect a lot more capacity to get built up based on starchy feedstock and a little less on sugary feedstocks as we move forward. Already sugar is at a very big base.

- Achal Lohade: If I could ask one more, just a clarification, in terms of the blending, there is slight confusion in general in terms of the existing vehicle, how much can they take without any equipment issues or with certain replacements?
- Shishir Joshipura: Pardon me, I will have to give a slightly longer answer to this question, so understand this. So, I was attending a talk from the Brazilian authorities, and as you know that they are the leaders in this field in the world. They have demonstrated that they have gone up to 27% blend with no change, with no change in the vehicle best they had gone to 27%. But that is what they have achieved. I am saying, on the other hand, if you look at what is required to be achieved, there are two dimensions to this. One is, when I blend, if I am an automobile manufacturer, and if I know that the fuel is going to be E-20, then I can tune my engine at E-20. What does E-20 mean? E-20 allows me to go to much higher compression ratios without the problem of knocking, because there is this great oxidation agent with a high-octane number called ethanol present in the mix, which raises the whole mixture of ethanol octane number. But if I do not have that information, then I have designed my vehicle for E-0, if I can use that word, that is for the normal petrol with a lower compression ratios, because I know that if I go for high compression ratios, then I will not be able to operate my vehicle.

So, it is also a matter of striking of having a uniform availability of fuel across the country, designing a vehicle to that so that we can directly leverage the whole potential of the fuel that is available. In absence of that, you will have a vehicle which is designed for a fuel which will work for nearly same fuel but may not be able to scale up to the best possible performance level, which may be better than what it is currently. So, that is one dimension. Second is, I think up to E-15, at least for sure, there is no change that may be required in most of the vehicles. And I am saying this based on my knowledge of my past job that, that may not be required. Beyond 15, 20, there may be some changes in the gasket, etc., that may be required, but no fundamental change that will be called for, unless you redesign the vehicle to take advantage of this higher-octane number, etc.

- **Moderator:** Thank you. The next question is from the line of Bhagyesh Kagalkar from HDFC Mutual Funds. Please go ahead.
- **Bhagyesh Kagalkar:** Sir, two questions, one is on the RCM opportunity. Can you throw more light? And secondly on the CBG front, see, now in blending of ethanol we see a lot of traction. On the CBG front what is inflection point now that we have set up first CBG plant and the Government is talking of big numbers on CBG plants all over India.
- **Shishir Joshipura:** So, Bhagyesh, good questions, as usual. RCM, I think we need to understand, this is a different stage. So, the first part of the RCM is the core products that will come out of our cellulosic ethanol system, the 2G plants that we are commissioning. And now we have developed two and some more are in the pipeline; So, we have developed two very strong co-products that could be of great use for the country



and for the industry. You know we have developed a co-product called bitumen. Bitumen is completely imported today in India. But now we have developed a process that can take the lignin and valorize to produce the bitumen. And it is currently under testing. So, when that happens, that becomes a very good source for country to substitute an imported product. There is another one called lignosulfonates, that also we are developing. Today also the country is importing this. Lignosulfonate is a material that is used for concrete mixing, when you build concrete from cement, this is the element that actually holds the moisture and the cement together. So, that allows the bonding to take place between water and cement in the different elements. So, two examples I gave you which will start production. There is a co-product cycle of RCM that will go out in the field and that will help our customers, existing as well as the new ones. Then, there is a whole range of products that come out because we have been looking at microbial activity, we have been looking at our ability to look at different molecules, and there are products in the pipeline that will come to start to roll out and there is a suite of them that will come out. And then of course there is a third one, the big frontier, which is what happens in the bioplastics and upwards states. So, different stages of development right now for different products. And we will keep talking about them at the appropriate time. That is on RCM.

On CBG inflection points, I think as I said that we had to commission the first plant and run it successfully to understand the whole ecosystem. So, this part of technology, but more than technology, I think, also how the rest of the elements of the ecosystem work, the CBG system, the oil marketing companies, the retailing at the pumps, the vehicle population change over, how people will switch over from diesel to gas, because there is a substantial price difference at the pump between the diesel and the gas, and so on. So, there are different perspectives that will have to be built in. I think, what is happening currently is, A, it is moving in the right direction. It is still early days to say will it start to develop into the Rs. 175,000 crore opportunity that the government has eventually planned for. But I am sure that this is a very important first step in that direction for us to demonstrate that it works. It works and these are the financials and that is how it works. And I am sure that that is something that we will know during this quarter. And from there, we will build. So, early days of CBG yet, very promising outlook based on what has been announced so far at an umbrella level. But I think we will have to connect the ground relative to that, and then see how it goes.

