LyondellBasell Industries
Third Quarter 2024 Earnings Call
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<u>**Presenters**</u>
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Torkel Rhenman, EVP of Advanced Polymer Solutions

<u>**Q&A Participants**</u>
Vincent Andrews - Morgan Stanley
Patrick Cunningham - Citigroup Inc.
David Begleiter - Deutsche Bank AG
Jeffrey Zekauskas - JPMorgan Chase & Co
Aleksey Yefremov - KeyBanc Capital Markets Inc.
Joshua Spector - UBS Investment Bank
Frank Mitsch - Fermium Research
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Operator
Hello, and welcome to the LyondellBasell Teleconference. At the request of LyondellBasell, this conference is being recorded for instant replay purposes. Following today's presentation, we will conduct a question and answer session.

I would now like to turn the conference over to Mr. David Kinney, Head of Investor Relations. Sir, you may begin.

David Kinney
Thank you, operator, and welcome, everyone, to today's call. Before we begin the discussion, I would like to point out that a slide presentation accompanies the call and is available on our website at www.lyondellbasell.com/investorrelations. Today, we will be discussing our business results while making reference to some forward-looking statements and non-GAAP financial measures. We believe the forward-looking statements are based upon reasonable assumptions

and the alternative measures are useful to investors. Nonetheless, the forward-looking statements are subject to significant risk and uncertainty. We encourage you to learn more about the factors that could lead our actual results to differ by reviewing the cautionary statements in the presentation slides and our regulatory filings, which are also available on our Investor Relations website.

Comments made on this call will be in regard to our underlying business results using non-GAAP financial measures such as EBITDA and earnings per share excluding identified items. Additional documents on our investor website provide reconciliations of non-GAAP financial measures to GAAP financial measures, together with other disclosures including the earnings release and our business results discussion.

Joining today's call will be Peter Vanacker, LyondellBasell's Chief Executive Officer, our CFO, Michael McMurray, Kim Foley, our Executive Vice President of Global Olefins & Polyolefins and Refining, Aaron Ledet, our EVP of Intermediates and Derivatives, and Torkel Rhenman, our EVP of Advanced Polymer Solutions. During today's call, we will focus on third quarter results as well as updates on our long-term strategy. We will also discuss current market dynamics and our near-term outlook. With that being said, I would now like to turn the call over to Peter.

Peter Z. Vanacker
Thank you, Dave, and welcome to all of you. We appreciate you joining us today as we discuss our third quarter results. And yet again, our people did an excellent job navigating challenging market conditions, while remaining laser-focused on the execution of our strategy. Our low-cost footprint in the Americas and the Middle East continue to perform well to capture profitable growth in olefins, polyolefins, propylene oxide and oxyfuels.

Let's begin with Slide 3 and discuss our continued leadership in safety performance.

LYB's success in operational performance starts with a core focus on safety. Our GoalZERO commitment is to operate safely with zero injuries, zero incidents and zero accidents.

Our focus is demonstrated by LYB's September year-to-date total recordable incident rate of 0.13. We are very proud of the continued commitment to safety from our people. Our company is exceeding the safety performance of the top quartile peers in our sector.

Please turn to Slide 4 as we briefly review the financials for the quarter.

Our third quarter results demonstrate our ability to generate value despite very challenging market conditions. A sharp decline in gasoline crack spreads drove sequentially lower quarterly results for refining and oxyfuels, but we were able to run our newest PO/TBA assets at nameplate capacity. Strong ethylene margins and outstanding cracker utilization allowed our Olefins and Polyolefins Americas segment to post a 13% sequential EBITDA improvement, the strongest quarter for the segment since the second quarter of 2022.

As a result, earnings were $1.88 per share with EBITDA of $1.2 billion. LYB generated $670 million in cash from operating activities, maintaining strong cash conversion on a weaker profit base. Our return on invested capital remains above our cost of capital, and our cash conversion remains robust.

We continue to advance our long-term strategy with good progress during the quarter.

On Slide 5, we highlight one of these milestones. In September, we started construction of our *MoReTec*-1 facility in Wesseling, Germany, our first commercial-scale plant utilizing LyondellBasell's proprietary catalytic advanced recycling technology. The investment is a clear indication of our commitment to European brand owners and OEMs. German Chancellor, Olaf Scholz, and other top officials attended the event to demonstrate solid governmental support. The innovative nature of our proprietary technology has been underlined by the fact that the EU Innovation Fund awarded *MoReTec*-1 a EUR 40 million grant.

MoReTec-1 is expected to start up in 2026, with capacity to produce 50,000 metric tons per year of cracker feedstocks recycled from hard-to-recycle mixed plastic waste. The recycled feedstocks will be used in our existing olefins crackers and produce high-value circular polymers that are indistinguishable from fossil-based polymers.

Our proprietary *MoReTec* technology is unique, with a plastic-to-plastic yield of more than 80%, low energy intensity, the ability to utilize 100% renewable electricity, and half of the carbon footprint compared to fossil-based feedstocks.

