

**Praj Industries Limited**  
**Q3-FY22 Earnings Conference Call**  
**February 09, 2022**

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**Moderator:** Ladies and Gentlemen, good day and welcome to the Praj Industries Limited Q3 and 9M FY22 Earnings Conference Call. 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 the operator by pressing “\*” then “0” on the touchtone phone. I now hand the conference over to Mr. Anuj Sonpal from Valorem Advisors. Thank you and over to you, sir.

**Anuj Sonpal:** Thank you. Good afternoon, everyone and a very warm welcome to you all. My name is Anuj Sonpal from Valorem Advisors. We represent the investor relations of Praj Industries Limited. On behalf of the company, I would like to thank you all for participating in the company’s Earnings Conference Call for the Third Quarter and Nine Months ended of Financial Year 2022.

Before we begin, I would like to mention a short cautionary statement. Some of the statements made in today’s earnings concall maybe forward-looking in nature. Such forward-looking statements are subject to risks and uncertainties which could cause actual results to differ from those anticipated. Such statements are based on management’s beliefs, as well as assumptions made by and information currently available to management. Audiences are cautioned not to place any undue reliance on these forward-looking statements in making any investment decisions. The purpose of today’s earnings conference call is purely to educate and bring awareness about the company’s fundamental business and financial quarter under review. Now, let me introduce you to the management participating with us in today’s earnings call and give it over to them for opening remarks.

We firstly have with us Mr. Shishir Joshipura - CEO & Managing Director and Mr. Sachin Raole – Chief Financial Officer & Director of Resources. Now I request Mr. Joshipura to give his opening remarks. Thank you and over to you, sir.

**Shishir Joshipura:** Thank you, and good afternoon. I welcome you to Praj Industries earning call for quarter three and nine months of FY22. Trust all of you had the opportunity to go through our results presented for the quarter ended 31st December 2021. I hope you and your families are keeping safe and healthy. Let me now briefly take you all through the quarterly business highlights and industry developments, following which Sachin will take you through the financials. Recently concluded COP26 Summit in Glasgow has brought a renewed focus on

environmental issues and a dire need for climate action. Several nations have pledged net zero targets and have committed to energy transition in a constructive way. COP26 was a step forward in creating awareness and generating momentum towards sustainable climate action. India announced its climate commitment referred to as Panchamrit, that plans to bring down carbon intensity requirement by more than 45% by 2030. While achieving net zero by 2070. Inclusion of energy transition and climate action in the Union Fiscal budget of FY22-23 as major pillars of development is highly encouraging from our business standpoint. We believe that the efforts towards sustainable climate actions with focus on carbon intensity reduction will go a long way in India's journey towards net zero target.

The budget has taken due consideration of both, it is the labor intensive informal sectors like MSME as well as capital intensive thermal sectors. CAPEX allocations are proposed at an impressive 4.1% of GDP and around 35% more over last year, which augurs well for propelling growth. We are very happy on inclusion of future impacting dimensions on sustainable development in this union budget. Introduction of additional excise duty on unblended fuel is a welcome step in landed overall direction of low carbon intensity economy. The budget also mentioned that green bonds will be issued for mobilizing resources for green infrastructure, which will help in building infrastructure for low carbon economy.

Let me take you through the market updates. On the Bioenergy front ethanol blending program continues to gain momentum in line with five year roadmap achieving E20 by 2025. India has achieved highest ever ethanol blend of 8.1% in 2020-21, with around 90% ethanol supplied from sugary feed stocks. The OMCs have tendered for ethanol requirement of 459 crore liters in the current ethanol supply year and have issued letters of intent for 369.4 crore liters as on January 16th. To match and fulfill the requirement of deficit state OMCs have released separate tender for 95 crore liter quantity of ethanol on 31st of January 2022. To give further encouragement for diverting excess sugar to ethanol, the government also hiked the price of ethanol extracted from sugarcane by up to 1.47 per liter for 21-22.

DSPD announced availability of 17 million metric tonnes of surplus grain that can be used to produce ethanol in what is seen as a big push. Government has given green signal to 196 green based ethanol projects amounting to ethanol production capacity of almost 859 crore liters per annum. As we go forward, some further favorable developments are expected in form of flex fuel policy, ethanol blending in diesel expansion of biofuel basket across different modes of transport and feedstock differentiated investing for ethanol. On the international front, the European Commission has revisited this existing energy transport and climate legislation in order to align them with the goal of achieving carbon neutrality by 2050. According to the suggested amendments of RED2 advanced biofuels will have a 2.2% contribution of transportation sector by 2030. That's the total EU production capacity for all advanced biofuels is likely to reach 2.75 billion liters in 2030. This translates to an opportunity of setting up around 100 2nd generation ethanol plants of 200 KLPD capacity each.

Moving on to business updates, we signed an MOU with IOCL to explore opportunities in cleaner and greener sources for energy. Together, we will explore avenues such as production of alcohol to jet fuels, 1G and 2G ethanol, compressed biogas and related products. We will jointly work towards forming a 50:50 joint venture and identify partners to form special purpose vehicles under the proposal. We are very excited with this assertion and believe that this will accelerate the development of biofuel ecosystem in India. Our bioenergy business continues this strong performance with a very healthy order book exceeding 600 crores in this quarter two. There is a strong momentum in the market for the capacity creation for ethanol based on starchy feedstock. Ethanol plants based on starchy feedstock continue dominance with order intake with around two third of our order base.

In December 2021, we launched an innovative solution to process sugarcane juice into a new sustainable feedstock BIOSYRUP for round the year ethanol production. Praj's first of its kind patented technology producing BIOSYRUP for successfully demonstrated during the launch ceremony held at M/s Jaywant Sugars. Sugarcane juice is a perishable and seasonal feedstock that cannot be stored for more than 24 hours. But if converted into conditioned BIOSYRUP, it has a storability for up to 12 months. This facilitate sugar mills to produce ethanol beyond sugar season thus helping increase production capacity and maximize revenue. There's been a lot of excitement for BIOSYRUP globally, especially in Brazil.

On international front, we are beginning to see good momentum building South and North America for setting new capacities for ethanol production. Successful commissioning of two Pharma-grade alcohol plants in North America, America will pave the way for new business opportunities in the region. On the 2G front execution of IOCL project has progressed to 80% completion level and the execution is on track as per the plant. On the international front, our Celluniti™ Technology has attracted attention from several customers in Europe and discussions have advanced with investor group in Nordic region for deployment of this technology.