- **Moderator:** Thank you. The next question is from the line of Sujit Jain from ASK Investment Managers. Please go ahead.
- Sujit Jain: Congratulations for an excellent set of numbers. Shirshir ji, I had two quick questions, CBG opportunity you just spelled out. What incentives would be needed to democratize it outside of the oil and gas refineries and marketing players? And in terms of risks, what happens when crude oil prices go down if ethanol pricing is linked to crude? Does that change the economics across cycles? The players, will they be able to make money? And what are your thoughts about terminal value of fossil fuels? Because government, at the same time, is pushing EVs as well.
- Shishir Joshipura: All right. So, let me start. So, first and foremost, I think what is important is, on the CBG side, as I was mentioning, the retailing of the energy at the automotive end in the country today, is managed by oil marketing companies. And now we have a new set of players, especially in terms of the city gas distribution companies. And there is a big push, as you know, to set up the city gas distribution network. And I think that is a huge plus for CBG businesses there. In a recent policy announcement, the government has said that this gas will be blended into the CBG network and then the APN pricing network mechanism will take place of pricing at the end user end. So, very clearly a push saying, no, we have to go sustainable. See, we are not a country that is levying a carbon tax or anything like that, but



these are the policies through which you can actually ensure that the right energy sources are put to use for the carbon perspective as well.

Moving from ethanol to crude. In India, it has been clearly spelled out so far that the pricing of ethanol is not connected to the crude oil price. For two reasons, I think, one is, it is distillery farm community connected prices. Because what do we have in abundance, we have in abundance, and who is larger stakeholder for us is the farmer and the agricultural producer. And we are not a country which has been gifted the crude oil reserves that you dig a hole, and you find crude oil, that is not the case for us. So, obviously, our environment on the policy, our environment on the entire mechanism that is rolling out, will have to get anchored itself around the agriculture dimension of the thing. And over a period of time, world over, crude oil is not going to be, it is not a long-term fuel that everybody's betting because of the associated problems of GHG emission etc. So, so far as it remains connected to the agricultural benefits and the farmer and feedstocks pricing thereon, I do not see a problem for ethanol in India at all. I think there has been more than enough indication and support and actual rollout in that direction.

In terms of the vehicles, I think what we have to understand is that, and I am very happy that you asked this question. So, we mentioned about the platform called Bio-Mobility, what does it mean? What Bio-Mobility platform says is that we should create sustainable fuels that will reduce the carbon footprint and will be sustainable in long-term for the automotive vehicles. Now, if you look at biofuels, what is actually happening with biofuels is, we are using existing infrastructure, we still use an ICE engine, and I think it is a huge point that we need to take note of as a country. ICE engine and a typical car, an ICE engine-based car has 17,000 parts. And electric car has 700. So, remember, 700 versus 17,000. The 17,000 parts are made across, that is how the automotive value chain is, there are all part makers who make them. Today, we employ nearly 10 million people who are dependent on these parts being made. When you bring in biofuel, all of them stay in the supply chain, without exception. But you bring an electric vehicle, most of them will vanish. One big news. So, we do not want job destruction, we want job creation, we want the job protection, and we want value addition. So, ICE engines stay, you use the current infrastructure for distribution and retailing. So, no big investment in that dimension. And most importantly as I said, you do not change the user habits at all. I and you as users do not even notice this, right. We just go to same petrol pump, we still fill it up, and we drive our vehicles. So, it is not changing the user habits at all. And that is a big plus in favor of biofuels.

On the other hand, will there be electric vehicles? Sure, there will be electric vehicles and they will co-exist. I was just reading some news today, if you take time out of the equation in the world, the total number of electric vehicles sold in the world last year was about 5 million or so, China is another half, so equals 10 million. If you compare it to the total vehicle production in the world, it is still a very miniscule number, it is rising fast from starting from zero. But if this is so, it will coexist, it will come into the play, it will have its own market. But for India, I think we need to ask different set of questions. We cannot do what Sweden or Finland can do. Our economic dimensions and compulsions are very different.

- Sujit Jain: The technologies developed so far, are they all in-house or there were some royalty payments, tie-ups, etc.? And in future as well, the technologies that you are talking about, which will get developed, any tie-ups, basically in terms of what is the impact on the P&L?
- **Shishir Joshipura:** So, let me answer by saying, first of all, we are extremely proud of the fact that we have our own R&D, we have a state-of-the-art R&D center, which is absolutely world-class, and so recognized in the industry segments globally as well. And we have invested our time, effort, money, sweat, blood, tears, everything, our passion,



our commitment into developing our own technologies, and that is what we have been rolling out in the marketplace. We also realized that as we go forward and more of our interactions starts to take place between different platforms like biology and chemistry, IT, services, and so on, we cannot say that we know it all. So, we will have to collaborate. And I think that is a good way to grow for any organization, that we bring our strength to table, somebody else's strength comes, and both together becomes, one plus one becomes 11. So, that kind of collaboration we already have quite a few, GEVO, Sekab, DVO, and we will bring them to table as and when that is required. And of course, if people bring their own technology, there will be, what I would call, a common suited remuneration for all of them. None of them is going to be such that they will impact our P&L or anything like that. To the contrary, by combining two technologies and bringing it forward to a better level, we will actually be able to do better.