As a leader in the market today, we continue to see healthy margins for our recycled and renewable-based polymers given the strong demand and limited supply for these materials. This profitability is core to the second pillar of our corporate strategy: to create a profitable Circular & Low Carbon Solutions or “CLCS” business. We continue to expect annual CLCS incremental EBITDA of $1 billion by 2030.

As we build our first integrated hub in Germany, we are also planning our second integrated hub for Houston. Please turn to Slide 6 as we discuss the future of our Houston Refinery site.

We continue on our path to close the refinery by the end of the first quarter of 2025, another strategic milestone for LYB. We're exiting a volatile, low margin business to focus our resources on opportunities for sustainable value creation. Kim will discuss the financial implications of the refinery closure later in the call. On this slide, we outline three projects under consideration for the future of the refinery site.

The first project, subject to a final investment decision, is to utilize a portion of the site for a second larger *MoReTec* unit. We expect that *MoReTec*-2 will be twice the size of our German plants, with the capacity to produce 100,000 tons of cracker feedstocks.

We plan to leverage upon our existing hydrotreaters at the refinery and retrofit them. This will allow us to upgrade both the recycled feedstocks coming from our *MoReTec*-2 unit and feedstocks from third-party suppliers for use in our olefins crackers for the production of circular and low-carbon *Circulen*Revive polymers.

The second project under consideration is to retrofit some of the other refining assets to produce renewable and bio-based feedstocks. These feedstocks would also be used in our existing olefins crackers for the production of circular and low carbon *Circulen*Renew polymers.

And with a substantial array of utilities, laboratories, pipelines, storage, logistical assets and other infrastructure on the 700 acre site, the refinery provides ample opportunity for investments and partnerships to support LYB's continued growth in low-carbon feedstocks and products.

Although crude refining at the site will end, we have several opportunities to repurpose the site to capture sustainable value. We are leveraging our existing cost-advantage assets to satisfy growing market demand for circular and low carbon solutions.

I will now turn the call over to Michael to discuss our financial progress.

Michael McMurray

Thank you, Peter, and good morning, everyone. Please turn to Slide 7 and let me start by discussing our cash generation.

Over the past year, LyondellBasell generated $3.4 billion of cash from operating activities. Our team converted EBITDA into cash at a 77% rate over the last 12 months, broadly in line with our long-term target of 80%. Difficult market conditions have persisted, pressuring our third quarter cash generation. However, we see potential tailwinds from lower global interest rates and economic stimulus measures in China. In the fourth quarter, we expect cash generation to improve.

In the third quarter, we were able to maintain strong shareholder returns, with dividends and share repurchases totaling almost $1.8 billion over the last 12 months. At the end of the third quarter, our cash balance was $2.6 billion. Despite being at a challenging point in the cycle, our balance sheet remains robust, with less than two turns of net debt to EBITDA and available liquidity of $7.3 billion.

Let's continue with Slide 8 and review the details of our third quarter capital allocation.

As Peter mentioned, we generated $670 million of cash from operating activities. During the quarter, we returned $479 million through dividends and share repurchases while funding $368 million of capital investment.

Our team remains focused and committed to balanced and disciplined capital allocation, especially during difficult market conditions. We are expanding profitability with high-return investments in our Value Enhancement Program. We expect to unlock $600 million in recurring annual EBITDA by the end of this year and contribute $400 million of EBITDA during 2024. We are on track to shut down refining operations with valuable options for the future of the site. And to grow and upgrade our core, our European asset review is well underway, and we are gauging market interest for the five olefins and polyolefins assets that we discussed last quarter.

Let's turn to Slide 9, and I'll provide a brief overview of our segment results.

LYB's business portfolio delivered $1.2 billion of EBITDA during the third quarter. Lower crude prices and gasoline crack spreads led to lower profitability for both the Refining segment and the oxyfuels business within the I&D segment. The decline in these two businesses exceeded the sequential net decline in profitability at the consolidated group level. Improved ethylene margins and our strong cracker operations from our O&P-Americas segment provided upside.

With that, I'll turn the call over to Kim. Kim?

Kimberly Foley

Thank you, Michael. Let's begin the segment discussions on Slide 10 with the performance of the Olefins and Polyolefins Americas segment.

During the third quarter, O&P-Americas EBITDA was $758 million, up 13% quarter-on-quarter and 50% year-on-year. Integrated polyethylene margins were supported by low ethane and natural gas costs, coupled with higher polyethylene prices following the successful July price increase.

During the quarter, the industry experienced increased cracker downtime, which led to lower ethane costs and tighter ethylene supply supporting olefin margins. LYB's U.S. crackers ran at 95% rates during the quarter, which includes the impacts of Hurricane Beryl in July. Our strong operational performance allowed us to capture the opportunity for favorable margins with our merchant ethylene sales and benefited integrated polyethylene margins. We estimate that the additional profitability from our merchant ethylene sales alone offset approximately $50 million of estimated EBITDA impact from Hurricane Beryl. The segment's third quarter profitability exceeded last year's results by 50% and reached levels not seen since the second quarter of 2022.

