LyondellBasell
1Q23 Earnings Call
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<u>Presenters</u>
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Michael McMurray, Executive Vice President & Chief Financial Officer
Ken Lane - Executive Vice President, Global Olefins & Polyolefins
Kim Foley - Executive Vice President, Intermediates & Derivatives & Refining
Torkel Rhenman - Executive Vice President, Advanced Polymer Solutions
David Kinney - Head of Investor Relations

<u>Q&A Participants</u>
Steve Byrne - Bank of America
Jeff Zekauskas - JPMorgan
Mike Sison - Wells Fargo
Duffy Fischer - Goldman Sachs
Josh Spector - UBS
David Begleiter - Deutsche Bank
Aleksey Yefremov - KeyBanc Capital Markets
Vincent Andrews - Morgan Stanley
Matthew Skowronski - Credit Suisse
Kevin McCarthy - Vertical Research Partners
Arun Viswanathan - RBC Capital Markets
Matthew Blair - TPH
Hassan Ahmed - Alembic Global

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. Before we begin the discussion, I would like to point out that a slide presentation accompanies today's 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.

A recording of this call will be available by telephone beginning at 1:00 p.m. Eastern Time today until May 28th, by calling (877) 660-6853 in the United States, and (201) 612-7415 outside the United States. The access code for both numbers is 13735436.

Joining today's call will be Peter Vanacker, LyondellBasell's Chief Executive Officer; our CFO, Michael McMurray; Ken Lane, our Executive Vice President of Global Olefins and Polyolefins; Kim Foley, our EVP of Intermediates and Derivatives and Refining; and Torkel Rhenman, our EVP of Advanced Polymer Solutions. During today's call, we will focus on first quarter results, current market dynamics and our near-term outlook.

With that being said, I would now like to turn the call over to Peter.

Peter Vanacker
Thank you, David. Welcome to all of you. We appreciate you joining us today as we discuss our first quarter 2023 results.

We will begin on slide number 3, with our safety performance.

Our workforce continues to deliver excellent safety performance for the start of 2023. LyondellBasell's year-to-date incident rate for employees and contractors is 0.16, which continues to be below the rates seen in prior years. Safety will continue to be a fundamental part of our core values as we move forward with the implementation of our exciting, new strategy.

Let's turn to slide number 4 and review the new strategy that we launched last month at our Capital Markets Day. As you can see, much work was already underway.

Our strategy is built around three pillars. We're convinced that the successful implementation of our new strategy will increase our normalized EBITDA by $3 billion to $10 billion by 2027. This should ultimately result in a more profitable and sustainable growth engine for LyondellBasell. The three pillars for growing and upgrading our core; building a profitable Circular and Low Carbon Solutions business; and finally, stepping up our performance and culture.

In the grow in upgrading to core, we are focused on the areas of our portfolio, where we have leading positions and competitive advantages that are aligned with our long-term goals. We will reinvest to grow and improve upon those advantaged positions by leveraging our leading technologies to generate returns at scale.

In the second pillar, we are committed to building a profitable, circular, and low-carbon solutions business that would enable our leadership in circularity and address the massive customer demand for these products and solutions in a profitable way. We expect this business will generate at least $1 billion of incremental EBITDA by 2030.

The third pillar of our strategy is to step up our performance and culture. Our company has a well-earned reputation for strong, operational excellence and cost leadership. Our goal is to build on these strengths to capture untapped value across the company through modest investments. We have established a value enhancement program that is prioritizing and delivering on these initiatives. Our value enhancement program is on track to deliver more than $750 million of recurring annual EBITDA by the end of 2025.

These three pillars do not stand alone. The pillars of our strategy are interconnected and reinforce each other. For example, we step up our performance and culture to create value. We will reinvest that value in growing and upgrading our core. Returns from a larger and more profitable core will be allocated to build a more sustainable Circular and Low Carbon Solutions business. And the cash generation from all these activities will continue to provide generous shareholder returns. Our strategy serves the needs of our customers, employees, investors, and society.