- **Moderator:** Thank you. The next question is from the line of Raj Rishi, an individual investor. Please go ahead.
- **Raj Rishi:** Just wanted to find out, like if you are talking about this opportunity being so big in ethanol and later on in CBG also, don't you think that lot more players will come, so what is the moat which like Praj would have, can you just comment on that?
- **Shishir Joshipura:** Okay. So, the opportunity is so big, and I was saying that surely competition can walk in, but what we have invested in technology development, what we have invested into our customer relationship, and most important, what is our track record, that is not something that one would be able to copy overnight. At the same time, I always believe that this opportunity is big and some competition coming in is always good, because that actually proves that the market is really expanding, it is attracting players, there are more people than us who are also seeing the same story that we are seeing. So, I think from those perspective, it is a good thing to happen. Competition also drives innovation, so that is a good thing to happen. But having said that, I think for anybody to come anywhere near what we are today, they will have to have an equal pedigree at the back end to be able to command equal, I would say, share or respect in the market. So, we are very proud of what we have developed over a period of time. Not easy to copy.
- **Raj Rishi:** So, I had heard an interview of yours, maybe months ago, in which you had talked about this incremental 1,000 crore liter which would be required for this 20% blending in the next four or five years. Of which like you said the outlay would require around Rs. 1 lakh crore, for Praj, the addressable opportunity would be around Rs. 14,000 crore. So, do you expect that kind of order book for the next four, five years? When you see the run rate improving to those kind of levels?
- **Shishir Joshipura:** So, Raj, so those numbers are valid, we have begun to see the traction being built. I was mentioning in an earlier question, there is doubling the level of inquiry itself already. We are currently contracted to build 100 crore liters capacity in the country. So, it will start, and our numbers are reflective of that. So, as the capacity starts to get built, we will have to see how that number plays out. But definitely, we are very confident that on the ethanol side of our story, we are looking at a very really definitive period of time where capacity building up will take place and we will have a very major role to play, because we are the leaders in the business.
- **Raj Rishi:** You said around Rs. 14,000 crore for you, as per present estimate of yours?
- **Shishir Joshipura:** As I said whether that Rs. 14,000 crore plays out in four years or six years, that time will tell. So, I will not be able to look into crystal ball over that period. But yes, those numbers are valid, and we expect that if the current momentum continues, we will start to see convergence of those numbers happening.



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

- **Bharat Sheth:** Congratulations Shishir bhai and Sachin on excellent performance. And I believe the traction which we were expecting has started, I mean, from this quarter end. Now, I have a question on the domestic side on the CBG, we have OMC is one of the key players in a whole ecosystem. And with this RenGas process we have got an order from HPCL. So, if you can elaborate where there are also a lot of by-products so how do we perceive this order? And how does it really benefit us in over a period of time? And the second thing on the Engineering which was a small piece of the business so far has now started contributing, and where we have taken a lot of action in the past. And third, in your opening remarks stated on RED-II policy, so if you can elaborate a little more on that.
- Shishir Joshipura: Okay. So, Bharat bhai, on the CBG supply chain ecosystem developing, I think it is very important and it will have to be demonstrated over a period of time. OMCs will remain a very important player in the whole chain, because at the retail end of the supply chain they are the ones who the actual vehicle users will connect with, I and you. But CBG is also finding a very big traction now with the CGD networkers as they are built over a period of time. The city gas distribution systems, so CBG chain on the supply side, OMCs will have a big role to play on the retail side, the CGD network coming into play. And that is what I was mentioning earlier as well that the ecosystem development is critical for any product to reach its end consumers or targeted consumers, and I think we are learning that that is something that will happen. The push is in the right direction, but then it will take some time to build, but it will definitely be moving in the direction.

On the Engineering part of business, as you mentioned, yes, we have been talking about it that the Zero Liquid Discharge business of ours, Praj High Purity systems, these are the businesses that are really beginning to gain traction now, because there is also an equally big concern now, the regulations are there, the corporates are more aware, they are more conscious about not letting out any effluent liquid out of their operations. And I think all of that, if we look at it from those perspectives, I think it is very, very important part of many process plants, the large industry to set up zero liquid discharge systems. And I think that is where we have a significant role to play. We are also beginning to see good traction building up, as I was mentioning, about Praj High Purity system business, where we have been focusing on complex injectables as a space to hone our offering over a period of time. And with the advent of the vaccine capacities in the country, and we are part of many of those efforts now. We are seeing a good traction build on complex injectable space and vaccine space and our play there in as well. So, good times going forward for PHS as well.

