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Earnings Call

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Presentation

Operator

Good morning, and welcome to the Green Plains Inc. and Green Plains Partners Third Quarter 2023 Earnings Conference Call. [Operator Instructions]

I will now turn the call over to your host, Phil Boggs, Executive Vice President of Investor Relations. Mr. Boggs, please go ahead.

Phil Boggs

Executive Vice President of Investor Relations, Green Plains Inc.

Thank you, and good morning, everyone. Welcome to Green Plains Inc. and Green Plains Partners third quarter 2023 earnings call. Participants on today's call are Todd Becker, President and Chief Executive Officer; and Jim Stark, Chief Financial Officer. There is a slide presentation available and you can find it on the Investor page under the Events and Presentations link on both corporate websites.

During this call, we will be making forward-looking statements, which are predictions, projections or other statements about future events. These statements are based on current expectations and assumptions that are subject to risks and uncertainties. Actual results could materially differ because of factors discussed in today's press releases and comments made during this conference call and in the Risk Factors section of our Form 10-K, Form 10-Q and other reports and filings with the Securities and Exchange Commission. We do not undertake any duty to update any forward-looking statement.

Now I'd like to turn the call over to Todd Becker.

Todd A. Becker

President, CEO & Director

Thanks, Phil and good morning, everyone and thanks for joining our call today. This morning, we reported \$52 million in EBITDA for the third quarter and an ethanol operating rate of 93.9% and very strong ultra-high protein production and sales. These results begin to demonstrate our platform's capabilities and we believe we can and we will build on these record rates moving forward and start to see the real benefits in Q4 and beyond.

The team was focused on bringing our platform back to consistent operations after our first-half headwinds, some of which continued into July of this quarter, but we really started to gain positive momentum as the quarter progressed and that has continued into Q4. We executed on the market opportunities that were and continue to be available. As I just said, we have continued the same focus in the fourth quarter and have positioned ourselves based on current market dynamics to perform better across every product we produce. We remain largely open to the expanded margins in the fourth quarter, although we were able to lock in our veg oil pricings, higher than the current market and now own our winter gas at or below market.

In addition, corn basis which has been a significant headwind for the past 2 years has moderated significantly on the forward look. And while we still have some needs to buy in for the quarter, we are generally covered at or below market as well as on a physical corn basis. In Q3, for reference, the corn basis in our areas was \$0.44 higher than the five-year average during Q3, as we finished up bringing in the last of the old crop. In addition, as ethanol remains inverted slightly on the curve and as we always try to reduce our inventories, this always is a slight negative when the market is and was set up like that against the end of the quarter.

During the quarter, we restarted our Wood River MSC protein system late in July and operated at consistent rates across the entire platform. We achieved new record production levels for ultra-high protein in the third quarter and are on pace to set new highs in the fourth quarter. Not only did our ethanol -- our entire platform operating more consistently, but we continue to see higher average yields per bushel. We continue to refine our process and apply learnings across our 5 locations. For example,

last month in Shenandoah, we averaged over 4 pounds per bushel and you will recall that our original investment thesis was based on 3 to 3.5 pounds per bushel. So we can achieve our 2025 targeted volumes with fewer locations but with investments that we -- and lower than we originally anticipated, although we are continuing to roll this out through our platform.

Our JV with Tharaldson, which will be the largest MSC facility ever built, is slated to come online in Q1 of 2024 and later in the call, I will dive more deeply into protein economics, production, 60 Pro, current dynamics and some other exciting ingredient opportunities that are coming our way. I will also update you on our decarbonization, clean sugar launch and veg oil marketing. Our liquidity improved in the third quarter with our platform turning to free cash flow generation and also benefiting from the sale of our Atkinson plant above that. With strong margins on paper today, we expect even better free cash flow in the fourth quarter and to end the year stronger yet.

Last month, we executed a definitive merger agreement with Green Plains Partners. We are continuing to work through the process and anticipate completion before the end of the year. We expect that the proposed transaction will simplify our corporate structure and governments -- and governance, generate near-term earnings and cash flow accretion, reduce SG&A expense related to the partnership, improve the credit quality of the combined enterprise and align the strategic interest between Green Plains shareholders and the partnership's unitholders. There will be some one-time deal expenses that will hit in Q4 and Q1, but we will call it out for you after the close.

And now, I'll hand the call over to Jim to provide an update on the overall financial results.

James E. Stark

CFO & Principal Accounting Officer

Thank you, Todd, and good morning, everyone. Green Plains consolidated revenues for the third quarter were \$892.8 million, which was \$62.2 million or approximately 6.5% lower than the same period a year ago. The lower revenue is attributable to lower prices for ethanol and dry distillers grains in Q3 of '23 as compared to the third quarter of '22. As Todd stated earlier, our plant utilization rate was 93.9% during the third quarter compared to the 90.9% run rate reported in the same period last year, but significantly improved from 81.5% in the second quarter of this year. We anticipate our plants to continue to perform, targeting utilization rates in the mid-90% range of our stated capacity.

For the quarter, we reported net income attributable to Green Plains of \$22.3 million or \$0.35 per diluted share. That compares to a net loss of \$73.5 million or \$1.27 loss per diluted share for the same period in 2022. EBITDA for the quarter was \$52 million, that compares to a negative \$35.6 million in the prior year period. Our depreciation and amortization expense was slightly lower by \$0.7 million versus a year ago at \$23.9 million. We realized \$48.5 million in consolidated crush for Q3 of '23 compared to a negative \$20.5 million in the prior year. Our Ag and Energy segment performed well, recording \$12.2 million in EBITDA, which was about \$5.6 million higher than the prior year. This increase was driven by opportunities in our merchant businesses.

For the third quarter, our SG&A costs for all segments was \$35.5 million compared to \$29.1 million reported in Q3 of 2022. This increase was driven by legal fees associated with the GPP buy-in and other legal activities during the quarter. Interest expense was \$9.6 million for the quarter, which includes the impact of debt amortization and capitalized interest. This was in line with the prior year's third quarter.