And we did not wait until our Capital Markets Day in March to start executing this strategy. Slide number 4 highlights our actions three pillars over the past year. As part of growing and upgrading the core, we announced in April 2022 that we would exit the refining business. We are now evaluating options to transform the facility to serve our long-term objectives, particularly around circular and low carbon solutions. Last April, we divested our Australian polypropylene business, and at our Capital Markets Day, we announced a strategic review for our ethylene oxide & derivatives business.

We are improving our focus with investments in businesses that fit with our long-term strategy. An example is the successful start-up of our new PO/TBA facility, the largest propylene oxide plant in the world, over the past month. This project was an enormous undertaking across two Houston area facilities. During the height of construction, we had a workforce of more than 3,000 people. This is the sixth PO/TBA plant built by LyondellBasell since inventing the technology in the 1960s. Our new plant doubles the scale of our prior plants, improves yields, increases product recovery, and incorporates hundreds of design improvements that save energy, reduce emissions, and lower costs. The net result is that we believe propylene oxide from our PO/TBA technology has a lower carbon footprint relative to the most widely used PO technologies. And our cost of production is the lowest in the world.

The new plant was producing on-spec products at rates of 70% or above within one month from start-up. I want to sincerely thank our team for all the hard work and dedication that went into this extremely successful launch of a new production capacity.

The PO/TBA plant is just one example of how we are growing and upgrading our core businesses. Through our value enhancement program, our team is unlocking additional production volumes across our business portfolio through hundreds of initiatives to increase capacity and improve reliability.

In the second half of last year, we established our Circular and Low Carbon Solutions business unit to address the rapidly growing demand for circular and renewable products. Since that time, we have staffed up the organization and announced multiple acquisitions, partnerships, and other arrangements. Just this week, we announced that LyondellBasell will acquire the other half of our QCP mechanical recycling joint venture in Europe. This is another step forward in our work to achieve our sustainability goals. We are securing recycled and renewable feedstocks and building regional hubs to leverage our technologies and provide powerful advantages for our comprehensive business model.

Last December, we increased our greenhouse gas emission reduction goals to establish a leadership position within our industry by aligning with science-based climate guidance. As part of this, we set a goal to procure at least half of our global electricity from renewable sources by 2030. In just 10 months, we've announced agreements that will achieve 70% of our renewable power target, with approximately 1,100 megawatts of renewable generation capacity. The agreements will reduce LyondellBasell's greenhouse gas emissions by approximately 1.1 million tons, and that is nearly 15% of our 2020 scope 2 emissions.

We provide an in-depth look at our progress on sustainability with our newly published 2022 sustainability report. And as you know, that is available on our website. This report highlights how we can create substantial enterprise value through leadership in sustainability, which is core to our strategy of creating solutions for everyday sustainable living.

Our work to step-up performance and culture is the third pillar of our strategy. In October, we streamlined our organizational structure to improve line of sight with clear accountabilities and improved alignment across our commercial and manufacturing functions. And at our Capital Markets Day, Torkel described the work that is underway to transform our Advanced Polymer Solutions segment. In addition, we are leveraging the structure of our value enhancement program to drive commercial excellence and improve our customer focus.

Altogether, the three pillars of LyondellBasell's strategy are working side by side to form a growth engine that captures value and delivers a more profitable and sustainable portfolio of businesses.

Let's now turn to slide number 5 to discuss our financial performance.

During the first quarter, LyondellBasell's business portfolio delivered solid results, reflecting moderately improving market conditions. Earnings were $2.50 per share, more than 90% above our fourth quarter results. EBITDA was $1.5 billion, and we generated nearly $500 million in cash from operating activities. We ended the quarter with $1.8 billion of cash on hand and $5.8 billion of available liquidity. Our company generated 12% return on invested capital over the past 12 months.

The strength of our investment-grade balance sheet and our disciplined approach to capital allocation enable us to confidently move forward with our strategy, while continuing to provide attractive returns to shareholders through all stages of the business cycle.

With that, I will turn the call over to Michael first and then to each of our business leaders, who will describe our financial and segment results in more detail.

Michael McMurray
Thank you, Peter, and good morning, everyone. Please turn to slide 6, and let me begin by describing how we are extending our track record of outstanding cash generation.