Brewery currently not much can be said. We have a dominant position in the business, but right now the business itself is not moving because it is a pandemic impacted industry. So, as, and when it comes back, surely we will have the role to play there as well. And there we are also focusing right now, as I was mentioning, on Africa as a market, because that is where we see some capacity building taking place. And we are beginning to see a traction built there as well. So, overall, CPES business, as I mentioned, we have been investing into our relationship with some leading organizations in the world, and some of the big players in the respective industrial segments. And we are expecting the story to turn as we move forward in the future period.

On the RED II policy, as I had mentioned, we expect because of the pandemic the rollout got delayed. But we now expect that in this summer we will see the rollout taking place for RED II policy. What it fundamentally says is that moving forward, all the future blending will be focused on cellulosic ethanol or second-generation



ethanol, so obviously a lot of capacities will have to come up. We are already in dialogue with a few organizations there who are thinking slightly ahead of the curve, and who are talking about setting up capacities. So, as that development takes concrete shape, we will definitely brief you. But that is a big opportunity. And we expect that over the next 10 to 12 years, almost 30 to 40 plants will come up of different capacities to address that opportunity in European market space.

- **Bharat Sheth:** This order from OMC based on rice straw so, how do we really see this order over a longer term playing out for us, what exactly it can demonstrate for Praj?
- Shishir Joshipura: There are two basic pit stops as we know today, and there will be more as we move forward. But as we know today, one is the press mud that comes out of the sugar mills. And the second is the rice straw in a big way. There are other agriculture residues as well and other wastes, but I think these are two big ones that we see, others will also start to add to the queue. It was important for somebody to set up a rice straw-based plant of ethanol, it is not there anywhere in the world. Somebody has to put up a plant, it was a competitive bid that we bid for, there were other companies that were competing, and we won the contract because of the fact that we were able to showcase a much higher performance on rice straw. We will have to build that; it is under execution right now. But sometimes in the first quarter of the next calendar year we will see that plant come to commissioning. And then it will be a clearly demonstrated proof of what can happen out of rice straw. If that happens, already there is a big movement right now out of state of Punjab, where Punjab Energy Development Authority has already awarded several contracts and tenders and licenses for rice straw-based gas production. So, we do see a good traction buildup over the year on that one. Because we have feedstock is abundant, which is a good part. And that to me is the critical dimension.

So, I think what is important is to stay focused on the opportunity, make sure that we have the right installations and references, and we work with the leaders in the field. And we are working with several other different kinds of players. There are ESG funds, there are renewable development companies, there are individual entrepreneurs and there are very different dynamics of the customers who are going to put up the CBG plant. So, different dynamics for people who will eventually sell the CBG, because that obviously is a very different ballgame, the CBG network and oil marketing companies, retail outlets and things like that. So, this is why I said, that this is an ecosystem under development. That is not the case for ethanol, right, the ecosystem already exists in a very defined way. But that is a very old industry as well. So, we expect that as the ecosystem starts to take roots, this opportunity will also start to take shape in a good way.

- **Moderator:** Thank you. The next question is from the line of Sandip Sabharwal from asksandipsabharwal.com. Please go ahead.
- **Sandip Sabharwal:** I just wanted to understand that for a similar sized plant, let us take, 100 KLPD plant with feedstock as either a sugary or starchy waste feedstock or cellulosic, so for a similar sized plant, what could be the cost differential in them?
- Shishir Joshipura: So, see, on sugary based feedstock, because it is captive feedstock, the dynamics a little different. And as opposed to starchy, because starch is not a captive feedstock for most of the people, it is not a captive feedstock, so different dynamics there in terms of handling etc. Also, the capacities are different. So, for example, if you look at a sugary based, now the capacities are going up because of the sales, etc., coming into play, but there are plants with 60-100 KLPD kind of capacities. But we do not expect ethanol and starch combination to be at that level, we expect that more plants, there will always be a small capacity plant built because of



	different considerations. Therefore, for example now, many sugar companies are also saying that can I have a bolt-on module for using starchy feedstock in the non- sugar season, non-seasonal period. So, then they can decide either to turn down the capacity or can build the same capacity bolt-on on the grain plant as well. So, they use some of the infrastructure that exists for the sugary plant as well. So, there are different combinations, I will not be in a position to give you a number saying, you know what, 100 KLPD is X for sugar and Y for starch, that may not be the right way to look at it, because there are various different considerations to this dynamic.
Sandip Sabharwal:	But can we say that for a starch-based plant the costing will be higher than for a sugary one?
Shishir Joshipura:	That is correct, that is generally correct.
Sandip Sabharwal:	And when do you think your first of the second-generation plants will start producing?
Shishir Joshipura:	I had mentioned that, that we are completing this in the second quarter of next calendar year, and by third quarter of next calendar year it should be commissioned.
Moderator:	Thank you. The next question is from the line of Gautam Rathi from CWC Advisor. Please go ahead.
Gautam Rathi:	So, I just wanted to understand, so if you look at your revenue overall, and as we understand your revenue, it mainly has two components, one is basically the CAPEX part which the customer does, and then there is some which is basically the revenue recurring item, which is basically the AMC or the consumables which we sell to them, right. So, if you can just give us some colour, what would be the mix in the CAPEX and the consumable part? Like if I take your revenue of this quarter of, say, Rs. 600 crore, what would be the mix? And if you can give us some examples as to what kind of consumables are these? In what processes these go?On the second part, if you can just help us understand, so if you get a CBG project of Rs. 35 crore or Rs. 40 crore, what do you think would be the future AMC probability for that what we would get, say maybe Rs. 1 crore worth AMC contract for maintaining those plants. So, if you can just help us understand.
Shishir Joshipura:	Okay. So, on the first part. I am understanding the spirit of the question saving.