Our income tax benefit for the quarter was \$7.8 million compared to a tax benefit of \$1.9 million for the same period in 2022. The increase in the tax benefit year-over-year is a result of a decrease in our total deferred tax assets, which allowed us to reduce our valuation allowance against those deferred tax assets. At the end of the quarter, the net loss carryforwards available to the company were \$128.9 million, which may be carried forward indefinitely. We continue to anticipate that our normalized tax rate for the year for Green Plains Inc., excluding minority interest should be around 23%.

Our liquidity position at the end of the quarter remained solid, which included \$366.2 million in cash, cash equivalents and restricted cash along with approximately \$200 million available under our working capital revolver. Our financial strength is growing due to the strong execution of our platform and favorable

industry fundamentals as we are well positioned to execute on the next steps of our transformation plan. As a reminder, we have no debt maturities until 2026 and 2/3 of our debt is locked in at a fixed rate, leading to our overall cost of borrowing during the quarter being around 7.2%.

For the third quarter, we allocated \$29 million of capital across the platform, including \$15 million to our clean sugar build in Shenandoah and other MSC protein initiatives, about \$8 million to other growth initiatives and approximately \$6 million for maintenance, safety and regulatory capital. For the remainder of 2023, we anticipate CapEx will be in the range of \$25 million to \$45 million as we continue to work diligently on the timing of permitting for MSC technology deployment at a couple of our larger plants.

For Green Plains Partners, we reported net income of \$9.4 million and an adjusted EBITDA of \$12.7 million for the quarter, in line with the \$13 million reported for the same period a year ago. The partnership declared a quarterly distribution of \$0.455 per unit with a 0.99x coverage ratio for the quarter. The partnership had distributable cash flow of \$10.7 million for the quarter, slightly lower than the \$11.3 million for the same quarter of '22. Over the last 12 months, the partnership has adjusted -- produced adjusted EBITDA of \$50.6 million, distributable cash flow of \$42.9 million and declared distributions of \$43.2 million, resulting in a 0.99x coverage ratio, excluding any adjustment for the principal payments made in the past year.

Now I'd like to turn the call back over to Todd.

Todd A. Becker

President, CEO & Director

Thanks, Jim. So our path forward continues to be focused on maximizing what we can produce from a kernel of corn at each of our biorefineries and all of our initiatives tie back to one consistent theme, making low-carbon ingredients that matter. We consistently pointed the need to operate our core business well to maximize the opportunity in protein and higher renewable corn oil yields, and we are starting to achieve those higher run rates once again. Our assets have aged and we needed to put a lot of care into them, and we hired a new operations executive leadership team that is fully focused on the modernization and automation and they know how to do it correctly. We've been investing in technology and are making great progress towards the goal across the platform.

Today, we have 5 facilities operating our MSC ultra-high protein technology. Construction of both Madison, Illinois and Fairmont, Minnesota continues to be pending favorable outcomes from the permitting process in both states, which continues to take longer than we thought. We are in a good path in Illinois as the permit will unlock the full potential of the plant in terms of total volume of all of our products in addition to the MSC installation.

What I'm really excited about is our MSC turnkey joint venture with Tharaldson is on track to be in commissioning and start-up in the first quarter of 2024. This will be the largest plant ever built with the Fluid Quip technology and will bring approximately 100,000 tons of production to our sales platform. We remain on our path to have our total annual capacity of 580,000 tons at the base yield of 3.5 pounds per bushel. Yet, we are also starting to achieve higher yields at almost all of our locations with some consistently achieving over 4 pounds per bushel daily and believe that over the long run, we could achieve improved yields across the entire platform.

Our production was significantly higher than in the prior quarter and continues to grow. Our commercial team focused on protein successfully work with our diverse customer base to sell all of the products we produce. This confirms what we have always believed that we have a great product that is in high demand. We have a solid customer base and we continue to have access to new business opportunities. We increased the number of customers by 25% to 30% during this quarter alone. Our protein product is also growing demand around the world and we are now selling our protein to North and South America, Europe, Middle East and Asia.

Now let's talk about the 60% protein initiative, because that's one of the most important and exciting things that we're going to be doing over the next several years. We executed a successful full-scale 60% protein production run during the third quarter at Wood River and began to deliver commercial quantities

of 60% protein to end customers and are in a position to begin delivering an additional 60% protein sales in the fourth quarter. We are continuing to debottleneck the production process around this, both mechanically and biologically as we learn how to transition these MSC systems from 50% to 60% protein production at full scale. Once we lined out the system in Wood River, we consistently produced our 60% protein product and have achieved as high as 62.3% during the quarter. The team overall at the plant as well as in our office here did a great job in a very difficult task, which is why we know we have something unique.

We now have our first repeat 60 Pro business and the product is being utilized in several large-scale commercial diets, along with additional trials in the U.S. and around the world. We remain committed to achieving our goal of dedicating 20% to 30% of our portfolio to 60 Pro during 2024. We can see the business in front of us and customers are starting to ask for it. In addition to the high-quality nutritional digestibility and taste profiles of our protein, we are already getting value from our lower CI from our ultra-high protein relative to corn gluten meal from wet mills and received updated data during the quarter on the advantage we have. Now that we've been running our platform for several months, we anticipate the fourth quarter ultra-high protein production will be higher than what we achieved in the third quarter and growing.

As we look at the EBITDA opportunity in 2024 based on the 5 facilities we have operating, plus a partial year impact from our turnkey JV, EBITDA contributions could be \$80 million to \$120 million during the 2024 fiscal year.

In corn oil, our renewable corn oil remains a feedstock of choice among renewable diesel producers and even in the face of new soybean crush capacity coming online, our corn oil maintains a distinct advantage due to its lower carbon intensity. I don't think we need to spend a lot of time on this for this call as most of you know everything you need to know about this great product. Pricing was strong during Q3 and we sold most of our Q4 production at higher values in the current market. So we're happy about that. We believe our renewable corn oil platform is well positioned to take advantage of industry drivers towards advantaged feedstocks. The low-carbon premium has developed and we believe renewable corn oil beginning in 2025 is even more advantaged in the IRA, so don't ignore that positive factor as we get into next year and the year beyond.