On the CBG front, our two projects based on press mud as feedstock are commissioned and currently undergoing scale up and stabilization. The government has withdrawn subsidy for setting up of CBG plants. Different industry associations have already made submission for its restoration. On the positive side, gas prices are due for revision in April 22 which will enhance financial viability of the products. As per the engineering and PHS business we are seeing continued momentum by way of healthy order book and improving inquiry basket. The zero liquid discharge business continues to find strong market traction in the metal sector with a very large order win from a metal major. We see this repeat order gain from one of the leading Indian conglomerate as a testament of our technology and delivery capabilities. On the CPES front business has built a robust order book and a healthy profit base. Our team is successfully implementing F16 strategy to work with a select group of progressive 16 global customers resulting in preferred supplier status and a partner of choice. Modulization is fast

gaining acceptance with global customers and is clearly emerging and growth engine for the business.

Our growth strategy to become a go to company for modularization in Greentech and CleanTech segment is holding forth. We have specially set up a center of excellence for modularization which aims to offer innovative modularization solutions and partners in energy transition. We executed a very large modules order during the quarter, which will be part of world's largest blue hydrogen project. We also won a repeat order from one of our key MNC customers for setting up an LNG plant in United States. This order holds great significance, as first phase of this project was executed by Chinese suppliers. And our win is reflective of China plus one strategy, which helped us to succeed in securing phase two of this project.

On the brewery front, initial signs of renewables are visible. However, major greenfield investment decisions are getting deferred. In this quarter while we won several orders for brownfield expansions and our apple juice concentrate project is expected to be commissioned by end of this quarter.

On the PHS business front, we continue to develop on steady state growth. Leading pharma companies are realigning their portfolios to include complex injectables, and our prowess is evident through a large order win for process engineering and equipment supplier in this space from a leading pharma company. Our offerings are finding high acceptance in biopharma space from customers both in India and abroad.

On the operational front, we're very happy to announce that in the first nine months of FY22, we have already crossed order booking, sales and profit for the entire year of FY21. We continue to witness rising commodity prices, longer delivery cycles and logistics challenges. We have taken several steps such as real time costing, advanced procurement of critical raw material, development of dedicated engineering vendors to name a few. To deal with the situation. Even though we have learned to live with the pandemic, its resurgence in the last two months has posed several operating challenges.

Overall, there is a robust inquiry pipeline and sustained momentum in order wins. Our order book is continually building positively providing sustainability and visibility to our business. On the back of these developments, we are considering strengthening our execution infrastructure by financing our manufacturing capacity, plant modernization and digitalization. As a sustainable climate action company through bio economy, Praj is contributing to conserving the environment. Bio-Mobility™ platform of renewable transportation biofuels solutions help sustainable decarbonisation, while Bio-Prism™ portfolio of technology solutions for renewable chemicals and materials such as carbon recycling. As mentioned in last quarter, the ethanol production capacity of plants using Praj ethanol technology reached over 10% of global ethanol production, including China.

On the basis of installed capacity of bioenergy plants worldwide, and I invite you to have a look at this. We have commissioned Praj climate action meter, based on the farm to wheel principle, which this meter dynamically concludes CO2 equivalent emissions disclosed globally using our technology. By the end of 2021 we have contributed to savings of 9.8 million metric tonnes of CO2 equivalent emissions, including 2.7 million metric tonnes in India. We have a continued focus on co-product development as part of our Bio-Prism™ platform of technologies. Our Praj matrix team has recently dispatched a trial shipment of 1.5 tonnes of our patented rice bran wax to one of the MNC chemical major. Rice bran wax is a natural wax that is a variety of application in personal care, pharmaceutical and edible coatings. Our trial shipment will be used for test marketing purpose and further developments are awaited.

Overall our business environment is developing favorably and we remain confident of positive business traction across different business segments. With this, I will now hand over to Sachin for his comments on the financial performance.

**Sachin Raole:**

Thank you Shishir. Just to give you an idea about the operations. Total income from operations for the quarter stood at Rs.585.64 crore as compared to Rs.347.78 crore in Q3 FY21. Delivering a growth of 68.4%. EBITDA grew by 28.1% stood at Rs.51 crore as against Rs.39.78 crore in the corresponding period of the last year. PBT came in at Rs.50.25 crore in Q3 FY22 as compared to Rs.38.78 crore in Q3 FY21 up by 29.6%. Profit after tax stood at Rs.37.05 crore in Q3 FY22 as compared to the Rs.28.16 crore in Q3 FY21. For nine months FY22 income from operations was Rs.1504.31 crore as against Rs.737.57 crore in nine months of FY21 up by 103.9%. EBITDA for the period under review stood at Rs.127.7 crore as against Rs.44.16 crore for the corresponding period, PBT stood at Rs.126.83 crore in nine months FY22 as against Rs.39.92 crore in nine months of FY21 and PAT stood at Rs.92.60 crore in nine months of FY22 as against Rs.29.05 crore of nine months of the previous year.

Export revenues accounted for 17% of Q3 FY22 and of the total revenue 76% is from bioenergy, 15% from engineering and 9% from the PHS business. The order intake during the quarter was Rs.956 crore with 80% coming from the domestic market. Of the total order intake 64% came in from bioenergy, 30% from engineering and balance 6% from PHS business. The order backlog as of December 21 stood at Rs.2605 crores comprising of 78% of domestic orders. Cash in hand as on 31st December stood at Rs.488 crores. With all this I will conclude my remarks. Thank you all for joining and we would now be happy to discuss any questions, comments or suggestions you may have.

**Moderator:**

Thank you. Ladies and gentlemen, we will now begin with the question-and-answer session. The first question is from the line of Bhagyesh Kagalkar from HDFC Mutual Fund. Please go ahead.

**Bhagyesh Kagalkar:** I have two questions over here. One is the finance ministers announced that they'll be extra Rs.2 per liter charge on the unblended fuel. Now, as far as the petrol is concerned, there should not be much difficulty barring some parts of the country or for private OMCs to procure ethanol, but on the diesel front what is the situation and in diesel, we are also working on our solutions which we have stated earlier. And secondly, on the margin front, can you throw more light for next one or two years, trajectory of the margin. Thanks.