- **Shishir Joshipura:** Okay. So, on the first part, I am understanding the spirit of the question saying, what part of your business is addressing customers' revenue side of expense as opposed to CAPEX side if I understand your question correctly.
- Gautam Rathi: Yes, perfect.
- **Shishir Joshipura:** So, at a very broad level, today the revenue side of business for us today is of the order of maybe around 7% of our sales. It is not a large number. We are understanding that maybe there is a very different way of focusing on this business and increase this business. That is one of our plan as to how do we do that. Because we have realized that if we position it differently, it adds tremendous value to our customers, and I think from there we should be able to move it forward. In terms of the Rs. 35 crore plant or any CBG plant that we will put up, what are the future AMC revenues? I think it depends, I am sorry to use this word depends, but what the feedstock is, so different feedstocks may have different potential. But typically, each of these plants can represent to us a revenue potential of depending maybe Rs. 1 crore, Rs. 2 crore, Rs. 1.5 crore, in this range per plant per year.



Gautam Rathi: Okay. And also, can you just help us understand, so there is this Bio-syrup technology, right? So, we understanding that in that technology also, you also add some consumables which you give it to your customer, right?

Shishir Joshipura: Yes.

- **Gautam Rathi:** And is it a very large component, because you have to store this syrup for a longer time, right, because these are generated over three, four months, and you have to store it for the whole year or, say, nine months. So, is it a large component, this consumable? In terms of revenue, I am asking.
- **Shishir Joshipura:** So, the storage that is required is to ensure that the syrup does not degrade. And we have to ensure that when we take it, because during the season nothing will happen, but post season, as you rightly said, five months of sugar season are over, if I am trying to produce ethanol in the 11th month of the sugar season, then how does the syrup behave? And I think in order to ensure that this whole feedstock is unadulterated, is still at its good quality, it is still able to produce the feedstock in a good sense of way, so it depends on what capacity of syrup you put up. And there are many dimensions with which part of the country we are putting it up, how many months of sugar season that is there. And I think the first plant that we are demonstrating at a commercial scale is currently they have finished the syrup storage, so the bio-syrup making, and now they will start to use it over a period of time. So, we will have some more information as we move forward through the year on that one. And then probably I will be able to share that with you.
- **Gautam Rathi:** So, how are you looking at this part of the revenue which is basically more on the OPEC side over the next five or maybe 10 years, how do you look at it? So, are you planning to scale this up and are there some efforts being taken on this part?
- Shishir Joshipura: I think what we are seeing now with this increased activity and the role of microbes or microbiology into this whole value chain, a lot of opportunities will open up for us and we are cognizant of that. And I think we have decided that we will start to work on creating a very focused business around, if I can say, service side or revenue side of customers model, there the three levers that we want to use. One is, of course, entire these microbiology-led additives, performance enhancers and that dimension into the business. The second is going to the O&M services that we will provide to our customers. And the third is, we have launched a very ambitious program for digitalization, where we will be able to bring a remote performance monitoring and enhancement system to our customers, where we will be able to look at different dimensions of plant performance and go on a proactive fashion to customers and say you can intervene, we can stop this failure from happening or we can debottleneck this or we can stop this cost from leaking from this point, and so on. So, there will be a whole host of services that will emanate out of this. So, these three we will combine and take it forward as a very focused business vertical, as we move forward during the timeframe that you mentioned.
- **Moderator:** Thank you. The next question is from the line of Saket Kapoor from Kapoor & Company. Please go ahead.
- **Saket Kapoor:** Sir, as you said that the way forward would be the starchy based ethanol rather than the sugary based. So, how are these existing potable alcohol players your prospective clients? And what kind of retrofications are applicable in case in their plants so that they can simultaneously produce, or they can shift to ethanol direct instead of the ENA trajectory? Since it attracts a lot of state levies, so how does this math hold sir?