North American industry demand for polyolefins continues to exceed 2023, with September year-to-date polyethylene and polypropylene sales volumes up 7% and 4%, respectively. Industry exports of polyethylene are up 11% September year-to-date, with 46% of North American industry sale volumes sold in export markets. LyondellBasell's U.S. polyethylene business holds a stronger domestic market share than our local peers, with only 26% of LYB September year-to-date polyethylene volumes exported. As such, we did not experience any material disruptions during the brief port strike.

In the fourth quarter, we anticipate the typical seasonal trends of softer demand and customers' desire to minimize year-end inventories could constrain price increase initiatives. In addition, sequentially higher natural gas and ethane prices are likely to pressure integrated margins. Nonetheless, as of this week, our October North American polyethylene orders are the strongest we've seen so far in 2024. Despite volatile oil prices, the favorable oil to gas ratio continues to provide an advantage for North American producers relative to oil-based production in other parts of the world. LYB remains well positioned as a leading producer in North America with strong customer relationships built over decades.

During the fourth quarter, we will remain focused on aligning our operating rates to serve domestic and export market demands, targeting 85% utilization across the segment, with higher cracker utilization offset by lower polypropylene rates given the ongoing soft demand for durable goods markets.

Please turn to Slide 11 as we review the results of our Olefins and Polyolefins - Europe, Asia and International segment.

In the third quarter, demand in the markets served by our O&P-EAI segment remained stable, with no indications of macroeconomic recovery likely for the remainder of this year.

The segment generated EBITDA of $81 million. Volumes declined as we began a planned turnaround at our largest cracker in Europe. Segment EBITDA improved sequentially as lower fixed and feedstock costs led to a higher integrated polyethylene margin.

In the European market, we are seeing increased talk of strategic evaluations and capacity rationalizations across our peers. As in the U.S., we expect seasonal softening of demand for olefins and polyolefins. The drive for minimizing year-end inventories will also pressure European markets. In China, we are encouraged by the recent stimulus initiatives, but we have yet to see where the initiatives are resulting in improved market demand.

Operationally, planned maintenance at our large Wesseling cracker in Germany will continue into the fourth quarter. As a result of this planned maintenance and softer seasonal demand, we are targeting operating rates of approximately 60% during the fourth quarter.

We continue to make progress on our strategic objectives in O&P-EAI segment. Our European review is underway. In addition to starting the construction of our *MoReTec*-1 in September, we also acquired full ownership of APK in October, allowing us to integrate APK's unique solvent-based low-density polyethylene recycling technology as part of our comprehensive portfolio for building a profitable CLCS business.

Now let's turn to Slide 12 and review the results of the Refining segment.

In the third quarter, lackluster demand and high industry operating rates compressed margins and resulted in an EBITDA loss of $23 million. Crack spreads for both gasoline and distillate fuels declined during the quarter. Our distillate hedging program offset some of the margin declines.

In the near term, we expect further margin compression as the Maya 2-1-1 crack spreads continue to fall. We intend to operate at approximately 90% of capacity in the fourth quarter. We remain focused on safe and reliable operations as we move forward shutting down the refinery during the first quarter of the year.

As Peter outlined earlier, our team is making good progress in evaluating strategic projects to transform the refinery site in support of our growth strategy. We have also kept the impacts of our people top of mind throughout this transformation. Since 2022 when we announced our intention to shut down the refinery, we have carefully managed staffing levels. As our staffing requirements decrease following the shutdown, we intend to retrain and redeploy as many affected employees as possible for the next stage of their careers with LYB. Nonetheless, some employees will end up leaving our company, and we will comply with all applicable laws and support our people as best possible.

Now let's turn to Slide 13 and outline more details on the operational and financial impacts from the refining exit.

Following the holiday season, we plan to begin shutting down the first crude and coker train during January of 2025. Then in February, we expect to begin the shutdown of the second crude and coker train, the FCC, and other ancillary units. This staged approach is designed to ensure a safe, orderly and responsible shutdown of these complex operations.

The refinery shutdown impacts both earnings and cash flow. We have been accruing costs related to the shutdown on our income statement since we announced our intentions in April 2022. However, once the shutdown begins in 2025, we will begin to realize the cash impacts depicted on this slide. During 2025, we expect to release working capital that more than offsets the cash cost of shutting down the refinery. We expect a net cash benefit of approximately $175 million during 2025, assuming a Brent crude price of $80 per barrel.

We expect the Refining segment will be reported as discontinued operations from the first quarter of 2025. Within discontinued operations, the ongoing costs related to the former Refining segment are expected to be less than $50 million a year. These are the estimated costs for keeping the site safe while maintaining operational capability for selected assets and infrastructure.

With that, I will turn the call over to Aaron.

Aaron Ledet
Thank you, Kim. Please turn to Slide 14 as we look at the Intermediates and Derivatives segment.