**Shishir Joshipura:** Thank you, Bhagyesh. So on the unblended fuel side, as you said that yes, to the extent that the fuel that is being sold at the pumps, if it is blended with ethanol as we in the coming year, it will not attract but the important thing is, is not so much about will it attract or not the understanding is and government is clearly signaling, its intention to make sure that we move to a low carbon intensive economy and this Rs.2 charge is actually indicative of that. And from that perspective, it's a very, very welcome step. This is first step in that direction, but we are very happy with this, the government is clearly indicating that the future is based on low carbon intensity fuels and obviously, the moment that statement is made biofuels have a very, very important role to play across a segment. So that's one part. There is no program currently in the country on diesel blending. So there is no ethanol blending going on in diesel, we are working yet and when the technologies finally reach the state of BS6 engines also being approved as a part of the BS4 are already tested and approved, we are still working on that program and we will let you know. So, as of date there is no blending of diesel going on with ethanol in the country.

**Shishir Joshipura:** And on the margin front?

**Sachin Raole:** Yes, on the margin front, we are maintaining from the beginning of this financial year that there will be a pressure because of the input commodity prices which are having an impact on the overall margin one and two, if you see the composition of our sales, the export and domestic the proportion has completely changed as compared to the last year our exports were almost 29% and today we are having 10% and that to on the expanded top line. So naturally it is having some impact on the overall margin. If you look at, question is on the going forward yes as we mentioned in the opening remarks also they are taking several measures to work on the margin front. We have taken multiple actions to take care of increasing prices. And the new order book which we are booking we are naturally booking considering the current impact of the input cost but of course it depends how the input cost is going to behave going forward. If it again rises completely the way in which it has seen in the last nine months to 12 months, then the story is different, but we are trying to get this margin story under our control.

**Bhagyesh Kagalkar:** But the first part of my question sir, the diesel, next five to 10 years, what is the trajectory, in petrol the solutions are there that can go up to 100% flex fuel also, but in diesel there is a difference in the biodiesel and the e-diesel. So, what do you think will happen in next five to 10 years in diesel?

**Shishir Joshipura:** So, the idea to understand is that if we have to blend ethanol into diesel, the normal diesel that is available, we can go to a level between say 5% to 8% of blending and we know that diesel volumes are almost three to four times of petro volume. So even at that it will represent creation of e-market equivalent to the entire EVP 20 market. So, from that perspective business demand will go up, we then of course will have to look at other dimensions also as to what the feedstock sources are and from which source all we produce, et cetera. So, those are the questions that you get answered as we move forward.

**Sachin Raole:** So, Bhagyesh what Shishir was making a mention about, this is how the diesel scenario is looking like at this point of time, yes there is no specific policy announcement which has been made, if you are asking from the Praj perspective, we are working on how to have ethanol blending to happen in the diesel. So we are trying to keep our self-ready moment there is any development on the policy front for diesel blending also.

**Moderator:** Thank you. We'll move on to the next question that is from the line of Vikram Suryavanshi from PhillipCapital India Private Limited. Please go ahead.

**Vikram Suryavanshi:** Just to get more clarity on order inflow, how will the traction or have we factored in the order from this BIOSYRUP from Jaywant Sugars order inflow. Just to understand like, is there any big order which has really changed or how we see the traction going ahead?

**Shishir Joshipura:** Yes, so Vikram thank you. So, if you look at the quarters order booking almost around 600 odd crores is coming from the ethanol parts. But even at that strong order book, we are seeing that 20% of this comes from our export order booking so that augurs well for the business. So that's a positive development that is taking place. On the BIOSYRUP side, we just launched it last, toward the end of last quarter. So we have to wait and see there is a lot of dialogue that has started with customers, we just launched this technology. And I'm sure that as we move forward, we will see traction build on BIOSYRUP base enquiries as well. But this order book has no element of BIOSYRUP in it at all.

**Vikram Suryavanshi:** Got it, just to take it further on technology side we have very well equipped in terms of handling any raw material and now the government support particularly from sugar side like B-Heavy as well as digestive juice and BIOSYRUP, I was just looking at the opportunity can we take it further to the next level particularly on sugar side, because most of the production expectation from sugar side in terms of ethanol are coming close to 7 billion liters kind of annual supply. But is there any further scope to where we can work on the raw material side for sugar companies like beetroot or sweet sorghum and really increase our theme base and expand that capability to produce much more ethanol from sugar side any thought on that side?

**Shishir Joshipura:** So, Vikram obviously very clearly we have to look at multiple levers if I could mention that way. So say a sugar company can decide that it wants to add another feedstock to its process

plant for production of ethanol. So that's one way they can go to a dual route if we can call it. Already we are beginning to see that the leading sugar companies already customer powers they are already putting in addition to the sugary feedstock, they're adding a starchy feedstock drain to the plant to utilize it for the full year, BIOSYRUP makes it possible for companies to actually year round production based on sugary feedstock itself. We already have plant working on beetroot in the world. So for us, given our prowess and our exposure to the international market, having different feedstock is actually a plus, and we are already seeing some movement in the direction. So obviously the first sugar plus starch feedstock. And as we move forward, we'll see some of these combination play out as well.

**Vikram Suryavanshi:** Okay. And last question from my side, about this IOCL JV you talked about, we already have a tie up with Gevo for a sustainable aviation fuels. So how that IOCL will be basically in structure and who will be the developers in this case. And if we can get more clarity on basically, how whole things will pan out with IOCL and Gevo and sustainable aviation fuel and other products?

**Shishir Joshipura:** So Vikram the technology being offered is the same technology that we talked about between Praj and Gevo. So that's a technology that is being brought forward. The MOU that we have signed with IOCL is broad based around biofuels. So it covers aviation fuels, it covers 1G and 2G ethanol, it covers CBG and other byproducts. So it's a much larger scope of under the umbrella of the MOU. How the exact model will work out is fundamentally we have said that both Praj and IOCL will explore forming a joint venture which is 50:50, joint venture between Praj and IOCL. That, in turn will look for setting up these capacities for biofuels across this entire spectrum that I mentioned to you about. And obviously there'll be an operating partner as well, that will come into play. You will hear about it as we make further progress on this.