Shishir Joshipura:	No, I think the potable alcohol is a very different segment, ENA segment is very different, there is definitive market out there, right now it is a bit subdued because of the lockdowns and things like that, but otherwise there is a definitive market out there. So, there will be people who will keep on serving this segment. So, there is a definitive market and there is a definitive demand, so I am sure at that kind of price point it is pretty impressive right now. So, that's number one. I think number two, which is equally important is, the ethanol production out of starchy feedstock, and that is a different cup of tea. So, I do not know whether an ENA producer would like to stop producing ENA and go to ethanol production, but there are a lot of projects that are coming up where people are asking for both, ENA as well as ethanol, and
	that our technology permits.

- **Saket Kapoor:** My question was that only that the existing potable alcohol players are having the feasibility and can easily go for the same because they have the feedstock ready and the experience with them. So, that is good proposition for them?
- **Shishir Joshipura:** Yes. So, as I said, it depends on their contract, because as you can summarize, the end users or their customers, what kind of contracts they have with them, what capacities they have to serve. But if they want, they can add a section to the plant that will allow them to produce ethanol. When they set up a new plant capacity also you can think of having both possibilities.
- **Saket Kapoor:** Okay because the procurement is assured by the OMCs. You have told that geographically there are only three states contributing maximum amount of the sugar-based ethanol part, so can any potable alcohol player having the grounds can come up with a starchy capacity, can that could be a good visibility for them?
- **Shishir Joshipura:** Yes, what you are saying is valid. So, obviously their experience of handling the whole starchy feedstock and the management of thereof, so they understand that I think you are very correct. As engineers speak, technically their plans for ethanol and the ENA are slightly different some stage onwards, there is commonality and then there is some stage that differ. But you are right, the experience will come in very handy, so they can all be the future ethanol producers as well. And that is what I was alluding to that the industry structure will change. Today, ethanol production is dominated by sugar companies. As we move forward, the industry structure is set to change, there will be another new player that will come in, especially on the starchy side of the feedstock, the developers, the ESG funds, the renewable energy development companies, the OMCs, the ENA producers, so there are very different set of customers who will come into the play and it will no longer be only sugar producers who will be producing ethanol.
- Saket Kapoor:Rs. 1,770 crore is the order book as March 31, 2021. So, considering the execution
cycle, the second half generally looks the bulky one in our engineering
organization, and the first half is slightly more sober. So, sir, is this the same
timeline depending upon the execution which you are going to do for the first half?
Or this time the screen will look rather tapering off then which was for the last year?
- **Shishir Joshipura:** So, actually we do not want a steep curve that we have to climb every time, that is not a good idea, because then we end up using our resources inefficiently. But this time our focus is to even it out as much as we can, I am not saying that we will even it out completely, that is not possible, because also we are in a growing demand arena. But yes, it is much smoother than it has been in the past, if I can use that word.
- **Saket Kapoor:** If you could quantify just for the January, February, March quarter, how much have been the net order addition out of the total order.



- Sachin Raole: For the last quarter, total order intake was Rs. 650 crore.
- Saket Kapoor: And we have an execution of Rs. 550 crore?
- Sachin Raole: Rs. 540 crore, that is right. You are right.
- **Moderator:** Thank you. The next question is from the line of Kedar Kailaje from Fortress Group. Please go ahead.
- Kedar Kailaje: So, my first question is in terms of the overall ecosystem, and in particular about the feedstock availability for either CBG or ethanol. So, is the feedstock available continuously? And is there any issue in procuring the feedstock? And what is the cost of the feedstock for either CBG or ethanol projects?
- Shishir Joshipura: So, for ethanol, the feedstock supply chain is very well established, because sugar mills do continue to get the sugarcane and there onwards. And now, as we were mentioning, if I just look at it from an ethanol perspective, the feedstock definitions have changed. What used to be only a molasses-C where all the sugar is extracted and then what is left was given for ethanol production. Now, lots and lots of sugar companies are also opting for making the juice and then taking it directly to ethanol production without sugar production in between. So, different companies have different strategies depending on their market and their understanding of their product mix requirement. So, that is one change that is happening, that we are seeing a lot more syrup-based capacities that are coming up for ethanol, as opposed to only molasses-C based. Molasses-B already a lot of capacity has moved to that. So, different feedstocks there. So, for them, and the pricing is decided based on what is the FRP or MSP for sugarcane, and there onwards the whole block. On the grain side, government has already specified the grain prices, ex-FCI godowns. And there is a corresponding ethanol price. If you do not buy from there and buy in open market, then there is a different pricing. So, different feedstocks, different sources, different ethanol price points.
- **Kedar Kailaje:** Okay, thank you. And my second question would be in the HPCL project, and Godavari Biorefineries projects that you have done. Could you please share the contract value in rupee terms? And also, for the HPCL project, that can produce about 5,000 tonnes of CBG by processing 35,000 metric tonne of feedstock, so that is about 15% gas yield. And I also read that IOCL has set up a CBG plant in the south in Tamil Nadu. So, that can produce 15 tonnes of CBG from 290 tonnes of feedstock per day. So, that is about 5% of gas yield. So, is it true or is it right to say that your technology, that is RenGas technology can produce maybe double of what the other technology can? Or am I wrong in my calculation?
- Shishir Joshipura: So, rather than making a bold statement saying we are double to everybody else, we are saying, yes, the numbers that you gave does show that, and we are very confident of what we will produce. It is from our current understanding really a benchmark yield because nobody, no one is anywhere near us. There are other technologies which are slightly better than the ones that you mentioned. But overall, our process is very efficient. And that is what I was mentioning in my earlier answer to one of the questions that once they get established at a commercial scale on the ground, then probably it will completely change the dynamics of this space. We have to wait for that. Right now, we are able to demonstrate this, we are able to claim this, we are able to guarantee this, but people sometimes also want to see. So, we are running a demonstration plant here in our R&D, which is a reasonable size, where we will be able to showcase to customers. But right now, of course, there are a lot of restrictions on travel etc., so people are not able to travel. But other than that, yes, we are very confident that our technology is absolutely and by a long margin, best-in-class yield.