In the first quarter, LyondellBasell generated nearly $500 million of cash from operating activities that contributed toward a total of $5.1 billion over the last 12 months. Our cash balance was $1.8 billion at the end of the first quarter. Over the last four quarters, our team efficiently converted 89% of our EBITDA into cash.

During the first quarter, our cash conversion dipped to 35%, driven by increased sales volumes and additional inventory required to serve customers during our upcoming maintenance. Nonetheless, we expect to continue converting approximately 80% of EBITDA to cash over the longer term, as we have done in the past. We remain committed to delivering strong returns to our shareholders. Over the last 12 months, we returned $3.5 billion in the form of dividends and share repurchases.

Let's continue with slide 7, and review the details of our cash generation and allocation during the first quarter.

The LyondellBasell team remains focused on disciplined capital allocation to provide strong returns for our shareholders.

During the past four quarters, we returned 107% of free cash flow to our shareholders. This is well above the annual target of 70% that I shared with you at our Capital Markets Day. During the first quarter, we returned approximately $460 million to shareholders through our quarterly dividends and share repurchases.

First quarter capital expenditures were $352 million, approximately $120 million less than the fourth quarter. With the successful start-up of our world-scale PO/TBA plant, capital expenditures related to the construction of the plant will be replaced with growing cash generation. Our continued investments in maintenance and smaller growth projects remain within our plan of $1.6 billion for 2023.

Now, I'd like to provide an overview of the results for each of our segments on slide 8.

LyondellBasell's business portfolio delivered $1.5 billion of EBITDA during the first quarter. Our results reflect moderate margin and volume improvements across most segments due to improving global demand and lower energy costs. Results in our olefins and polyolefins businesses benefited from higher asset utilization. Demand for fuels remained strong, and our oxyfuels and refining businesses continued to earn margins above historical averages.

Please note that our first quarter segment results reflect the movement of our Catalloy and polybutylene businesses from the APS segment to the O&P Americas and O&P EAI segments, effective as of January 1st. We filed an 8-K on March 7th that provides summary historical financial information for the three prior years.

During the quarter, we recognized $69 million in cost related to the exit from our refining business and a non-cash, goodwill impairment of $252 million, related to our Advanced Polymer Solutions segment. As I mentioned last quarter, we expect to incur approximately $75 million of EBITDA impact, as well as $55 million of depreciation related to the exit from our refining business during each quarter of 2023.

As a follow-up to our 2023 planned maintenance guidance, we decided to pull forward some planned maintenance in our O&P Americas segment to the second quarter. We expect this will result in an additional impact of $90 million, for a total estimated EBITDA headwind of $110 million for the segment during the second quarter of 2023.

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

Ken Lane
Thank you, Michael.

Let's begin the segment discussions on slide 9, with the performance of our Olefins and Polyolefins Americas segment. During the first quarter, O&P Americas EBITDA increased $157 million, to $541 million. North American olefins margins improved on lower feedstock costs, while polyethylene margins increased on higher pricing.

In the second quarter, we expect slightly better seasonal demand, leading to modest improvements in volume and margins. The recent start-up delays for new industry polyethylene capacity should tighten markets and benefit margins over the coming months. Costs for feedstocks and energy are expected to remain relatively low during the summer season.

LyondellBasell will continue to manage operating rates in line with moderately improving demand. We expect to operate our O&P Americas assets at a rate of approximately 85% in the second quarter. This is inclusive of the additional, planned maintenance mentioned by Michael.

In February, we announced a new, long-term feedstock agreement with Nexus Circular. This will supply LyondellBasell's circular low-carbon solutions business unit with 24,000 tons per year of recycled feedstock. Nexus Circulars' new facility will convert mixed plastic waste into recycled, liquid feedstock for our ethylene crackers, ultimately producing new plastics under the circular revived brand. This agreement is just one component of our rapid, multifaceted strategy execution.

We'll now turn to slide 10 to review the performance of our Olefins and Polyolefins Europe, Asia, and International segment.

In the first quarter, we increased operating rates after the restart of our integrated cracker in France. European margins benefited from lower energy costs, but weak demand for durable products persisted. As a result, O&P EAI first quarter EBITDA increased $225 million, to $77 million.