Decarbonization continues to be a crucial strategy that we are pursuing. The most significant step we can take is participation in carbon capture and sequestration opportunities. Four of our facilities representing approximately 316 million gallons per year are committed to the Summit Carbon Solutions projects. We are confident this project gets completed, although Summit is now indicating looking at a 2026 startup. They continue to make great progress on permitting and right of way and we expect that many of the stranded Navigator plants will end up on this project.

As noted over the past quarter, 3 of our facilities are now in a separate CCS project in Nebraska, Central City, Wood River and York represents about 287 million gallons. This project appears to be on track for a 2025 startup. We have expanded and diversified our partnerships for carbon capture and sequestration and believe that we will be in a significant advantage beginning in early 2025 when 45Z goes into effect. Decarbonization through carbon capture and storage provides a critical milestone to not only lower the CI of the fuel ethanol we produce but also further drive delineation in all of our ingredient pathways. Ultimately, having a decarbonized ethanol platform positions fuel ethanol to be a crucial low CI feedstock for the development of sustainable aviation fuel, which, as you know, we are keeping a close eye on.

We expect to get some more clarity from the administration on SAF before the end of the year. We are approaching completion of the world's first commercial clean sugar technology facility in Shenandoah, Iowa as it is on track to be mechanically completed by the end of the year and we are still only waiting for final electrical gear. We believe we should have it in time to begin commissioning in Q1 of 2024. The interest from potential customers exceeds anything we could have anticipated and we have been looking at plans to quickly expand the capacity at Shenandoah as well as completing additional installations elsewhere when we can. This is truly disruptive and game-changing for Green Plains.

Our clean sugar has up to a 40% lower CI than from a wet mill and that is before we have carbon capture deployed. We look forward to demonstrating to the market the true value of this technology. Our ongoing commercial sales discussions around our dextrose product reflect the value of the lower carbon intensity of which we got brand-new results during the quarter, which have basically shown that we are at least a 40% lower carbon intensity score than the incumbent products.

So where does that leave us with regard to our path to our 2025 EBITDA and transformation that we laid out to you a couple of years ago? For 2024, starting with the 5 MSC facilities plus a partial year for the Tharaldson JV could drive EBITDA contributions of \$80 million to \$120 million, excluding any uplift for 60% protein, our base renewable corn oil business, excluding the corn oil uplift from our MSC, tracks to about 250 million pounds and depending on how veg oil pricing goes, it could be \$130 million to \$160 million annual contribution as well. We have recently seen veg oil prices drop, so once again, we'll see what develops in 2025 as more renewable diesel projects come online and we'll see what the impact it has and if the government will continue to allow Chinese used cooking oil to really receive our tax credits.

Our Ag and Energy business consistently generates \$20 million to \$30 million in EBITDA annually and our corporate SG&A is approximately \$65 million to \$70 million. Just to be clear, we have pre-invested both in protein marketing and technology as well as our sugar marketing and technology. So that when we kick off these new products, we are fully ready to go. I'll let you put in your own assumption for ethanol margins, but we do believe fundamentals for the ethanol demand will remain strong for the foreseeable future, notwithstanding those normal ups and downs we see seasonally or from quarter-to-quarter, yet we are also focused on consistent operations from our core products as well.

As we move into 2025, we should see incremental value from additional MSC facilities, but most critically will be the startup of our decarbonization strategy, with our platform having a significant advantage in terms of timing to completion relative to other projects that are out there. I'm incredibly proud of our entire team for pulling together and delivering a solid quarter and positioning us for even greater success that's possible in Q4 based, of course, as we always say, on current markets. We have made our significant changes to our executive team throughout the organization over the past 12 to 24 months. We assembled a new senior management team and leadership team in operations with hires from industry leaders in wet milling and value-added production who can also maximize the capabilities of our plants. This team has many, many decades of operational expertise.

We built a new commercial leadership that's focused on building value-added marketing and distribution that was needed for our new products that have expertise in traditional commodity margin management. We also have new leadership in human resources as we are focusing on taking care of our team members' needs and recruiting great talent. And of course, I can't leave this out, Jim taking over as CFO. We also have a great bench of leaders and employees from sales to marketing, to trade, to production to nutrition to technology and our finance organization, of course, our plant management who all help us continue to execute on our transformation and deliver results from many industry leaders we compete with on many of our new products.

We knew this would be a challenging process. And of course, I'm humbled in by the dedication and inspired by the passion of all of our team members across the organization in every position week in and week out. Finally, our commitment to safety of our employees is first and foremost, before anything else we do, we will never put profits before safety, and I preach this continuously anytime I can. And with that, I'll leave it there. Thanks for joining our call today, and we can start the Q&A session.

Question and Answer

Operator

[Operator Instructions] Our first question is from Jordan Levy with Truist Securities.

Jordan Levy

Truist Securities, Inc., Research Division

Maybe to start on the protein side of things, it seems like we're getting into that time of the year when you start to look at allocations. Maybe if we just start looking back 12 months or so versus where we are now, if you could just talk to how those are shaping up, what sort of the customer mix and how that's changed and how the economics look now versus how they did maybe a year ago?

Todd A. Becker

President, CEO & Director

So let's talk first about the economics. What we've seen is with corn prices kind of hanging in there a little bit lower and protein prices increasing against that, the economics on paper have clearly gotten better just basically financial to financial. Now during the quarter, last quarter, we saw weakness in the soybean meal basis, which affects the overall margin structure, but that has come roaring back as well as the overall price for protein has come roaring back as well. So we're optimistic with in terms of our price competitiveness relative to incumbent products. We get a lot of calls around that and the use of our product and we're seeing higher inclusion rates. And in general, we've seen good uplift in terms of new demand showing up for our product across all of the species.

We're happy to report, we renewed our pet food contract for 2024. We got 100% of that business back, and it's growing from there. The company that we're partnered with continues to grow their volumes every single year from when we started in Shenandoah by selling part of that plant out as well.

So relatively speaking, from 12 months ago, we continue to see uplift in all the species and continue to see growing volumes across our whole customer base even with more volumes coming into the market.

Jordan Levy

Truist Securities, Inc., Research Division

And then maybe just moving on to the carbon side of things. I appreciate the commentary you gave there and sort of the diversification strategy you all are kind of continuing to pursue. Maybe just with some of the recent headlines around some of the plants, some of the other plants in the market or the other pipes in the market rather. Maybe if you could just talk to how you're thinking about that over the -- and the confidence you have over the next few years and being able to execute on the carbon strategy.