**Moderator:** Thank you. The next question is from the line of Deepesh Agarwal from UTI AMC. Please go ahead.

**Deepesh Agarwal:** My first question is, in the past you have highlighted that India required some 10 billion liters of ethanol to reach that 20% mark. So out of this 10 billion liters, how much at the industry level have been already ordered?

**Shishir Joshipura:** You are saying how much of the total ethanol is ordered out of the 1000 crore capacity that we talked as incremental capacity to be built, is that the question?

**Deepesh Agarwal:** Yes, in terms of capacity. So to reach the 20% blending target, how much of the ethanol capacity is yet to be ordered simple question?

**Shishir Joshipura:** As of now, about 30% to 35% of this capacity has been ordered out. It's not built yet it's ordered.



**Deepesh Agarwal:** I understood. And our share in this would still be 60%, 65% market share?

**Shishir Joshipura:** Yes, that is correct.

**Deepesh Agarwal:** Okay. And sir with the incremental order coming more from the grain to ethanol do you think that realization per order will be on an upward trajectory?

**Shishir Joshipura:** So, the point is as I was mentioning in my earlier answer also, we have to see starch is a feedstock but if it gets as an add on to an existing sugar base plant, then the capital outlay is different. If it's a completely greenfield project then the capital outlay is different, if it's a brownfield expansion the outlay is different. So we'll have to see in what form the final capacity has actually turn up, but depending on what's the basic construction plan brownfield, greenfield an add on trend, it will determine the overall capital outlay for the plant.

**Deepesh Agarwal:** Okay. And sir can you give us some sense on how much of your bio energy would be coming from bio CNG or 2G on the order book front?

**Shishir Joshipura:** Sorry, could you please repeat your question?

**Deepesh Agarwal:** How much of your order book on the bio energy could be coming from say, bio CNG or 2G ethanol?

**Shishir Joshipura:** In the quarter our entire order booking is on 1G.

**Deepesh Agarwal:** Okay. And sir last question, can you help us understand what is the extent is the impact of commodity prices on the margin?

**Sachin Raole:** So, the overall impact on the margin because of the commodity prices is around 2%.

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

**Saket Kapoor:** Sir, firstly you have explained the impact of higher raw material prices in the lowering of margins. So, firstly how is our raw material basket composed of as the key element and how are we, are we doing any back to back arrangements for procuring the raw material with the intake of products or how are we covering the same to protect our margins, what steps are we taking for protecting the margins going forward?

**Sachin Raole:** So Saket, there are several levers that one would use for managing the margins, but what has happened in the immediate period that we are talking about and maybe some more time to come, is the fact that there has been a runaway and a much faster acceleration in the price rise of the basic commodity like stainless steel, mild steel, and that rate rise has been much

more significant if it is a one point rise one can manage through the costing, but if it is a continuous rise as you execute through the order then all the cost come, contracts are not variable price contracts, they are fixed price contract, that's number one. Number two, when that acceleration happens then the only place left for it to be eating away from your margin. And we understand that but these are as I would call it, these are the transient factors, at some moment in time in two quarter, in three quarters, they will start to even out what's important is what do we do next and that is where very important is #A, we need to therefore be very, very innovative in our technology, on technology development that is what we are focusing on as I mentioned, we are doing real time costing and engineering to ensure that we as close as possible to the contracting, we are able to manage our cost points, we are doing several other levers on standardizing, on mass customization to ensure quick throughput and therefore, reduce the cycle time of execution. So that the exposure time gets reduced, there are several levers that we are using, that we will continue to use in terms of a back to back agreement, the metal producers in the country have their own business model of engagement and selling and there is no such thing as protection against future prices on steel. So we'll have to do contracting based on and we are doing, we are doing several of that as well to buy in advance of looking at our order book how much of steel can we buy in ahead of time, but then it has all other issues because there is cycle time issues, there are inventory issues, there's cash flow issues. So, we are finding a balance between all of these factors to see and minimize the impact of these runaway commodity price increase.

**Saket Kapoor:**

Sir, if we see your raw material to sales ratio it is varying, it has increased from on a quarter September quarter of 64% to 68%, so sir on a normal trend, what should be that and depending upon also on the composition of your order book, if you could give a trend what should be the ideal raw material consumption to the revenue ratio?

**Shishir Joshipura:**

So, Kapoor as we mentioned, because we are project engineering company from that perspective, every two months or three months the models don't change for us, but the mix may have a change because that could be a quarter in which international sale is higher another quarter sale is higher. But overall as Sachin was explaining, we are seeing that in this entire year. We see a two percentage point difference arising on account of the impact of these raw material increases on our bottom line.

**Moderator:**

Thank you. The next question is from the line of Pragati K from Nine Rivers. Please go ahead. As there is no response from the current participant we'll move on to the next that is from the line of Kunal Sheth from B&K Securities. Please go ahead.

**Kunal Sheth:**

Sir my question was regarding the CBG opportunity. You mentioned that the subsidy has been withdrawn. So, any specific reason why this has been done because this sounds quite counterintuitive, because when this was announced that they want to move it 5000 plants and share of gas to increase in the overall energy basket, this seemed logical thing to do. So, why suddenly this change in stance is what, if you can throw some light on this?

**Shishir Joshipura:** Yes, so Kunal you're absolutely correct, it is counterintuitive and that's what I said that a lot of representation is already made, the government is also an impending price point change, end of March for CBG, because the initial price point that were declared were only up to 31st of March. And we have seen how the gas prices have only headed Northwards for the competing fuel baskets. So, we are now awaiting what happens to the prices it should be moving positive as well. So what happens whether there will be a price adjustment to take care of these, we'll have to see as time unfolds, but the industry associations are dialoguing with the government to understand what are the next steps that they would like to define to ensure that the policy goals are fulfilled.

**Kunal Sheth:** Okay. And so how does the subsidy effect the viability, I understand that the pricing will be revised upward and gas prices are going up? But in a steady state world, if the subsidies are taken out, how should it impact the viability of a CBG plant?