In the third quarter, segment EBITDA was $317 million, a decline of $184 million driven by a material decrease in raw material margins for oxyfuels. Oxyfuels margins fell on the declining gasoline crack spreads and slightly higher prices for butane raw materials.

Our Propylene Oxide & Derivatives business encountered headwinds due to volatile prices for propylene feedstocks and volume impacts from Hurricane Beryl and planned maintenance. While we are encouraged by the potential for lower interest rates to drive recovery in PO&D demand from durable goods, we do not expect markets to materially improve during the remainder of 2024. Our intermediate chemicals business was impacted by declining styrene margins due to ample market supply.

During the quarter, our newest PO/TBA asset ran very well. And although volatile fuel markets negatively impacted this quarter's oxyfuels results, we believe the fundamentals for this business remain supportive. Our proprietary PO/TBA technology produces oxyfuels from butane at a sizable discount to crude oil used in gasoline production. Global demand for octane and gasoline remains strong, and our oxyfuels provide some of the highest-octane levels of all of gasoline blend stocks. We expect our PO/TBA assets will continue to provide a world-leading cost advantage for propylene oxide and oxyfuels. LYB is well positioned to capture opportunities from demand growth and high-cost supply rationalization.

As we move through the fourth quarter, we expect lower seasonal demand across most of our I&D businesses, with oxyfuels margins remaining low, consistent with seasonal norms.

In line with our guidance, planned maintenance at one of our Bayport PO/TBA assets will continue into the fourth quarter. We will continue to match our production with market demand and expect to operate our I&D assets at rates of approximately 75% during the fourth quarter.

With that, I will turn the call over to Torkel.

Torkel Rhenman
Thank you, Aaron. Please turn to Slide 15 as we review the third quarter results for the Advanced Polymer Solutions segment.

Third quarter EBITDA was $19 million. The APS segment faced weaker demand, particularly in the automotive sector where third quarter global production dropped by 5% from the prior year. The automotive downturn created substantial headwinds for both volumes and pricing.

Despite these market headwinds, APS continues to grow through improved win rates in critical markets and improved manufacturing efficiency. As for the third quarter year-to-date, APS EBITDA is up by more than 20% over 2023. Resilient demand from packaging markets allowed us to grow year-to-date volumes and margins in our masterbatch business relative to the first nine months of last year, and we are now realizing the cost benefits from our effort to rationalize 18 APS manufacturing sites around the world over the past six years.

Looking ahead, we continue to focus on earning additional high-value business by further improvements in our Net Promoter Scores and win rates with customers to restore our growth pipeline. In addition, the APS team continues to optimize working capital to improve cash flow from the business.

We're investing in our core team with a growth and value mindset to deliver on our long-term goals for the APS business.

With that, I will return the call back to Peter.

Peter Z. Vanacker

Thank you, Torkel. Please turn to Slide 16, and I will discuss the results for the Technology segment on behalf of Jim Seward.

Third quarter EBITDA of $69 million was lower than the guidance we provided during the second quarter telephone conference. The lower results were due to several customers not achieving the licensing milestones that were expected to occur during the third quarter, but these milestones are on track for the fourth quarter. Catalyst volumes improved on the stronger U.S. demand.

In the fourth quarter, we expect modest improvements in licensing revenue will drive slightly higher sequential results.

Now let me share our views on our key regional and product markets on Slide 17.

In line with our earlier comments, we expect that typical seasonal demand patterns will result in lower fourth quarter profitability across most of our businesses, with the potential for improvements deferred until 2025.

In the Americas, polyolefin demand is improving relative to 2023. While U.S. natural gas and ethane prices have increased since August, North American costs remain quite favorable on a global scale and should continue to benefit integrated polyethylene margins.

Within Europe, market demand remains muted but stable. We see limited downside from typical reductions in seasonal demand. Indications of near-term market recovery remain elusive, but we are watchful for the potential for demand improvements resulting from lower interest rates. Pressures from prolonged trough conditions and the need to reinvest in aging assets are likely to reshape the European chemical industry. Several peers are following LyondellBasell's lead and announcing programs to transform their European footprint through asset sales, capacity rationalization and other actions. These initiatives are likely to result in a smaller European supply base that is better aligned to serve future local demand.

Chinese markets are slowly but steadily improving from levels far below pre-pandemic conditions. We continue to monitor the impacts of recent stimulus initiatives and remain watchful for catalysts that could benefit demand during 2025.

In packaging markets, we continue to see steady demand, with some customer discrimination in favor of affordability.

In building and construction markets, U.S. stimulus programs are driving increased investments in infrastructure, and lower interest rates and pent-up demand are expected to provide tailwinds to both industrial and residential activity.

Within automotive markets, production slowed during the third quarter as OEMs took seasonal downtime, and higher inventories curtailed production. Demand is expected to remain muted during the fourth quarter as customers wait for lower borrowing costs and steeper discounts.