Kedar Kailaje: Could you share the contract value for the HPCL and Godavari projects in terms of rupees?

Shishir Joshipura: No, we are not at liberty to do that.

- **Moderator:** Thank you. The next question is from the line of Nimish Sheth from GT Advisory. Please go ahead.
- **Nimish Sheth:** Congratulations for an excellent quarter. My question is also on the CBG, you could not share the value of the contract, could you give us an idea at what revenue such a project can generate? Just a ballpark number for the person who puts up such a project, 5,000 tonnes of gas and the subsequent bio-fertilizers, approximately.
- **Shishir Joshipura:** So, I do not have a calculator in front of me. So, Rs. 46 to Rs. 47 a kilo is the gas price. 30% of the gas revenue will come from by-products, so that you can add to that. That is a rough number.
- **Moderator:** Thank you. The next question is from the line of Rohan Advant from Multiact. Please go ahead.
- Rohan Advant: Sir, when we talk about CBG, can the existing distribution network be used for CBG? And in terms of end uses, be it automobiles, be it CNG or be it industrial use of gas, can our CBG be used for all those end users? So, how is this ecosystem on a downstream basis, I understand the upstream sort of feedstock-led issue, but on a distribution basis, how is this ecosystem currently?
- Shishir Joshipura: Yes, Rohan. So, CBG can go and substitute entire CNG. So, that is 1:1 substitution, no problem at all. The second is, CBG is a more efficient form of CNG, so in whichever way you are using CNG, if you use CBG you are likely to get about 10% higher efficiencies compared to what you get with CNG. So, that is the second part. The third, when we were talking to OMCs, they made us understand that it takes about 6 to 12 months for an ecosystem to develop around it. But once the gas starts to become available, people start to convert their vehicles, because it is very cheap, you pay nearly Rs. 80-90 bucks for diesel at the pump, this is at Rs.55-56 in that range, so there is a clear distinction between the rate that you pay for diesel versus gas, so that pushes a lot of people. And the conversion kits come up, they are limited by the availability of the gas on which the CBG is coming to different locations, very localized, I think a lot more churn is expected, and a speed is expected in conversion as well.
- Rohan Advant: Okay. Sir, so an existing CNG car can be filled with CBG?
- **Shishir Joshipura:** Yes, actually, it is much more efficient than CNG. You get more mileage, which is critical to every Indian user, it gives 10% more.
- **Rohan Advant:** When you sized up the opportunity as Rs. 14,000 crore, that is the potential revenue that 20% blending will create. Is that the market potential and Praj will get the market share of that or is that an opportunity that Praj will generate?
- Shishir Joshipura: No, this is the size of the market that we can address.
- **Moderator:** Thank you. The next question is from the line of Levin Shah from Value quest Investment Advisors. Please go ahead.