Todd A. Becker

President, CEO & Director

Yes, I think we start with our core pipeline strategies with -- the partner with Summit and what a great job they've done. They've secured 75% to 80% of the right away. Nobody else has been able to -- nobody else building a new pipeline has been able to do that. While they certainly have seen some headwinds in terms of just overall permitting, we believe -- strongly believe they'll get through that and kind of get their route established. A lot of it's about the routing and some of it's about local communities, making sure that they get what they need. And I think Summit is fully prepared to make those concessions and they continue to negotiate.

First comes the Iowa permit, we're confident in North Dakota, and we're also really confident that they'll get through the South Dakota process as well with some rerouting. That's really what it takes is that line running from Iowa to North Dakota. It's strong from the standpoint of the early funding they raised. Obviously, they need -- we're waiting for their final permit, so they can raise the final funding. They've --

We're confident in the team and their ability to execute. And it's going to be a massive project that gives a massive uplift to our industry overall.

And then with obviously the other pipeline that decided to cease their operations, I think that's advantaged Summit relative to where they're building and to pick up other plants and increase their volumes, which just makes everything more economic in the end. It's absolutely the right thing to do not without any pipeline that has its normal challenges, we're confident that we made the right choice. We made an early investment. So we're a shareholder and we really like the position that they're in. Maybe it takes a little bit longer, but overall, really good execution so far.

In terms of Nebraska, we had mentioned a different project there that we believe startup will be in 2025 and the e-cons are very favorable to Green Plains as well. Those will be early e-cons we outlined those during our earlier calls and discussions, but we really feel like we're in a really great advantaged position, especially for the early startup. And then when Summit comes online, it really just drives our capability to earn from the carbon initiative significantly for our shareholders.

Operator

The next question is from Manav Gupta with UBS.

Manav Gupta

UBS Investment Bank, Research Division

So I was wondering if you could help us a little bit to understand where can we -- when -- by when can we get more guidance from the treasury as it relates to 45Z? And I'm also trying to understand, we have seen a little bit of a pullback in corn oil prices. I think it's more of a function of D4. You have a lot of capacity coming on, which would need that corn oil. And then as LCFS prices move up, the demand for corn oil should be higher. So trying to understand some more -- whatever guidance you can provide on 45Z and then how do you see near- to medium-term corn oil price hike?

Todd A. Becker

President, CEO & Director

Yes, thanks. I have Devin here with me who led our IRA call. So I'll let him comment on where we're at on that.

Devin Mogler

SVP of Government Relations, Sustainability & Communications

Hey Manav, the government had said they were going to come out with 40B SAF guidance by September 15. Obviously, that's in the rearview mirror by 45 days. We're still expecting that by the end of the year and that the life cycle modeling they put out there for SAF will likely inform their thinking on 45Z. As far as the model they're using and how farm carbon and carbon capture can play in that, hope we're still optimistic that we will see 45Z guidance by the end of the year, but that could slip into early next year.

Todd A. Becker

President, CEO & Director

Yes. So from that perspective, and as we move to your second and third question on corn oil and LCFS, we have seen a drop. I think that was due a little bit to overall market dynamics of the unwind between meal and oil. We saw meal rally and oil retreat from the highs, although we got most of our corn oil sold at higher values for the fourth quarter. So we're happy about the position we have on at this point. That was the one thing we wanted to make sure that we locked in to at least get that locked away as we saw some downtimes in renewable diesel and maybe some delays in start-ups.

Overall, I think another big impact, and I mentioned it in the script is Chinese used cooking oil, which to us is disgraceful as it has the ability to come into the United States and earn our tax credits. It's sitting down at the Gulf. I think it pressured overall veg oil prices as well. And we'll see where that transpires, I think it was preloaded against some start-ups of some of the newer plants as well. But we're

going to watch that closely and make sure that we defend our position as a U.S.-made product against a foreign-made product, getting our tax credits, and we're very focused on that.

But overall, I think we've seen oil prices stabilize here down in the mid-50s and we're still trading at a premium to that on any given day. So overall, we're still not unhappy about the values. And then lastly, you've seen these -- the great equalization of the D4, D5 and D6 RINs and D3 is just significantly higher than that. And that's really what the goal, I think, of the last round of EPA rulemaking was -- was to kind of equalize all those, let RINs be a little more agnostic and then see what wins. But overall, it still RINs are in the high-80s and 90s. And overall, those economics are pretty well.

And lastly, LCFS, I think California is committed to making sure that, that program is successful. So between RINs, between LCFS and obviously the biodiesel tax credit and then moving into 45Z into the program into 2025, look, I mean, we think we're in an advantaged position as an industry, not just Green Plains, but as an industry overall to make what we think is the second large lowest carbon feedstock available and we think that will continue over time. And it's just really, a lot of it continues to be rebalancing all the time between kind of the protein and the oil contribution.

Manav Gupta

UBS Investment Bank, Research Division

Todd, very quickly, the fundamentals of ethanol are even better in 4Q versus 3Q. And I'm hoping somewhere you would say that you were not really hedged for 4Q, so you can get the full benefit of this market rally, if you could clarify?

Todd A. Becker

President, CEO & Director

Yes, I mean we've seen overall better margin structures that have been available during Q4. It's been volatile, though in the last couple of weeks. I think if you watched it, you've seen it come off the highs. So there are days I wish I would have hedged some of that volume. But we remain open on a daily basis other than small positions we have as we mentioned. But generally speaking, the crush is -- the margin structure is better than what we have seen, but it has come off its highs. And we'll see what transpires every Wednesday, is an adventure, as we say. But overall, driving demand has remained solid. We've seen it a little bit below 9 million a day, which is good for ethanol. We've seen good export demand coming out of -- for our products about 100 million a day or 100,000 barrels a day, sorry.

And overall, we just got to watch production. There's definitely some noise of more plants trying to start back up, got to watch that. But our industry is aging and I've preached that over the last several calls, and that's kind of what some of the headwinds we faced over the last 12 to 18 months, our assets have aged. I had to -- had to hire a new operational team to address those issues prior to the old operational team and management at the plant as well. So it's just harder to run these plants. I think you're seeing that on a weekly basis in EIA data, but generally, we're stabilized.