Looking ahead, we expect slightly better seasonal demand in the second quarter. Our operating rates will reflect that improvement, targeting approximately 85% of capacity for the O&P EAI assets. While Europe remains a challenging environment, especially for durable goods, we are focusing on serving customers and optimizing our assets to deliver highest value.

As we mentioned at our recent Capital Markets Day, our teams continue to make good progress developing our regional hub model for Circular and Low Carbon Solutions. Through a fit-for-purpose diverse mix of products and technologies, we will scale this up to become a leader in circular and renewable solutions.

With that, let's turn to slide 11 to discuss the hub model in more detail, the first of which will be located in Cologne, Germany. As Yvonne van der Laan described at our Capital Markets Day, our business model is built upon an integrated approach to plastic waste. This begins upstream, with advanced, waste sorting through our joint venture with Source One Plastics, and partnership with EEW, Energy for Waste, both of which focus on recovering plastic waste that would otherwise be incinerated. From there, we can utilize our mechanical recycling footprint with our QCP and APK investments, which can be sold under the *Circulen* Recover brand, or move further down the value chain into compounding, where we can leverage our APS segment and the newly acquired Mepol Group to create additional value.

Alternatively, these waste sorting operations can take hard to recycle plastic waste to create feedstock for advanced recycling. Newly developed technologies, such as our catalytic *MoReTec* process, allow for waste to be converted into pyrolysis oil. In addition to our *MoReTec* technology, which we hope to FID later this year, we are utilizing long-term feedstock agreements with suppliers like Nexus Circular. This pyrolysis oil from advanced recycling is a feedstock for our ethylene crackers. Most importantly, it allows us to produce materials identical to virgin resins under our *Circulen* Revive brand. This generates meaningful value for our customers that use polyethylene and polypropylene in applications such as healthcare, where mechanically recycled plastic waste cannot be used.

Lastly, renewable feedstocks are another sustainable option for our ethylene crackers. Through suppliers such as Neste, we are able to process feedstocks from bio-based sources, such as waste and residual oils and fats to produce *Circulen* Renew polymers with a low-carbon footprint.

Advanced recycling and renewables are excellent feedstock sources for our ethylene crackers. Both are similar to naphtha or heavier liquids, making LyondellBasell well-positioned to capture this value with the feedstock flexibility of our existing assets.

All of this is already underway, and our hub model will allow us to scale globally and reach at least 2 million tons per year of recycled and renewable based products by 2030. Since 2019, we have sold nearly 200,000 tons of products.

We are convinced that LyondellBasell is uniquely positioned to be the supplier of choice for our customers and brand owners who want to partner with us to lower their greenhouse gas footprint and make their products more circular. We see tremendous value across the entire value chain, and we will continue building on our momentum.

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

Kim Foley
Thank you, Ken.

Please turn to slide 12, as we look at the Intermediates and Derivatives segment. EBITDA for the segment increased by $135 million in the first quarter, to $426 million. Propylene oxide volumes increased with higher operating rates, after planned downtime last quarter, while margins decreased on continued weak demand for durable goods. Oxyfuel margins remained strong, supported by low inventories and steady demand for gasoline. Overall, we operated our assets at approximately 85% for the quarter.

As highlighted at our Capital Markets Day in March, we have successfully started up our new PO/TBA plant, which is the largest propylene oxide plant in the world. This start-up was many years in the making, and I am incredibly proud of what our team has accomplished.

In line with the guidance from last quarter, a heavy planned maintenance schedule across our propylene oxide assets in 2023 will largely offset the benefits from this new volume during the first year of operations. In 2023, we'll be focused on driving safety, quality and reliability as we fine-tune the operation of this new PO/TBA plant and ramp up cash generation in 2024.

For the second quarter, we expect to run our global I&D assets at approximately 80% of capacity, in line with demand. Our new PO/TBA capacity is included in the calculation of our I&D segment operating rates beginning with the second quarter.

Now let's turn to slide 13 and discuss the results of the Refining segment.

First quarter EBITDA of $315 million was fairly comparable with the prior quarter, which benefited from a $40 million in tailwinds from a LIFO inventory valuation.