And in oxyfuels and refining, we expect that third quarter concerns over a weaker demand for fuels in China and strong refinery utilization rates will continue to pressure gasoline crack spreads. Margins are likely to be further constrained by lower seasonal demand.

Our focus remains on strong operations and optimization across our global footprint to capture market opportunities, and as Michael emphasized, we are laser-focused on robust long-term cash conversion.

Now let me summarize our outlook and our long-term strategy on Slide 18.

The third quarter proved to be more challenging than expected, with markedly lower oxyfuels and refining margins only partially offset by improved North American olefins margins. Given the lower third quarter results, we now expect that our profitability for the second half of the year will be lower than our first half results.

During the fourth quarter, we expect the impacts from slow global growth will be compounded by softer seasonal demand. Despite these challenges, our North America and Middle East integrated polyolefins production should benefit from low natural gas and ethane prices relative to higher-cost oil-based production in other regions. Against this backdrop, we remain focused on disciplined capital allocation and working capital management.

Our clear investment criteria and resilient core businesses allow us to remain focused on executing our strategy throughout the cycle. The company's balance sheet is in great shape, and we are well positioned to capture opportunities as they arise. We are upgrading our portfolio through our European strategic review and the exit of our Refining business. At the same time, we are growing core capabilities to create sustainable value through investments in Germany and additional plans underway for Texas. And our Value Enhancement Program is on track to unlock at least $600 million of recurring annual EBITDA by year-end 2024 and $1 billion of recurring annual EBITDA by the end of 2025.

Our strategy will not only grow our company but will also reshape our business portfolio to improve profitability and create sustainable competitive advantages.

I am proud to lead this dedicated team as we take decisive actions to unlock value, reshape LYB, and position our company for sustainable future success. Now with that, we are pleased to take your questions.

Operator
Thank you, sir. And ladies and gentlemen, at this time, we will begin the Question-and-Answer session. As a reminder, if you have a question, please press the star followed by the 1 on your touchtone phone. If you would like to withdraw your question, please press the star followed by the 2. We do ask you to limit to one question.

Our first question comes from the line of Vincent Andrews with Morgan Stanley. Please proceed with your question.

Vincent Andrews
Thank you, and good morning, everyone. I wanted to follow up on some of the comments that were made about the North American polyethylene market. And in particular, I believe it was stated that October has the strongest orders year-to-date, but there were some other comments at the same time about expecting the typical seasonal slowdown and that hindering potential price achievement.

So, there's a little bit of a tension between those two ideas that customers are loading up now in October, ahead of maybe price declines later on. So, what do you think is causing that strength in orders in October?

Peter Z. Vanacker
Good question, Vincent. Thank you very much. I think we need to look also a little bit to September to understand October. September was a little bit slower compared to the two months before. So, there's a bit of an overhang in orders from September that we actually see coming in October.

But as said, we do expect the seasonality as usual towards the end of the year, November and December, that there will be working capital management along the value chain. With that, Kim, anything you want to add?

Kimberly Foley
I would just make a couple of additional comments, Peter, specifically around North America. As we alluded to in our prepared remarks, you saw a feedstock advantage with ethane going into July and August.

And then you saw industry capacity down, resulting in a spike in ethylene price that challenged integrated margins. So, as they entered September, a lot of customers considered, "where is the ethylene price and integrated margins going to go from where they are?". And there was also a fall in crude price to consider.

So, customers were optimistic that the crude price would continue to fall and they would see export pricing compete with domestic pricing. And as you've seen over the last couple of weeks, the crude pricing has stabilized more. And you continue to see the demand is there for both exports as well as domestic, so that's why there's that tension and that's why October is so strong.

Operator
Thank you. Our next question comes from the line of Patrick Cunningham with Citi. Please proceed with your question.

Patrick Cunningham
Hi, good morning. I think Aaron alluded to the volatility in PO and derivatives. Now that you're running the new asset fully, how much of the decline in the quarter was related to unplanned downtime versus weaker variable margin? And what were overall operating rates in the quarter? And then in terms of 4Q, do you still expect similar levels of maintenance, or is that an additional drag sequentially?

Aaron Ledet
Yes. Thank you for the question, Patrick. I'd say despite the challenging market environment, the positive takeaway is that sales are up 4% globally year-over-year through the third quarter, with all of the growth really coming from Europe and the U.S. Higher propylene prices in the U.S. are actually limiting exports to Asia, so you see that impacting our operating rates.

And as we look to the fourth quarter, we expect operating rates of 75%. That is impacted, as mentioned in my planned remarks, by the Bayport turnaround, which we've just recently started at the end of October. As we look forward, we're still optimistic that the interest rate reductions and the stimulus packages will have some favorable impact on durable demand, but it's not likely to occur in 2024.

Operator
Thank you. Our next question comes from the line of David Begleiter with Deutsche Bank. Please proceed with your question.

David Begleiter

Thank you. Good morning. Peter, just on polyethylene pricing, do you expect polyethylene prices to decline in the fourth quarter?