Operator

The next question is from Craig Irwin with ROTH MKM.

Craig Irwin

ROTH MKM Partners, LLC, Research Division

So Todd, I wanted to ask you about 60 Pro, you said 25% in '24, that's up from last quarter. Can we maybe read that to be the majority of High Pro production being 60 Pro in the back end of the year or maybe even most. Can you maybe just give us color on how you see this potentially progressing over the year?

Todd A. Becker

President, CEO & Director

Yes. I think what we learned and what we're seeing in terms of the demand for the product is because of the quality of the product, not only from a protein standpoint, but digestibility, feed conversion ratios,

those types of things that are coming out of these long trials that we've been in. And we're seeing really good interest in the product. For us, when we think about what's the biggest thing we can do relative to non-government-related programs, non-carbon programs, those type of things in the short term is move as fast as we can to make as much 60 Pro as we can starting in 2024 and then into 2025.

Look, if I could wave my magic wand and make 100% today, but it takes time for the market to uptick the new products and there's never been a new product like this in a very, very long time. So all roads are going to lead to 60 Pro for us. We have initiatives to look at what we need to do to bring a second plant on next year and then look at basically initiative around 100% of our plants moving to 60 Pro. The some of it -- what we're learning is some of it's biological, but some of it is mechanical. It's -- there are some things that the traditional 50 Pro systems just can't do in 60 Pro and so we're making some of those changes. We'll keep those private at this point.

But I think that's our clear path is to ultimately make as much 60% protein as we can and even start to go higher from there. But what a great success we had at Wood River during the quarter. We learned a lot going to full commercial scale. We scaled up. We spent a lot of time in the 58% range before we solve that last problem and then we spend a lot of time above 61%. So we're very happy about that, which is what you really need to do when you start averaging into these products.

So -- but what we're really more excited about is that we're getting calls in for the product now. Now it's going to take time for larger volumes, but the margin structure is there, the demand is there, the need for this high-quality, low-carbon, high digestibility, feed conversion ratio product is there and it's there not just from the United States, but we've sold now 60 Pro in smaller quantities, commercial quantities though, into Middle East, Southeast Asia, South America and growing, so we're really excited about that. And then we're really focused on some U.S. business as well.

Craig Irwin

ROTH MKM Partners, LLC, Research Division

So my follow-up question, I mean, maybe this one is for Devin. But last week, I was in D.C. meeting with lobbyists from the oil and renewable fuels industry. And a couple of people suggested that the delay of the credits we're looking for the language at the treasury is related to changes that we made in the GREET model or potentially made in the GREET model that disadvantaged green gas, in particular, and they're suggesting that there's an open dialogue about the GREET model, whether or not it needs to be revised, the original model is right.

Can you maybe just give us color on why you're confident this is likely to be finalized by the end of the year? Is there anything in the potential changes that may have happened that would impact the carbon credits the way you look at it or SAF or anything related to ethanol?

Devin Mogler

SVP of Government Relations, Sustainability & Communications

Yes, Craig, so we've heard the exact same thing. They're looking at the renewable natural gas, they're tweaking the GREET model for that. Ultimately, we think they will arrive at something that we can play in. We've heard all the indications from the administration is that they want ethanol and soy-based feedstocks to be able to play in sustainable aviation fuel. We've heard that from the President. He's actually going to be in Minnesota tomorrow. He may comment on the topic there. So while the timing does slip and they are still looking at updating the GREET model, we are confident that there will be a place for us to play there.

Operator

The next question is from Ben Bienvenu with Stephens.

Benjamin Shelton Bienvenu

Stephens Inc., Research Division

Todd, I wanted to pick up on your commentary that you offered around the contribution from Tharaldson and then the 5 MSC facilities. You talked about the \$80 million to \$120 million to next year's EBITDA. Can you help us think about kind of what determines the range there? Is it the ramping and scaling of

production or something else?

Todd A. Becker

President, CEO & Director

Yes. I mean it's a little bit of timing, it's a little bit of just watching the spreads between corn and soy and what will happen there. When we think about 560 million gallons converted, plus Tharaldson, it gets us to 640 million gallons, and we look at, let's call it, what we kind of guided earlier at \$0.15 a gallon, that gets you right in the middle of the range. So it's just kind of we're watching the ratio of corn against soy meal. What we are doing is looking at that and then saying what markets -- we get the values for exports sometimes are better than domestic and the values for domestic are sometimes better than export. But some of it is also this volatility we've seen in the soybean meal basis as of late. It's come back roaring back. But -- and 60 Pro is not even included in that at this point. So we just put it in a range around it, but the middle of the range is kind of that \$0.15 a gallon that we kind of outlined as a contribution, and then we go from there.

Benjamin Shelton Bienvenu

Stephens Inc., Research Division

My second question is on the clean sugar technology and you talked about commissioning of Shenandoah and the overwhelming demand that you're seeing there, which is really encouraging. As you think about potentially expanding that production, can you talk a little bit about your appetite for the pace of doing that? And do you think you would be in a place to self-fund that as some of your other CapEx projects start to wind down as we head into 2024 and your cash flow picks up from some of the investments you've made already?

Todd A. Becker

President, CEO & Director

Yes. I think where we look first is, obviously, Shenandoah, which is the easiest expansion and we're working with customers to look at that. We got to make sure that, relatively speaking, all of what we need resources locally are there from electricity through gas to water, all those type of things. But where we'll look after that, that's an easy one to fund. Where we'll look after that is what's the next best plan to build in? Is it a Nebraska plant on a pipeline? Or is it going to be one of our plants that really aren't on, don't have a carbon solution, maybe like a Madison or an Obion at this point. So we'll look at that.

When we look at cash generation, what we've learned this quarter now and then going into the fourth quarter is we're really set up well for free cash flow generation to start to help self-fund although we are

-- we still have a lot of cash on the balance sheet and we're generating more. But we see our -- how we set our balance sheet up with low debt levels, relatively speaking, high cash levels. You saw our rate is still sitting around 7% in a high-rate environment. New capital is much more expensive. So we would start to say, what can we fund off the balance sheet? What assets do we have if we needed to finance anything. But beyond that, free cash flow generation should take care of, I would say, plant #2 very easily over the next 12 to 18 months as we start to look at where that should be.