**Shishir Joshipura:** It does impact the IRR of the project there is no question. And in an immediate impact people will have to revisit their decision-making criteria as to what they will do, however what is also happening is that, we have to see in terms of the IRR for the project can also be then offset by higher revenue realization. On the other hand so, there are different drivers and as I said end of March is when we expect. That's number one. Number two, there is also a positive news on the co-product side because that the fertilizer that comes out is a co-product of this process has also found a very good traction, and it's found a much higher price than what was anticipated because the quality of the fertilizer is very high. So, eventually it will be settling down of all these factors, what happens to gas price, what happens to co-product price. And, that will have to be settled. But yes, a small bit of uncertainty but we do expect that in next one quarters time that should get cleared up.

**Kunal Sheth:** Sure. Sir my second question is pertaining to competitive intensity, if you can throw light on how is the competitive intensity while Praj has been the dominant player and clearly benefiting from this transition. Have we seen especially in the lower ticket sizes of orders, the competitive intensity rising in some of the local players being much more active than they were previously?

**Shishir Joshipura:** So, Kunal as you said as the sizes opportunity increases to a very, very large pool, it does attract higher competitive intensity, for obvious reasons that there is much more food to eat. So from that perspective, it does attract higher competitive activities. The key question is then over a period of time, one has to start getting selective because when this kind of an opportunity opens up, then can also end up having a customer very, very careful about who are the customer segments that you try to address and work with. And that is the kind of focus that we are trying to bring to ensure that we don't end up addressing every single inquiry that comes our way to ensure that there is always this debate between what happens to the share versus what happens to your pricing power. So, but more important is to ensure

that we continue to work with customers who value our technology. And there is a space for everybody, in my opinion in a very, very fast and large expanding market.

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

**Sagar Kapadia:** Sir our other expenses they just shot up from 73 crore to 121 crore. So any specific reasons for the same?

**Sachin Raole:** So the other expenses has a component of your site related activities. So in this quarter, there was a higher activity which has happened on the site, one element and if you're comparing with the last years December number, YTD number so naturally last year the travel restrictions were there so people were not traveling. So other expenses were also not taking place. This year naturally it is back in the action. So the components which are sitting in other expenses are mainly related to site activities which were heightened during this quarter.

**Moderator:** Thank you. We'll move on to the next question that is from the line of Lokesh Maru from Nippon India AMC. Please go ahead.

**Lokesh Maru:** My question is more around the order inflow. So, basically given the size of opportunity within ethanol that is there let me discuss before it was the CAPEX requires around 40,000 crores within this space and Praj is leading clear in that with major market share. So, going forward, what is your outlook given our order book, given the opportunity size the 900 crores of quarterly inflow that we have seen this quarter. So this is the highest inflow, but do you see this as a starting point in the entire cycle of opportunity do you see you are at the mid of that opportunity or is it a peak, how would you portray would you expect a higher inflow going forward or would you expect somewhere in this range any outlook or any comments on back front?

**Shishir Joshipura:** So, Lokesh and thank you for a very detailed question. Yes, you're right, we are witnessing a clear surge in demand for capacity creation for ethanol based at the back of the EBP20 program. And the order booking is reflective that's why if you see the order book developed over the last four quarters it has continuously been increasing. And as I've mentioning in the earlier part as well, that we are right now at 35% of the capacity has been ordered out so we are still to go to almost 60% odd capacity to be built. The question is, how will that 60% capacity we build, for example, if the sugar companies decide to divert sugar, that means they directly convert from let us say and again from syrup to ethanol or from molasses to ethanol, we'll have to see how these equations play out to actually arrive at a number in terms of what crores of rupees will actually get spent on the capital side, will they add as I was mentioning earlier an additional train for managing grain during the link period or a none or off season. So several of these how, in what combination this plays out is very difficult to

predict. But, I would say that we are not at the beginning of the cycle. But at the same time we are somewhere 30%, 35% progression of the site.

**Lokesh Maru:** So 60%, 65% is actually yet to go right?

**Shishir Joshipura:** Yes.

**Lokesh Maru:** So this 900 is not really a feed, but we can expect much more going ahead for FY23, because the entire opportunity is passed within, until FY25. So that opportunity will be seized with next two year, is that understanding correct?

**Shishir Joshipura:** Yes, so the government goal is set by FY25 we should have 20% blending which would mean the 1000 crore liters to be additionally produced in the country. And as we said that this will gradually play out. So by 25, we need to have that capacity built you're absolutely correct.

**Lokesh Maru:** Right, okay. And another question on micro part actually, we were discussing a small sugar company. So do you mentioned that they're able to complete somewhere around 200 KLPD expand their existing Greenfield, where it's able to do brownfield and incremental cost of 110 or 120 crore for 200 KLPD. So, I wanted to understand is it possible to keep the boiler capacity as it is intact and just change on the distillery side how does it work, the Brownfield part, is it possible at such cost. Because even Praj is working at such tight gross margins, it basically was a question for me, which I thought would get some more clarity from you on this on brownfield?

**Shishir Joshipura:** So is the question that if somebody is an existing sugary feedstock plant, they want to expand using grain. Is that the question and therefore they're saying that we'll just add on a train for the taking care of off season, if that is the case, then in off season obviously then he has the opportunity to operate on a different feedstock. And then he will have to then see how is what I would call as infrastructure is balanced out because I would not be able to comment in line no little more details and maybe offline we can take this question.

**Moderator:** Thank you. We'll move on to the next question that is from the line of Vishal Biraia from Max Life. Please go ahead.

**Vishal Biraia:** Are you seeing any enquiries for the 2G ethanol as well?

**Shishir Joshipura:** Sorry, could you repeat your question, please?

**Vishal Biraia:** Are you seeing any enquiries for 2G ethanol as well?

**Shishir Joshipura:** Yes, as I mentioned the 2G ethanol right now of course as you know that we are commissioning in different stage of installation and commissioning of the three projects in India. And as I was mentioning earlier, we expect interaction to start building in Europe, we

are already in dialogue with few customers there, including an investment company to see as to how we can go to next step they have come and witnessed, I had mentioned this a couple of months ago as well, that they've come and witnessed our trial at our collaborators place in SEKAB in Sweden, which we were able to demonstrate to them exactly the numbers that we had promised to them. So the dialogue is progressing, on those lines with several European customers, we are not, and there are some inquiries which are now beginning to flow in from India as well, especially from Eastern part of the country and let us see how those developments move forward.

**Vishal Biraia:**

Okay. And how different is the CAPEX intensity for a 2G versus 1G?