Peter Z. Vanacker
Hi, David. It's a good question, of course, yes. And I'm going to pull up my crystal ball. You know that we have two additional price increases in the market: $0.03 per pound for October, $0.03 per pound for November. A bit premature to say because, at the beginning of November, as you know, discussions are ongoing to see if price increases will be successful or not.

If I look at the underlying demands, and Kim alluded to that, domestic U.S. demand being up by 6%, year-to-date being up by 4% compared to last year, capacity utilization above 85%, exports up by 11%, good demand in October that we just explained, or Kim explained. So, we remain hopeful that we will see part of the price increases go through. But as said, it remains to be seen because these discussions are currently ongoing.

Operator
Thank you. Our next question comes from the line of Jeff Zekauskas with JPMorgan. Please proceed with your question.

Jeffrey Zekauskas
Thanks very much. I think on your Analyst Day in 2023, Lyondell thought that the normalized EBITDA of the U.S. Olefins and Polyolefins business and the European Olefins and Polyolefins business was $7 billion.

Since that time, there have been capacity additions, Asia, China has slowed down. Europe's energy prices have come up. I think you want to exit part of your European business? What do you think is the normalized EBITDA of the U.S. and European business now? Is it still $7 billion or is it a different number?

Michael McMurray
Jeff, what I'd say is the number for our North American business is largely unchanged. When we did our Analyst Day, we probably didn't have full visibility as to what is going on in Europe. And so, I think as we sit here today, if you think about what's going on in Europe with higher cost energy and the regulatory environment, probably in Europe, the earnings power is a little bit lower than it had been in the past.

Kimberly Foley

I think there's a lot of moving parts in the macroeconomics that you also have to contemplate, what will happen with China stimulus, and will it be able to consume the new capacity to bring online? What will happen as the EU starts to rationalize? You've seen some of the announcements out there. And then in North America, you have to remember, it's the lowest cost region of the world from a feedstock perspective, and we have no new ethylene capacity coming online for a few years. So, you have to take all that into consideration as well.

Peter Z. Vanacker
Yes, and the other part that I want to add to that is, of course, our big transformation that we are going through, the elements that we have, with the exit of the Refining on one hand side, but especially also the European assessments that is currently ongoing, and then our investments in the Middle East. So, our portfolio of the past is not going to be the same as our portfolio in the future.

We're repositioning in Europe, as you know, leveraging also upon the demand from the OEMs, the brand owners in circular and renewable solutions. We're doing the necessary investments in our Cologne hub. We see that regulation is moving in Europe in the right direction. We're building up low-cost delivered positions in the Middle East. So, that means that our future portfolio of cost advantage operations will move from about 60% to 70% of our capacity.

Operator
Thank you. Our next question comes from the line of Aleksey Yefremov with KeyBanc Capital Markets. Please proceed with your question.

Aleksey Yefremov
Thank you. Good morning. I wanted to ask about the APK acquisition. What's the degree of maturity of this technology? Is it ready for additional investments for capacity expansions perhaps in the near future?

Peter Z. Vanacker
Hey, Aleksey. Thank you for your question. Well we have now full ownership over the company APK. We're very pleased with that acquisition because we have expanded our entire portfolio of renewable and circular solutions leveraging upon different technologies from waste-based renewable hydrocarbons to mechanical recycling to our *MoReTec* technology, which is an advanced chemical catalytic recycling technology.

And now we also have, with APK, a solution-based recycling technology, which allows especially laminated films to be recycled. So, we're in the process of integrating that company. We've acquired them because we see a huge benefit that they have because they are, in our view, the most advanced technology company in terms of solution-based recycling.

So, of course, as we are integrating them, we have a plan behind it in -- which one may compare to our *MoReTec* investment. So, looking at applying the technology, looking at scaling up the technology. So, if you fast forward to 2030, it will be an integral part of our total offering that we have to brand owners and OEMs.

Operator
Thank you. Our next question comes from the line of Josh Spector with UBS. Please proceed with your question.

Joshua Spector
Yes. Hi, good morning. I wanted to ask a longer-term question about the U.S. asset mix over time. So, if you look at your cracker feed that you disclosed in this last quarter, you're about 95% light between NGLs and ethane. I guess as you look at converting the refinery site and you talked about bio-based feedstocks, other recyclate-based feedstocks and what you're building yourself, what do you view as that cracker mix being, call it, 5, 6 years from now?

And assuming that's higher in terms of heavier feed tomorrow versus today, that's going to derate your crackers a little bit on the ethane or ethylene side. Would you invest to maintain that or would you accept that shift as part of that change? Thanks.

Peter Z. Vanacker
Yes, hi Josh. Very good question. Of course, the first thing that I want to outline, and then I hand over to Kim, is with the transformation that we're doing on the Refining side, we are coming from the markets. So, we're coming from the demand that is coming from brand owners, OEMs, through the value chain to us, demand for renewable and circular solutions.