Operator

The next question is from Adam Samuelson with Goldman Sachs.

Unknown Analyst

This is actually [indiscernible] for Adam. I was wondering if you could provide some color on the corn basis and how has that impacted your margins in this quarter? And what would be your expectation going forward?

Todd A. Becker

President, CEO & Director

Yes. With us today, we have Grant Kadavy. He's our EVP of Commercial Operations. I'll let him give a quick comment on the corn basis and what he's seen, I wanted to introduce everybody to Grant. He'll be on future calls as well and we'll get him introduced to all of you. But Grant now runs all of our marketing and all of our proteins. Anything ---Any time anything commercializes, it will move under him and he runs our commercial operations across the platform. So Grant, real quick on the corn basis.

Grant D. Kadavy

Executive Vice President of Commercial Operations

Sure. During the third quarter, we did see the transition from old crop and new crop. So we did see a material decrease in the overall corn basis. Heading into the fourth quarter, into the new crop season, I would say we've seen more of a normalization of corn basis during harvest and then the potential for a more normalized scenario through the balance of the year.

Unknown Analyst

And as a follow-up, if I could ask on your outlook for ethanol exports, where will be your expectations going forward?

Todd A. Becker

President, CEO & Director

As we said, we've seen 100,000 barrels a day or so of export capacity, someday is a little bit higher, someday is a little less. I think obviously, the world is an interesting place today. We've got to watch where we ship our products to. But again, no lower price for octane on the planet, still. It's an advantage of what we produce globally. But generally, Canada continues to have a really strong low carbon fuel program and we see good uptake from there. And then randomly around the world, we see some going to the EU again. That market has opened up for us and generally strong. We started to see volumes again starting out in the Middle East, but with what's going on there that may drop a little bit.

But overall, we have strong exports out of the U.S., and we'll watch the Brazilian -- because when you have Brazilian sugar prices where they're at, we also have high Brazilian ethanol prices at this time. So we're able to at least get some other business coming our way. So I think we'll remain at those levels really throughout the year.

Unknown Analyst

And last one for me. As we've seen the divergence between DDGS prices and soy meal, how has that impacted the High Pro pricing competitiveness?

Todd A. Becker

President, CEO & Director

Well, I think what we saw is soy meal was quite weak earlier in the quarter and then you've seen it come roaring back. I think that's kind of what the viewpoint is that while it narrowed up during the quarter, spreads -- there's some areas that still have very strong distillers prices. North Dakota has strong distillers prices, Nebraska has strong distillers prices as well. But generally, the spread has widened back out to the levels where we're able to start to achieve our margins. When you have soy meal futures at \$425, \$426 or something like that and you've got Indiana sitting at \$175 or Shenandoah sitting at \$190, that spread's now gone on to historically wider levels, which then gives us a little bit more margin and the meal basis has rallied as well. So generally, overall, I think we're in a better position today.

Operator

The next question is from Eric Stine with Craig-Hallum.

Eric Stine

Craig-Hallum Capital Group LLC, Research Division

So I know for EBITDA for '24, I mean, it's roughly \$200 million plus ex-ethanol somewhere in that range. Not sure if you gave '25, I might have missed that. I know previously you talked about \$400 million to

\$600 million at a run rate in '25. I guess given the commentary around Summit and the carbon capture opportunity, I mean, is it better to think of low end of that range and that obviously upside as you get into '26?

Todd A. Becker

President, CEO & Director

Yes. I don't know that we gave \$400 million to \$600 million, but I think what we're talking about in '25 was the previous guidance that we gave, it still stands. And it's because really it's an advantage in Nebraska to start with Summit coming on in '26. And so -- and when you take that, when you take 60 Pro, when you take overall veg oil yields, when you take expanded protein production as we get into 2025, we're still staying in the previous guidance ranges. And then on top of that, where do you put ethanol margin on top of that. Phil, do you have any other comments on that?

Phil Boggs

Executive Vice President of Investor Relations

No, I think that's right, Todd. We're still in those ranges that we've laid out previously. The path forward to 2025 includes completing the facilities, bringing those new facilities online sometime in 2025 with Madison and Fairmont.

Operator

The next question is from Salvator Tiano with Bank of America.

Salvator Tiano

BofA Securities, Research Division

Yes. So firstly, I wanted to understand, you made these comments about kind of the asset base aging and you guys are making some changes. You're going to just modernize your assets. Can you provide us some details on what this entails in terms of CapEx spend in the next few years? And also whether we should expect any meaningful EBITDA contribution from this plant?

Todd A. Becker

President, CEO & Director

Well, look, what we produced this quarter at 94% was rounded up to 0.1%. But what we produced this quarter at 94%, we still have a ways to go. We can get more out of these plants. And we're just starting to unlock the capabilities of these plants from the last round of CapEx. And some of that's coming through automation. So it's a little bit lower, cheaper to do that. We have literally working around the clock to put as much automation as fast as we can in these plants, not because our employees or labor, it's just because we got -- we can operate better when we're managing that through automation, whether it's how much enzymes go in the fermenter, whether it's how much yeast is going to get applied and make sure it gets applied consistently every day at the same rate and what we want it to be applied at and less room for human error, which we learned, obviously, was a bit of a headwind at times.

And so those are not high-cost CapEx relative to making our plants run better. There's still more to unlock, we can ultimately make over I believe, over 100% of our stated capacity, that's coming down the road. I mean, we can -- we have more to unlock in these assets. Madison, we're held back on permit on how much ethanol we can make, and we're maximizing that every single day. And we're not making the full capability of that plant because we're waiting for Illinois, hopefully, to expand our operating permit not just for protein, but to give us more ethanol headway as well. So we can make more ethanol.