**Shishir Joshipura:**

Again, it is highly capital intensive. So we are looking at in 2G's case again, what is the feedstock, what's the condition or the physical characteristics of the feedstock and you can say, how can you say that, but that is the truth that these are very high factors that impact the cost in a particular way in terms of what would happen to the overall cost of our 2G project, 1G is much more standard. Then, there are other factors, whether I will co-locate it within existing plant for taking care of the infrastructure on the utility side, whether it's the brownfield expansion. So there are many factors that will go around determining the capital intensity. A 2G plant will have much more considerations to do before they can decide, I'm going to put up unlike 1G project where if you get a piece of land, you can probably go ahead and do the grain based within India, but that's not the case for 2G.

**Vishal Biraia:**

Okay. And any updates on the biodiesel opportunity, as to are we seeing any demand enquiries for biodiesel as well?

**Shishir Joshipura:**

No, we had mentioned that in the past as well, that the biodiesel opportunity in India is very limited, because there is no feedstock.

**Moderator:**

Thank you. The next question is from the line of Naushad Chaudhary from Birla AMC. Please go ahead.

**Naushad Chaudhary:**

Just one question I have sir, assuming the key raw material prices remain at current level. So what percentage of our existing order book will remain impacted in terms of margin?

**Sachin Raole:**

So some portion of our carry forward order book, which is still not yet executed, which is up to at least June quarter, because after that we started taking measures related to current market prices. So we are still carrying some kind of a legacy of that order book, which will have an impact of around 2% on that also.

**Naushad Chaudhary:**

And what quantum of that order book would be a percentage of total order book?

**Sachin Raole:** Naushad we will have to figure it out, but as I said, some portion of up to June quarter order book will have this impact.

**Moderator:** Thank you. We will move on to the next question that is from the line of Levin Shah from Value Quest Investment Advisors Private Limited. Please go ahead.

**Levin Shah:** Sir, last quarter we had spoken about this inquiry for 1G which has gone up by almost 1.5x of the previous quarter. But when we look at the quarter-on-quarter growth in the order inflows and bioenergy, then the number doesn't seem to reflect the kind of inquiries we will get, so has there been some postponement of orders or is it that we are looking at much bigger and much larger order inflows in next few quarters?

**Shishir Joshipura:** So, Levin, in general I would say that our order booking is keeping up with the inquiry inflow improvement as well. So, there could always be a little bit of deferment between let us say December to January kind of a cycle so which will effect but we have no reason to I believe that our order book is not keeping pace with our inquiry in flow. In fact, that is not a concern at all for us.

**Levin Shah:** Okay, so the current order inflows on an average last two quarters we have received total 600 crore kind of orders, do we see this number moving much higher on is this the kind of trend that you continue?

**Shishir Joshipura:** So, as I was mentioning to you earlier, in one of the questions answers that about 30% to 35% of this delta capacity that had to be created, the country is now ordered out. So we still have to go through the other 60% odd to be ordered out and at what pace, at what speed it gets ordered is also a function of many other things like the project funding and land and licensing and agreements with OMCs, et cetera. So those sectors will play out but eventually we will have to see if EBP20 has to succeed, this capacity has to be fixed.

**Levin Shah:** Okay. Sir, even if you look at the order book in the engineering segment. So sir on the engineering side of the business we have received very good order inflows in the quarter so if you can throw some light is this a particular large order or we are seeing good traction across in the engineering segment?

**Shishir Joshipura:** No. So as I was mentioning that, on the brewery side of business there is still no traction that we are witnessing. So that is the fact that brewery capacities are still not being put up in the country, on the other hand we did see a large size, zero liquid discharge system orders as a repeat order coming from all our customers that was one. And of course, the important development has been on our CPES business side, where we as I was mentioning to you, and we've been talking about in the past that there is a focus effort with a set of customers very clear offering being made to clean tech and green tech companies who want to commercialize their technologies, as also, our efforts to work with some of the leading and

the China plus one strategy being played out that is being talked about in the newspapers as well. So all of these factors are beginning some of, we saw them play out during the quarter, and we have no reason to believe that, that will not continue to be so. So we have mentioned a large order that we got in the last quarter as well. And not only one order we have got multiple of them. In the last quarter, where we had in the first phase of the program, it was a Chinese supplier, but exactly same set of equipment and technology when it came to phase two, we were able to win it over.

**Levin Shah:** Right. And even on the exports front as well we have seen very good. Just a follow up, so on the export backlog with have seen the highest ever export backlog as well and now with what you mentioned that the export inquiries are also going up. So, even that business should pick up going forward right?

**Shishir Joshipura:** That is correct Levin, the things is that the India opportunity is really at a very high pace. So, export is to, for exports to keep at that pace is what Sachin was mentioning that we do find a bit of a lag there because export while we are increasing and increasing significantly, the India opportunity is rising very rapidly and so it may be a bit of a difference in speed of both, both are increasing, both are in a good speed, but India opportunity obviously it must have been.

**Moderator:** Thank you. The next question is from the line of Bhalchandra Shinde from Kotak Life. Please go ahead.

**Bhalchandra Shinde:** Sir, since commodity prices stay same, how relatively our profitability will change because now most of the orders are at relatively better steel prices, so how our profitability will show increment? Will be able to show any operating leverage?

**Sachin Raole:** Good question and that's what we are trying to do. Bhalchandra if we look at the material prices, it looks like unfortunately it is unpredictable but it looks like that they are stabilizing now. And if you look at this quarter standalone basis, there is a slight improvement in the margin. So we are believing that we are in a position to arrest the adverse impact of input material cost on our bottom line. So this is what first signal which we are taking post last two quarters negative impact on the profitability. Our efforts or endeavor is now to see how the improvement can happen in this margin. But it's completely, it is not what I can say a predictable kind of a tool, which we have it where we can say that no, in the next quarter it will reverse. Because again, there are two, three more components which are going to play a part one, what is going to be the sales composition of our execution, which also includes what we are going to do on a supply side and what we are going to do on a construction site one, and second one is what is going to be the component of our export orders, which naturally carries a definitely better margin as compared to domestic which plays favorably on our overall margin. So, we would like to see, and we had at the beginning of this financial year, we had mentioned that this year is going to be a little bit challenging, and we are not an exception as compared to what other market elements or other companies are seeing. So,



still we are trying to figure out how best we can take care of this. By end of March, we will have some kind of an idea how this trend is moving forward.