In the first quarter, the Maya 2-1-1 spread remained stable at about $49 per barrel. Industry inventories for fuels remain low, following winter weather and significant maintenance, coupled with stable demand. We operated the refinery at approximately 85% of capacity, with an average crude rate of 226,000 barrels per day.

In the near term, we expect the Maya 2-1-1 spreads to moderate, due to declining diesel spreads, while remaining well above historical averages. We plan to operate the refinery at approximately 95% of capacity in the second quarter.

We remain committed to safe operation of these assets, with a focus on high reliability to capitalize on current market conditions. As Peter mentioned earlier, we have started the evaluation of several projects to transform the site to fit with our Circular and Low Carbon Solution strategy.

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

Torkel Rhenman
Thank you, Kim.

Now let's review the first quarter results on slide 14.

First quarter EBITDA increased $52 million, to $26 million. Margins for the polypropylene compounding business improved, as product sales prices captured a higher share of rising raw material prices. All of our business areas saw moderately higher demand.

We expect demand will moderately improve across most APS businesses during the second quarter.

After spending time in this role, I've met with many customers who have told us how much they value our products and innovations. We're working every day to improve our service levels and meet our customers' needs to transform this business. As we mentioned last quarter, we have reshaped APS by moving the Catalloy and polybutene businesses into the O&P Americas and O&P EAI segments, which will allow us to focus on what is core to APS, serving customers with tailored solutions.

To further support the growing and shaping of APS' core, we announced in March that we have entered into a definitive agreement to acquire Mepol Group. Mepol's expertise in sustainable compounding fits perfectly into our overall strategy to be a leading provider of sustainable solutions.

We are confident that our APS platform has significant potential. While our team will have some autonomy to install a more customer-centric business model, we will also be highly accountable for delivering value from our initiatives.

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

Peter Vanacker
Thank you, Torkel.

Please turn to slide 15, and I will discuss the result for the Technology segment, on behalf of Jim Seward.

First quarter EBITDA of $73 million reflected stable catalyst volumes and lower licensing revenue.

In the second quarter, we expect that licensing revenue and catalyst volumes will be moderately better. Nonetheless, we estimate that second quarter Technology segment results will be similar to the first quarter.

As Ken discussed, we believe that LyondellBasell's Circular and Low Carbon Solutions business has a strategic advantage with our integrated hub solution. A key enabler to scale our hubs is LyondellBasell's proprietary *MoReTec* advanced catalytic recycling technology. Engineering work for our first commercial scale plant is underway. We hope to provide you with further updates and reach an investment decision for a commercial scale plant during the fourth quarter of this year.

Let me now summarize our first quarter and the outlook for our company, with slide 16.

Our first quarter results illustrate how our team is capturing value through our new strategy, with help from moderately improving market conditions.

LyondellBasell's foundational commitment to safety remains at the core of our culture and will continue to be a critical enabler for our future success. Our O&P businesses benefited from moderately improving demand. Our oxyfuels and refining businesses continue to see margins above historical averages, supported by low inventories and steady demand.

During the first quarter, we returned approximately $460 million in dividends and share repurchases, demonstrating our commitment to shareholder returns.

Looking ahead to the second quarter, we anticipate modest, seasonal demand improvements. North American polyethylene margins should benefit from delays in industry capacity additions. In response, we're aligning our operating rates to match market demand. We remain watchful for market improvements in China, as stronger economic activity could help drive recovery in global markets during the second half of the year.

LyondellBasell is focused on serving rapidly growing demand for our valuable *Circulen* products from our Circular and Low Carbon Solutions business. We're entering multiple arrangements to secure plastic waste feedstocks and build out the regional hubs that will drive our advantage. And we are making progress on our climate targets. In less than one year since signing our first power purchase agreements, we achieved 70% of our target to procure at least half of global electricity from renewable sources by 2030.

At our Capital Markets Day last month, I hope you sensed our excitement around our new forward strategy. Last week, we gathered 150 of our global leaders to provide feedback and align on implementation. The energy and enthusiasm around our initial progress is incredible. From our frontline operators in manufacturing to engineers developing innovative solutions for our customers, the three pillars of our strategy are providing focus and clarity for our progress to capture incremental value and deliver a more profitable and sustainable growth engine at LyondellBasell.