And part of that -- and the second thing is that we have to invest smart and correct in all of these plants. And that's why I brought a new team in. The old team can take us so far and the new team is really taking us to the next level. It's a little bit uncomfortable for some people when we want to run these plants harder and it's a bit like the analogy you use when you have -- I've heard this a few times. When you have a Ferrari, you don't run it in first gear. You try to run it as hard as you can. We know they're going to break a little bit, but then you get through that and you keep going. And so while we say we're going to modernize our plants, we've done a lot already. Now we're going to maximize that investment. And so I

don't think our CapEx relative to our plants change as much past our previous guidance. Jim, what is our normal CapEx range?

James E. Stark

CFO & Principal Accounting Officer

I would say to answer Sal's question, when you look at historically, we spend somewhere between \$30 million to \$35 million in CapEx -- maintenance CapEx and another \$30 million to \$35 million on other growth initiatives outside the big MSC or dextrose or sugar projects that we have. So if you take those 2 together in the \$60 million to \$70 million range of kind of normal capital that we would spend, so the modernization, the upgrades we will spend on will be within -- contained within that on an annual basis. So it's not going to -- there might be a little bit more in maintenance CapEx, a little less in growth initiatives. But I would tell you, when you look at next year, we're still dialed in to be probably plus or minus around \$150 million of capital next year, including one of the big MSCs to get -- to really get built during the year.

But when you look at historically, that's way down from certainly what we spent over the last few years. So we feel very good about where we are from managing the capital side. Also to remind you, once the partnership is completed, there's an additional \$25 million plus of free cash flow that stays home that can help us fund these projects going forward.

Salvator Tiano

BofA Securities, Research Division

Perfect. And I also wanted to clarify a little bit on the 60 Pro side. Firstly, you're getting the renewals. So as we think about Q4, is it going to comprise perhaps 5%, 10%, 15% of your high protein sales as I think was -- there were some targets regarding that? And secondly, can you clarify a little bit the comments that \$80 million to \$120 million will be the High Pro contribution next year, but there's upside from High Pro -- from 60% High Pro. So what does that mean essentially in terms of what's assumed in your base case, \$80 million to \$120 million? What's -- how can we quantify the upside and what will define whether you do get that upside or not?

Todd A. Becker

President, CEO & Director

Yes. So much like 50 Pro, it takes time to get full uplift. And so that's where rather we can make 60 Pro and commercial quantities, we've proven that to the market. The market now starts to adapt to that. I think when we look at 60 Pro for 2024 and the goal of 20% to 30% of our platform shipping, it's probably -- well, not probably, it increases during the year as a percentage. So we have identified and outlined enough demand for all of our 50 pro and all of our 60 Pro we produce. It's really about getting that executed into the market and that will just grow during 2024 fiscal year. When we gave you the outlined guidance, it's 560 million gallons converted today, half of the Tharaldson earnings, which is about 85 million gallons gets us to about 650 million gallons, that \$0.15 midrange margin, that's about \$100 million a year roughly of guidance for 50 Pro.

Now if we do better because of the -- if you look at the spread between meal or protein and corn, that's wide right now. So possibly that gives us the higher end of the range. And if it narrows in, it gives us the lower end of the range. And then on top of that, we see and watching the corn, watching the meal base obviously watching Argentina what's going on there. And then on top of that, depending on how much and how fast the 60 Pro uptake happens. As we said, it probably grows during the year, it accelerates towards the [indiscernible] and then into '25. That's where the upside is.

Operator

The next question is from Andrew Strelzik with BMO.

Andrew Strelzik

BMO Capital Markets Equity Research

So I guess the first question is on the corn oil side and the decision to lock some of the prices at the higher levels. How much of that and how far out did you go? And has anything changed in your thinking with respect to your willingness to do that on an ongoing basis?

Todd A. Becker

President, CEO & Director

I think corn oil is a different animal for sure, right? I mean, we saw veg oil prices starting to weaken. We noticed that there are some downtimes. We were able to -- I mean, look, I wish we locked it in higher, but we didn't. But I mean we locked it in above market, and we just put it out for the quarter, a little bit of Q1, but not very much. And so I mean, the market doesn't extend coverage much further than that anyway. So we were able to get most of our sales on. I think we're fortunate to be able to do that. But I mean maybe \$0.05 to \$0.07 a pound above market today. There's nothing dramatic -- it doesn't change our view at all.

Our view in '24 is steady and our view in '25 is strong because of the conversion to the IRA and 45Zs and all the credits available and the advantage for corn oil once that starts to happen. It's overall, we're focused on quarter-to-quarter and we'll have to deal with some of that volatility. But I think generally, we stabilized oil -- against the oil meal online.

Andrew Strelzik

BMO Capital Markets Equity Research

And then obviously, there's been a lot of headlines and news around carbon sequestration away from what you guys are doing and the optimism that you have around the Nebraska plants. So I guess my question is, is there anything with those Nebraska plants that could get in the way of that optimism? Or I guess, are there any hurdles left? Or how are you thinking about the line of sight to the EBITDA potential from those plants specifically within the carbon sequestration?

Todd A. Becker

President, CEO & Director

Yes. I think our line of sight is very strong there. The project is on track. Most of what is needed. It's funded. There's no funding needed for that project. So -- and then we've been able to secure what we need from a compression standpoint as well. So every day, we just -- we evaluate it. It's not a lot of right of way that has to happen. And overall, most of which -- a lot of it's -- that part is kind of derisked the ready, and it's really about converting what's happening there into transportable assets and then going into a state like Wyoming, which has primacy so you don't have an EPA permitting process. I think that's key. I think that's a key to the Summit project as well, which is going in North Dakota with primacy. It's a great choice to make relative to having to go to the EPA for permitting, which is like 70 or 80 or 90 permits that are still in backlog today, where I think when you're in those couple of states, it's advantaged Summit, which is why they're still persevering advantage in Nebraska, which is why they're still in a strong position.

So look, at the end of the day, if none of it happens, it's a different discussion, but we're confident, at least from the standpoint of what we outlined and then the numbers that we previously outlined in Nebraska advantaged Nebraska and our assets there. It's really advantaged Green Plains shareholders, quite frankly, as we're one of the biggest producers in the state.

Andrew Strelzik

BMO Capital Markets Equity Research

And then if I could just squeeze in one more clarification. You mentioned where basis was relative to the 5-year average in the third quarter. Obviously, it's gotten much better. Did you quantify or how can we think about the delta or the contribution there as we roll forward and the change in the corn basis?