- Levin Shah: Congratulations on wonderful set of numbers. So, my first question is on this order booking. What we have seen, so like you have been alluding to this in past few quarters that enquiry levels have gone up substantially, and they were in fact double versus what we had previously. And if you look at our order book during this quarter, that is reflecting the same in the numbers now. So, we have received around Rs. 550 crore of order from Bioenergy versus like Rs. 200-250 crore quarterly run rate that we were doing. So, do we feel that this enquiry translating into order book has already started happening from this quarter? And going forward this trend should continue?
- **Shishir Joshipura:** Yes, that is our expectation, because if all of these statements are true that we have to have 20% blending by 2025, that means 1,000 crore liters, that means 400 plants sanctioned by government, feedstocks, and therefore so many inquiries, and people have received to put up the capacity because the demand is definitely there, so yes, it should.
- Levin Shah: We all know that commodity inflation is something which will impact everybody. And also at the same time, if you look at our business mix, our exports share as a percentage of total is going down. So, do we see that the margins overall will remain at the same level? Or is there any scope for improvement from here on?
- Shishir Joshipura: Levin, as you rightly said, it is a mixed bag. I mean, it is not that we are shrinking in export market, it is just that domestic is currently seeing a big boom, that's number one. Number two, as we go to the starchy feedstocks, we expect that our margins will get better in domestic market as well, compared to sugary feedstock. So, that is the second one. Third is, what happens to the mix at what different moment time, size of project, capacity of the project, there are different dimensions. And of course, the commodity prices. So, no company can be left untouched if there is a steep price hike, right. And to some extent, over a period of time, we will be able to absorb and manage it and pass it on to our customers. But there could be a brief period of few contracts where we will not be able to do that, so may be in short term commodity prices we may not be able to pass on to our customers, but in long term, definitely yes.
- Levin Shah: So Godavari order that we have received, we have announced that order in the month of April, so that is not part of our existing order book as of March, right?
- Shishir Joshipura: No, it is.
- Levin Shah: We have announced that in the month of April.
- Sachin Raole: No, the order was for March itself, announcement came in the first week of April.
- **Levin Shah:** Okay, so that is already reflecting in our current order book?
- Sachin Raole: Yes, that is right.
- **Moderator:** Thank you. The next question is from the line of Rajesh Kothari from AlfaAccurate Advisors. Please go ahead.
- **Rajesh Kothari:** Sir, I have two questions. First is, you mentioned that total current ethanol capacity in the country is about 350 crore liters. And also, you mentioned somewhere that you have added 100 liter, and let us assume competitor about 45, so that comes to 145 crore liter. So, are we trying to say that one year back the total ethanol capacity in the country was only 200 crore liter?



Shishir Joshipura:	No, no, what I said was, the current capacity that we are able to supply is of the order of 350-400 crore liters, currently the supply is already there, so it is being produced in the country. And what I said was that if I look at my order book, what orders I booked in the last financial year, and I convert all of that to capacity on the ground, that will add 100 crore liter capacity on the ground. And if you look at market share dynamics, and I say, okay, if we got 100, our competition all of them put together will be about 40 crore liters. So, country is contracted for setting up adding capacity of 140 crore liters on ground to the existing capacity. What we
	adding capacity of 140 crore liters on ground to the existing capacity. What we need to add is 1,000 crore liters. So, that is the number.

- Rajesh Kothari: What is the current installed capacity, it is 350 crore liters, am I right?
- Shishir Joshipura: Yes, roughly.

Rajesh Kothari: So, 350 crore liters you are saying is existing capacity, plus 140 crore liters is already ordered during last 12 months or so.

- Shishir Joshipura: Another 1,000 crore liters needs to get added, not total, so the delta capacity.
- **Rajesh Kothari:** For 1 crore liter capacity, what is a typical size of order for us?
- Shishir Joshipura: No, that is difficult for me to answer, the reason being, it depends on what is the stream, so is it molasses C, is it B, is it syrup, grain, so different capacities, different feedstock plus brownfield versus greenfield, debottlenecking, there are many factors that go to decide the capacity per liter. So, that would be a difficult number for me to give out. But, what we have said is this 1,000-crore liter is about Rs. 14,000 crore opportunity for the company to address.
- **Rajesh Kothari:** This opportunity of Rs. 14,000 crore what we are talking about, and whatever last year what we have booked, that segment goes into which segment, Bioenergy, or Engineering?
- **Shishir Joshipura:** No, that is Bioenergy.
- **Rajesh Kothari:** How do you see the scope of the engineering segment over the next two, three years?
- **Shishir Joshipura:** That's what I was mentioning in my earlier answer, that we are looking at progressive growth there as well, the Zero Liquid Discharge systems, so we are very positive and optimistic about the fact that that is something that will get built up. Our Praj HiPurity system, which is serving this whole vaccination and complex injectable chains in the pharmaceutical space, that is looking at a decent growth territory. We are looking at our CPES business, which serves the customers, large engineering, and technology companies outside India, they are on a decent path. So, those are the engineering businesses. Except Brewery, which currently we said that because of the situation in the country, we do not expect new capacities to be built, at least not in the foreseeable future. So, that is the one that will take a little time to build up, otherwise all of them are on the path.
- **Moderator:** Thank you. Ladies and gentlemen, that was the last question for today. I now hand the conference over to the management for closing comments.
- Sandip Bhadkamkar: Thanks, everyone, for your time today. In case you have any more questions, you can write us at info@praj.net. Once again, thanks a lot for your time and have a nice day. Thank you.



Moderator:

Thank you. On behalf of Praj Industries Limited, that concludes this conference. Thank you for joining us. And you may now disconnect your lines.

Disclaimer - The following transcript has been edited for language and grammar; hence it may not be a verbatim representation of the call.