**Bhalchandra Shinde:** Okay. On the market share side, since we are the oldest player, but obviously the ethanol capacity addition was not up to that mark, over last so many years. And now the traction has been and feels like other peers like isjec and other players are actually trying to get involved in this. Are they creating any pricing pressure on the market and do we see any market share impact, because of all these things?

**Shishir Joshipura:** So, Bhalchandra the way I look at it like this. So if competition walks in, that's a good sign. That means they are also confident that the opportunity size is increasing, because that's when you actually start to see competitive intensity and action increase we're seeing that and every company will have to create its own value proposition of what they want to believe in and what's their value proposition to the customer, some will sell it based on a low cost, some will sell it based on faster delivery, some will sell based on a lifelong high technology, better performance, lower cost of operation, reliability so every company will need to find it's own value proposition and we are seeing all kinds of competition. Everybody has their own value proposition to the customer and for every segment, there's a value proposition that works more than others. So, that's the way it will work.

**Sachin Raole:** And Bhalchandra If I may add on what Shishir has said that if there are some kind of run of the mill kind of inquiries, we are even not entertaining those, we're not even looking at if there is no technology age, which we are supposed to provide as compared to the competition we are not even looking at those inquiries, we are trying to concentrate on the very, very specific set of customers who value our technology, who value our engineering superpower as compared to the competition. Yes, there will be some kind of pressure on pricing naturally because if you are evaluating two or three different competitors, naturally there will be a different ask from a customer, but our customers understands the premium, which we are giving in our product offering and there is a naturally pricing which we command because of that technology is concerned. So if you look at from a market share point of view, it will look very different. But still we continue to maintain our market share at any point of time above 50% of the market.

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

**Lokesh Maru:** I just wanted to inquire on the other opportunities like I was reading on bio lignin, Praj had that worked on with a client in Europe any progress on that front and since that is actually one of the promising technologies coming forward in coming years?

**Shishir Joshipura:** Lokesh, I can't hear you very clearly.

**Lokesh Maru:** Sir I was saying Praj had come up with bio, technology of bio lignin it goes into asphalt had been working with a working European client for that. So any color on how big that opportunity like that could be going forward and how big the market is there?

**Sachin Raole:** So, Lokesh just to provide some sort of clarification, we have developed a technology for bio bitumen and we had sent a test sample because testing first sample and then a larger quantity to a institute in Netherlands which is the certifying body for same that is you can use it and the surface is safe and use on what kind of surface. So that has now been done. It's whether and those test markets now we have to start looking at any sort for bio lignin, bio bitumen. Lignin is a base for creating that bio bitumen and we are now, you will hear about it as you move forward in the time as to how we plan to commercialize this technology, but you will hear about it.

**Lokesh Maru:** And there are no competitions in this segment in India for this?

**Sachin Raole:** No, not to our knowledge.

**Moderator:** Thank you. The next question is from the line of Keshav from Raksans Investors. Please go ahead.

**Keshav:** Sir, my question is concerning Praj high purity healthcare. So, I understand that the complexity in biologics manufacturing is far more than your chemical manufacturing, the processes aren't that simple. On one hand, you have the equipment, process side complexity, and then there is this client side competence that's needed. So, with this background could you help understand the industry landscape in India a little bit as an if the current equipment market is largely with the global peers like thermo, Sartorius and if how we plan to compete and the overall competitive landscape.

**Shishir Joshipura:** Okay, so maybe that could be a pretty long winded session. So, but I will try and give an elevator speech briefly one. So, there are different segments of Pharma facility when this is set up. So PHS is currently providing high purity systems, that is high purity water that is required. So water production, purification, storage and distribution that is what they do for the pharma companies. They also provide them what we call as manufacturing process systems, which are then take the basic molecule that gets producing fermenters of the competition that you talked about, and then help create a drug out of it of course, then there's the packaging section that we don't sort of go into. But what is important is that we are now beginning to position the business also little differently, by leveraging the fermentation knowledge and strength that the parent company has got. And that is where we start to play out we are already building couple of fermenters for some of the leading pharma companies to see as to how we can actually bring value to that part of the business and we are very excited about the future as to what role will fermentation play and therefore the bio

pharma and so on. So that's a short answer for you. Yes, we have not stepped into the fermentation space so far on the PHS side of business, but we are beginning to go there now.

**Moderator:** Thank you. We'll move on to the next question that are from the line of Vishal Biraria from Max Life. Please go ahead.

**Vishal Biraia:** Sir, have we received any orders for BIOSYRUP technology yet?

**Sachin Raole:** No, we have not yet received any BIOSYRUP technology order in this quarter. That's what Shishir was making a mention. But the inquiry basket is strong. See the next season will start next year. So the requirement actually will come up only in the next year from the sugar mill site for storing the sugarcane juice. So that's the reason why we will be expecting, our expectation is that the order book will start showing some kind of a number starting from next quarter onwards. I hope I answered your question.

**Moderator:** As there's no response from the current participant, we'll move on to the next. And this will be the last question that is in the line of Levin Shah from Value Quest Investment Advisors Private Limited. Please go ahead.

**Levin Shah:** Sir on the CAPEX side so our capacity building what we had announced last quarter that we are preponing it by a year so, if you can throw some light what kind of investment are we looking at and by when will be through done with this and post that what is the kind of execution that we can do with the CAPEX that we will do?

**Sachin Raole:** Yes, Levin so we mentioned in our opening remark about building up of capacity because what traction we are seeing on the execution side going forward is very of a high nature. So we are trying to build up our capacity on both the sides, one on the internal manufacturing capacity and also the outsourcing one. So we are right now trying to balance between these two and figuring it out what will be the requirement actually on the manufacturing side. And we will be firming up our plan during this quarter. So, by the time we will be sitting next time, post next quarter we will be in a position to give you a number also what we are looking at from the investment point of view. Earlier, we used to talk about only on the outsourcing capacity announcement, but now, we feel that there will be a requirement to build up something internally also and we will not only be able to support the requirement which is coming up on the bioenergy side only through the outsourcing so, we will look at something to build on the internal side too.

**Levin Shah:** Understood. Sir and just last question on the CBG front. So, we have executed already two orders which are now under commissioning, so which are already commercialized, is there any other order that we have in our order book for CBG?