And as we are looking at that demand and how it is growing, mid- to long-term, that's how we are basing our asset strategy and the investments of, for example, a *MoReTec*-2 facility with upgrading capacities through the hydrotreaters as we alluded to in the prepared remarks.

So, it comes from demand how we are ramping up those capacities. And of course, those capacities, those liquid fractions with, due to our *MoReTec* technology, also a gas fraction, will be fed into our crackers, especially the one that we have in Channelview.

So, it's not that we're coming from Channelview and we're exchanging the mix in the cracker, but we're coming from the market and building up our *MoReTec* technology to then see how can we actually feed it into our crackers and capture that margin that we have alluded to in the Capital Markets Day, the incremental margin over time. Kim, do you want to add something?

Kimberly Foley
Yes, just a couple of comments. So, you know, thanks for asking, Josh, because it gives us the opportunity to again reemphasize this is a small investment to get into these product lines, these advanced circular product lines, by just putting a front end to our existing liquid flexible crackers. So, when we think about how we operate in North America, I also want to reiterate, it's always about optimization of, what refer to as our cost of ethylene.

So, could we run 100% ethane at Channelview? Yes, we could but we won't because it's more profitable for us to run some NGLs, just like it will be more profitable for us to look at the feed slate as we better understand the different feedstocks that will come in from circularity. So, I think it's a great question. I really appreciate it. And I would highlight, we had tremendous feedstock flexibility and the opportunity to get into a new market in a low-cost way.

Peter Z. Vanacker
One of the beauties in our strategy, Josh, is also the fact that, like Kim alluded to, it's a relatively small investment when you compare it to having to invest in a complete new cracker with everything around it. So, it's leveraging upon our existing infrastructure.

CO2 emissions are also included in the steel and iron that you're building, so leveraging upon the existing infrastructure that we have and mainly focusing on what do we need to add. So waste sorting is something that we need to add. Advanced chemical recycling is something that we need to add to our proprietary technology, the *MoReTec* technology.

We don't need to add any hydrotreaters in Houston because we have them. We just need to modify them. So, the investment compared to a full scale new cracker is substantially lower, and it allows us to be in a market with low carbon footprint molecules up to net zero. And at the same time, also circular products.

Operator
Thank you. Our next question comes from the line of Frank Mitsch with Fermium Research. Please proceed with your question.

Frank Mitsch
Thank you and good morning. Peter, I was wondering if you could provide an update on the timelines in terms of the European restructuring? And to that end, did I understand you correctly that, following this process, your expectation is that your European operating rates would increase by 10%? If you could talk a little bit about, you know, what's going on, what's your

outlook for your European operating rates and again on the restructuring actions you're taking there? Thank you.

Peter Z. Vanacker
Yes, thank you, Frank. Good question. First I would like to highlight, some of us here around the table are now around 35 years in the chemical industry. I've seen multiple cycles in the chemical industry. This is actually the first time in my career that I have seen that people are not just talking about restructuring and taking capacities out in a certain region, but it's actually happening, and it's happening faster than I believe that anybody, including advisers and consultants, have anticipated.

We are now somewhere between 2 million and 2.5 million tons, depending on what timeline you take, of ethylene capacity that has been announced that is being taken out in Europe. And some consultants have alluded to the fact that there should be somewhere around 2.5 million, 3 million tons, to have a balanced market.

So, it is in that environment that we have at an early stage started with the European assessment and made the corresponding announcements. At this point in time, we are in the markets, we are looking at several opportunities, and we've alluded to that as well before, that can be selling the entire package of five sites in O&P.

It can also be restructuring those sites. It can also be selling one or two or three sites, or selling them separately. So, we are in the market. And we're expecting that we will get, in 2025, quite a lot of clarity. So, of course, as usual, we'll keep you informed about the progress, but it will take a little bit of time. These things don't progress, as you know, from today to tomorrow.

What I was alluding to before, the 60% to 70%, is not capacity utilization. I was saying that if you look at the total portfolio that LyondellBasell has in terms of cost-advantaged assets today, this is around 60% that is cost advantaged assets. After exiting the refinery and modifying it for our recycled renewable products and after having exited the 6 operations that we talked about in Europe, then our portfolio would consist of 70% cost-advantaged operations. So, the remaining 30% is pretty much assets that are serving our renewable and recycled strategy.

Operator
Thank you. Our next question comes from the line of Mike Sison with Wells Fargo. Please proceed with your question.

Michael Sison
Hey, good morning, guys. So, I was thinking about polyethylene this year, integrated margins have done really well, you know, in the $0.30 per ton range. Costs are low. And as you've noted,

it sounds like demand is pretty good. So, what needs to get better in 2025, for O&P-Americas to grow EBITDA, given how well it seems like polyethylene has generally done this year.

Peter Z. Vanacker
Well, Mike, first of all, demand needs to continue to go up in PE. Today, demand growth by PE is not so much related to durable goods. As inflation rates have gone down, as interest rates were expected to continue to go down, then we would hope that, that will have an impact on consumer confidence, buying of apartments, houses, for the construction business would go up.