We're now pleased to take your questions.

Operator
Thank you. 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 *, followed by the 1, on your touchtone phone. If you would like to withdraw your question, please press the *, followed by the 2. We do ask you to limit one question.

Our first question comes from the line of Steve Byrne with Bank of America. Please proceed with your question.

Steve Byrne
Yes, thank you. This FID that you're targeting at the end of the year for the *MoReTec* technology, is it fair to assume that you're thinking about building this at the refinery site? Given you have all these hydrotreaters available that could be used to treat the pyrolysis oil, you could also use the hydrotreaters to make your own renewable feedstock, rather than buying it from Neste. And you'll need a lot of hydrogen to do all this. Could this site become a hydrogen hub, as well, and get some DOE funding?

Peter Vanacker
Hi Steve, this is Peter. Thank you for your question. Of course, as usual, very good question. The first *MoReTec*, industrial scale deployments that we are referring to, that we plan to have an FID until the end of this year, will be in the Cologne hub. But of course,

we're also looking at the Houston hub, and I have alluded to that before, that we are looking at the refinery, to also deploy an investment, in terms of *MoReTec*, our own technology.

So -- but the first one, to be very clear, will be in Cologne, and rightfully so. I mean, as you recognized, if we do a *MoReTec* investment in the Houston hub, we can leverage upon the hydrotreaters and hydro crackers that we have there, to upgrade the plastic oil and then feed the plastic oil through the pipeline to our Channelview cracker. So, it's an ideal situation that we have there. So that's the focus that we currently have. It's all around, our *MoReTec* advanced recycling technology.

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

Jeff Zekauskas
Thanks very much. What are the total cash costs for shutting down the refinery and remediating whatever needs to be remediated, if there is something?

Michael McMurray
Hey, Jeff, it's Michael. Let me help you out with that. So I'll refer you back to an 8-K that we issued last year. But we anticipate a number of charges. So there's charges associated with the existing operating lease assets. So this would include like tanks and other infrastructure. There's asset decommissioning cost, so like, things like tank cleaning; and then personnel-related costs, as well; and then some miscellaneous charges.

So our total cost estimate -- and this is still a good estimate today -- we had given a range of about $600 million to $900 million. It's unlikely, and this is happening, that they're not going to be recognized all at once, so we've been incurring some cash and some non-cash costs now, largely non-cash this year. And they'll continue into 2024, as well.

And you're seeing charges, per quarter right now, of about $85 million, similar to what we had seen in 2023, as well. On the fourth quarter, we did raise our estimate on asset decommissioning costs slightly, and you've seen some incremental depreciation related to that. But that's within our $1.4 billion estimate for the full year. And then don't forget, there will be a meaningful, working capital release when we shut down the refinery. It's on the order of about $700 million, is what we're expecting.

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

Mike Sison
Hey, good morning, guys. Nice start to the year. In terms of fundamental polyethylene demand, can -- where do you think we're running at here, in the first quarter, heading into the second quarter, and -- and how do you think it holds up in the second half of the year?

Peter Vanacker
Yeah, Mike, I'm going to give that Ken to answer that question. The first thing that I want to say is our sales teams as well as the operations team, they have done an excellent job in navigating very well, both in polyethylene as well as in polypropylene, through challenging market environments. So -- and the result is, of course, what you see then, on the EBITDA in Q1. Ken?

Ken Lane
Yeah. Thanks, Mike. We're seeing modest improvements from Q4 -- Q4 being very low -- and we saw a lot of destocking, especially in Europe, in the fourth quarter. So I'd say overall demand is going to modestly improve, going into Q2. We typically see some seasonal improvement. We have begun to see some improvement in China. The consumer is sort of waking up there.

So my expectation is that, as we get into the second half of the year, that's probably going to be the biggest opportunity for improvement in the market, is going to be how quickly China comes back. I don't think in Europe and in the US, you're going to see anything different than the normal, kind of Q2, Q3 peak and then a decline in Q4, which is normal for those markets. But we should see Asia performing stronger in the second half.