**Sachin Raole:** So, we mentioned that two orders based on press mud are already executed and plants are commissioned, they are under scale up and stabilization at this point of time, there is one more order which we are executing which is based on biomass for HPCL. So, there is third order which is under execution at this point of time.

**Levin Shah:** Okay. And going forward once, like we are expecting that by March or April, the clarity over the subsidy must expose so that we will start bringing in for inquiries and all of that?

**Sachin Raole:** Yes, so the ecosystem we believe that should actually come up in a clearer way in the next quarter. And we will see moment on the CBG also if you're right.

**Moderator:** Thank you. The next question is from the line of Raja Mohan Venkatraman, an Investor. Please go ahead.

**Raja Mohan Venkatraman:** In one of your public conversations, Mr. Joshipura, you had indicated to a very tough American customer in pharma grade alcohol, whom you had satisfied post initial inhibition? Are you seeing the multiplier effects in that region play out and say, post 2025 when we reach somewhere close to 20% ethanol blend in India would we move the export leg in a much bigger way taking up the slack, whatever slack happens in India. So by say, 2030 would we target, where would we target exports as a percentage of total revenues?

**Shishir Joshipura:** So, Mr. Mohan two, three things. One is on the top customer, or a very demanding customer from analysis. Actually, it's just so happens that we've just received, and I always say that this is the final test, when a customer actually does that. So we had given him a performance bank guarantee. And he returned it back to saying, I'm happy with your plan. And he just, Sachin was telling me in the morning today that he just came back late last night. So there's the proof of concept that the plant has been commissioned, customers are very happy, in fact, he has written to me as well, that we would like to work with you guys in future as well. So that's a good part of it. Now that the plant is commissioned, we have a showcase in United States to show a very high end plant to be shown to our customer. In fact, we've commissioned one more after that, as well. So, I'm sure that will help us to build traction in that part of the world when we go and show customers saying we have got a grassroots base plant which can actually meet the best specifications of the alcohol in the world. So from that perspective, we are expecting that we will start to use and leverage that plant that we are commissioned two of them now in United States. Did, I understand your question correctly, when you said that by 2030, India will start to export ethanol?

**Raja Mohan Venkatraman:** No, what I was trying to understand was by post 2025, India won't move at this rapid pace. By that time, you would have your several use cases in the export market also on Play. So post 2025 would we see exports growing more rapidly and by 2030 would we have some internal targets from say, 17%, 20% currently of export revenue to the total revenue would we be reaching say 30% of the total revenues for Praj?

**Shishir Joshipura:** Yes, exactly. So two things one is post 24, we expect two more elements to emerge which currently are not visible to everyone, but in India itself. One is what happens to the ethanol blending program for diesel and we are pretty hopeful that, that will also come into being, if that comes into being you get an equal size opportunity again. The second one is about what happens to the aviation fuel. And that's where we know that there will be a traction that get will be get specially more towards 28, 29, 30 in that three year period, where we believe in ethanol could become a very good base molecule for conversion into sustainability, those are two developments that we see could happen in India and more likely to happen, the flex fuel vehicle policy will also drive the demand beyond EBP20. So those are three things that will happen that we believe on the India front, coming to the international side of business, you're very correct. In fact, I am asking my team and we are focusing on increasing our impact, in fact as I was saying and somebody also made an observation that, our order books on international business have also started to grow, it's just that they are going a slightly different speed compared to the very high speed of the domestic market just now. So we are building international market it do take a little longer time to build, but we are very focused on building international business. And you're absolutely correct that our effort is to see how we can increase the share of intentional business in our overall pie, absolutely correct on that one.

**Raja Mohan Venkatraman:** Understood sir. And since you talked about diesel, since we already have a 5%, 6%, 5% to 8% was mentioned in this quarter blending technology capability in diesel. Could we expect policy announcements to happen soon say by the next one or two years, and Praj's progress on diesel R&D are we seeing light beyond even the 5%, 8% blend possibilities in diesel?

**Shishir Joshipura:** Yes, so thank you for that. Yes, we do expect that in a couple of years time we should see an announcement. It is also our expectation that is number one, because eventually it does bring down the overall, it means all the goals that's a petrol blending program meets. So why should it not happen on the diesel side? So that's in fact the environmental benefits could be even more enhanced on the diesel blending side. So that's one clear thing that we see as we move forward.

**Raja Mohan Venkatraman:** Right. one final question. In the last call you had indicated to generating positive IRR on starchy feedstock due to the tireless work Praj engineers have been doing. Has it seen any further progress and how close to those sugary feedstock economics have we reached any guesstimate on when we'll starchy feedstock economics match sugary considering even economies of scale?

**Shishir Joshipura:** Mr. Raja Mohan the sugar and starch are pretty even right now. The third one that I talked about was a lignocellulosic feedstock which is based on the straws and grasses and things like that where there is a challenge of getting the IRRs to the same level as sugary or starchy feedstock, a lot of work is happening in the direction I was mentioning earlier, we do expect actually that the commissioning of the plant will be a very, very important event, which we

are expecting towards the later half of this year, when we will commission the first plant in the country, the world is watching because that's the only plant in the world where technology supplier is commissioning a plant for somebody else. The user is different from the technology supplier everywhere else in the world, there are technology suppliers who are developing their own plant, so that's different. Now I'm doing it for somebody else. Obviously, the endorsement is much higher. There the challenge of getting the IRR to, I don't think the challenge is to get it at the same level. The challenge is to get it at a level by which it starts to attract the private investment. And we are beginning to see some initial traction now that we have done a lot of work, we have improved it from a negative and two digit number to a positive two digit number. So that travel has already happened. But we are continuously focusing on also developing some co-products that would also not only enhance the value, but will also help to improve the IRR. So that work is going on, but we expect that we should see, let me put it like this. Let me see over the next three to five years is the travel time that we need to give to this technology to actually come to its full potential. And because then the question will be very different because there's a feedstock availability question that this technology will address. And right now that feedstock is just being burned, and then we'll be able to put it to good use.

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

**Sandip Bhadkamkar:** Thank you everyone, for your time today. If you have any more questions, feel free to reach out to team Valorem also, you can write us at [info@praj.net](mailto:info@praj.net). Thanks a lot for your time and have a nice day. Thank you.

**Shishir Joshipura:** Thank you.

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