And that would have a benefit, of course, both to the PE business as well as the PP business. Plus, in addition to that, also Aaron's propylene oxide business.

The other thing I want to allude to, is if you look at year-to-date this year, the delta in EBITDA versus year-to-date last year, well, about 70% of that delta is coming from the Refining business. So, next year, we are exiting the Refining business. That will be discontinued operations, so that will not be in the mix anymore, which gives you an indication that the rest of the businesses, compared to last year, has been relatively stable, despite the fact that we haven't seen durable goods picking up, Europe still being in a crisis, and China not having picked up. The other 30% is pretty much related to the impact that lower gasoline cracks have on the oxyfuels business.

Operator
Thank you. Our next question comes from the line of Kevin McCarthy with Vertical Research Partners. Please proceed with your question.

Kevin McCarthy
Yes, good morning. Thanks very much. Maybe a two-part question on your Refining transition. First, I appreciate the detail on Slide 13. Nice to see the net cash flow contribution. One question would be, as you throttle down on Refining, should we anticipate any earnings impact on your other segments? Just thinking about, you know, products, co-products, utilities that may move across the fence, so to speak.

Michael McMurray
Nothing material.

Kevin McCarthy
Nothing material there? Okay. Good. Okay. And then if I may, are you still looking at a final investment decision on *MoReTec*-2 by March or so, Peter?

Peter Z. Vanacker

No, it doesn't go that fast, Kevin. So, what we would look at, in first quarter next year is that we make one important step, the first step, let's say, in the investment cycle. This is not a final investment decision yet, but it would lead to starting to order long lead items, preparing the ground, do some infrastructure, etcetera, etcetera.

FID, the final step, I would expect that to happen in 2026. One thing already that I want to outline a bit here is that our investment strategy has changed, and our concept is a modular concept that we have, which is something we are applying in the first *MoReTec* investment in Cologne. And we would do the same in the second investment in Houston.

So that means if we make that step on deciding on the first step for Houston, it already is an important commitment. It's intrinsic to the nature of doing modular investments. So, it is a higher commitment already in terms of total CapEx.

Operator
Thank you. Our next question comes from the line of Hassan Ahmed with Alembic Global. Please proceed with your question.

Hassan Ahmed
Morning, Peter. I just wanted to go back to the European review. Several questions asked about that. Since you announced the review, and you were amongst the first to do so, more and more companies are coming out and doing that. I'm trying to understand how you will create value.

Presumably now, there will be more of a glut of assets being set up to be sold out there, so I would imagine pricing would go down because of that. And in Europe, shutdowns can be quite pricey. So how do you think about the calculus?

Peter Z. Vanacker
Hassan, if I look at the announcement that so far have been made in the industry for Europe, then the 2 million tons or 2.5 million tons, depending on the timeline you take, that I have mentioned before, are shutdowns. The assets that we are talking about in our portfolio are not bad assets. I mean, they are good assets.

Berre, for example, is a flexible cracker. It has integrated, polymerization next to it. It has a good location from a logistics point of view. It has preferential electricity costs because of the nuclear industry that you have in France that is being supported, and we expect will continue to be supported, if you look at current discussions on a European level.

So, we do believe that there may be good owners for those assets, not necessarily that we are the right owner for those assets. And you'll see the transformation that I mentioned before that we are investing and have very good experience in Saudi Arabia. So, we continue to progress on that investment strategy in the Middle East.

Michael McMurray
And what I'd say is that, so the process is underway. I hope you all appreciate we can't share an incredible amount of details, but there will be more to share in the new year. But probably not early in the new year.

Operator
Thank you. I am showing that there are no further questions. I'll turn it back to Mr. Vanacker for closing comments.

Peter Z. Vanacker
Yes. Thank you all. Of course, as usual, very thoughtful questions. Let me highlight the following. We continue to make excellent progress on our strategy to make LYB a much more focused company with a leading advantaged asset portfolio and product mix.

2025 will be a very important transformational year for us. We highlighted a couple of the things that we are executing on in 2025.

First, we exit our Refining business and we start preparing for the transition into a renewable and circular hub. Second, we execute on the European asset assessment. Third, we progressed on our first *MoReTec* investment in Germany and we prepare for the second one in Houston. Fourth, we prepare for carbon value creation projects in our existing large assets, not building new assets. And fifth, we continue to further develop our Middle East footprint.

So, all these actions, as I mentioned during the call, are expected to grow our asset portfolio of cost-advantaged operations from the current 60% to 70% of our capacity, and as we mentioned in the last earnings call, we step up our mid-cycle EBITDA margin by doing so. Let me highlight as well that we provided industry-leading 6% total capital return yields in Q3 as well.

So, of course, we look forward to sharing updates over the coming months as we continue to make progress on all the aspects of our long-term strategy. We hope that you all will have a great weekend. Stay well and stay safe. Thank you.

Operator
This concludes today's conference, and you may disconnect your lines at this time. Thank you for your participation.