Todd A. Becker

President, CEO & Director

I'll let Grant talk just a little bit about maybe Nebraska and Iowa corn basis, what we've seen here recently from the highest of the lows and kind of where we're stabilizing. But I think what the key is, is that we're getting a little more towards traditional levels, but I don't think we're fully there yet, but go ahead, Grant.

Grant D. Kadavy

Executive Vice President of Commercial Operations

Yes. I think as Todd is mentioning, specifically, one of the major changes that we saw was in Nebraska, where we're coming off a crop year where we had a lack of production in Nebraska, we've now seen that to be one of the areas where we've had the greatest year-over-year change in production and production levels have improved dramatically. If you look at where corn basis was at its high in last year in Nebraska, the basis levels were well in excess of \$1 over of the CME. Basis levels have, again, I'd say, normalized quite a bit to where we've seen values come off close to \$1 a bushel. I think once you get post harvest, a farmer puts their crop away, you're going to see traditional sort of ups and downs and slight movements in the market, but we don't expect that we're going to see basis levels return to the values that we saw in the last few years.

Operator

The next question is from Kristen Owen with Oppenheimer.

Kristen Owen

Oppenheimer & Co. Inc., Research Division

Two quick ones for me. First, on MSC protein. If you can speak a little bit to the spread over DDGs. And then, Todd, you mentioned sort of looking out the soybean meal versus corn ratio, soybean stocks very tight, corn, not so much. So just wanted to ask how much pricing you're willing to lock in for 2024?

Todd A. Becker

President, CEO & Director

Well, most people are starting to move from flat price to plenty of sales on basis. We don't see extended -- other than a few of our longer-term customers like the pet business that we redid and were awarded for 2024 again. A lot of the business is on basis and a lot of it is done quarter-by-quarter, more than it has done for the whole year. Kind of when you look out forward, even out forward, the spread between corn and meal continues to remain strong, which means DDGs against meal remains strong. You can go all the way out to April or go out further than that and you're well over \$200 a ton spread. So we'll have to wait and see what corn does.

But it's advantaged our business that we've outlined. I mean this is -- as we've indicated, we had a thesis that the world's protein short and the world was oil short. That was a long thesis that we've developed over time, and it's playing -- kind of playing out that way with genetics and corn and acres and yields relative to the tightness in soy. So it's kind of playing out nicely. We went through some years where it was the opposite. So kind of remember as we were ramping up. Some of that was the opposite was happening.

And we even saw that as of late even in the last kind of 120 days. But finally, we've readjusted to the current USDA numbers. And I think that will stay around for a while.

And I think the next big thing we'll look at is acreage for 2024. And what's the shift and what's advantaged in any given state. But at this point, it doesn't look like it's going to change much. So we're pretty happy about that position.

Kristen Owen

Oppenheimer & Co. Inc., Research Division

And then sort of a related question, just given the advantage of corn, talking about the sugar markets and the favorable backdrop for dextrose, no additional capacity coming online there, except for your own. I'm just wondering if you can talk a little bit about how quickly you can get Shenandoah scaled up in the first half of the year? And apologies if you did discuss this, but just where you are in terms of an offtake

discussion there?

Todd A. Becker

President, CEO & Director

Yes. So relative to the lower corn prices, they're still relatively high towards that \$5 a bushel. So dextrose pricing has remained steady to strong. We've seen customers who call us and say they've been put on allocation from the traditional players. So there's definitely a demand and growing demand, quite frankly, from the -- all the way from beverage to chemical use down into candy and confectionery and then you -- so ours is coming out next year. It's not going to be dramatically changed the supply and demand balance sheet for dextrose 2024, there's one other project that was, I think, announced a few years ago over in Fort Dodge at 200 million pounds or something like that.

But generally, we think we're in a strong position. Offtakes, we have -- we're negotiating at this point with several customers on, I want to make sure that we hit the window correctly because as you are commissioning a brand-new technology and we learned from MSC, it can take longer than we probably expected. So we're going to be very careful. But generally speaking, we are trying to get most of our production that we're going to produce in 2024 spoken for and we have enough discussions going on for that to happen. And it's a bit of a -- I think we'll get some of that done by the end of the year as we negotiate.

As we say, if you -- this is kind of our, I will tell you, a bit of a motto of ours. If you -- if we buy products from you and you use dextrose, then we're going to have a bilateral arrangement that you'll be buying dextrose from us or else we won't buy the product that we'll look elsewhere. So we feel like we buy a lot of product that's made using dextrose into our operations. And so that's our first -- but we have good rate partners. So that's not -- it's not a -- it's certainly not anything that is antagonistic. It's just the fact that we believe we're finally in a position to have some bilateral arrangements and that's really where our first dextrose will go as we scale up and get food grade certified in the last half of the year and then we move more into the beverage and other markets as well. So we're really happy about that.

As you can see, there's tons of new or lots of new technologies that are coming online as well that are going to take more and more dextrose over the next 5 to 10 years. And we just think we're in a great position. We will show the world what this platform can really do. And the margin structure is extreme -- there's nothing stronger from a margin structure than there is to make dextrose at our plant and the first of its kind in the world will happen next quarter.

Operator

No further questions. At this time, I'll turn it to Todd Becker for any closing remarks.

Todd A. Becker

President, CEO & Director

Well, thanks for being patient with us. A lot of questions. We had a lot to cover. We're on track. We feel like we have more to unlock in our core business, which I think that's a renewed focus on that in terms of getting more oil, getting more alcohol, getting more distillers grains, but really starting to gain momentum in our new technologies. Yes, we wish we could go faster on building more. We have the demand for it. We've identified the demand for all of our products. And next stop is clean sugar in Shenandoah in the first quarter, starting to commission that plant, and that's really the game changer. And then we get into '25 and we see great earnings start to transpire from some of our carbon initiatives. So overall on track. I feel like this was a good quarter to get a win on the board, operations returning back to normal, but more to unlock there as well. So we appreciate all your support, and we'll see you next quarter. Thank you.

Operator

This concludes today's conference call. Thank you for participating. You may now disconnect.

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