Peter Vanacker
And I'll follow that in the context, of course, if you just look at Eurozone GDP first quarter, that was practically no growth. Okay, not a deep recession, but on the other hand side, I mean, 0.1% growth. And needless to say, as you hear it all over the place, is that this is especially in durable goods, that the market continues to see a very conservative consumer behavior.

Operator
Thank you. Our next question comes from the line of Duffy Fischer with Goldman Sachs. Please proceed with your question.

Duffy Fischer
Yes, good morning. I was just trying to figure out, in your PO business, your non -- other than the new plant you're starting up, roughly, what are you running the rest of your fleet at? And then, what do we need to see for PO to get healthier? Do we need to see some industry shutdowns, or do we just need to see business come back to a normal level, and the profitability levels per unit can kind of come back to where they were maybe 1 year, 1.5 years ago? But just -- what's your outlook there for the rest of the year, if you would produce PO?

Peter Vanacker
Thank you, Duffy. Very good question. And that allows me, again, to repeat what a huge success that is, to be able to start up that PO/TBA plant -- I mean, the largest that is in the entire industry, on time, safely, and is now ramping up, just like inset to demonstrate, I mean maximum capacity in that plant. So really, I mean, an incredible -- and I must say, even when I compare that to my previous assignments and other companies, I've never seen it going that smooth. So really talking a great job by the entire team. Which gives you, Kim, some time to answer the question?

Kim Foley
As it relates to the business environment, I think it's very similar to what you heard from Ken and Peter, related to durable demand. The biggest outlets for propylene oxide are polyurethanes that go into insulation, they go into furniture, they go into the construction industry, paintings, and coatings. So until we see housing turn, you're going to -- the demand is going to be weak.

And the question is, what's going to happen with interest rates and how will that influence housing demand, not only in the US, but also some of the challenges that they have in Asia, as far as their construction and real estate markets? So as we look forward, we have some optimism, but I think it's heavily weighted on what happens with interest rates. To your other question, as it relates to industry consolidation, yes, we would love to see some consolidation from fourth quartile assets around the world, but those are decisions that each and every manufacturer has to look at and make as they assess their portfolio.

Peter Vanacker
And now Duffy, that a part of the PO consumption is going into bedding, into furniture. But there is also a part that is going about, I would say, 20% is going into automotive. And if you look at the automotive industry, in terms of builds, the latest the IHS numbers were, let's say, April expectation, close to 4% increase.

So it's not all negative. But as long as we don't see that the construction market will start to pick up, then we expect that it will be moderate, in terms of demand growth in PO, but we are ready for that.

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

Josh Spector
Yeah, hi. Thanks. I wanted to follow up on one of the earlier questions, on demand, and specifically around China, in terms of what you're seeing, in terms of on-the-ground demand and inventories for polyethylene and polypropylene. And you made a comment on, I mean, in your prepared remarks, around delays in polyethylene capacity in North America being helpful.

I mean, at least on paper, there's capacity coming out in China at meaningful scale. Is there anything you could comment on there that's going, perhaps, per plan, slower or faster, than you expected? Thanks.

Peter Vanacker
Ken?

Ken Lane
Yeah, thanks for the question, Josh. No, I -- there's nothing that we see really meaningfully different, in terms of the developments around China capacity additions. They seem to be coming on about the way that we had expected. So really nothing new there. But again, what we're starting to see is consumption is improving, converters and downstream customers are being a little bit more careful. They're not wanting to build inventory.

So that's part of what we see in terms of, I'd say, the slow ramp-up. They're being very risk-averse. But the demand is beginning to come back a little bit, as far as consumer goods. To the point that Peter made earlier, durables are less strong, in terms of the recovery, but we still see good demand in food packaging and those sorts of markets.

Peter Vanacker
And can we say, Ken, I mean, if you look at, just at March, exports from the U.S., that went up as well?

Ken Lane
Yeah. So exports from North America have gone up in the in the month of March, pretty significantly, if you look at the ACC data. So that's going to continue, I think, into the second quarter.

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. Peter, can you talk to the strength of the oxyfuel margins and how sustainable they -- it might be, beyond the seasonally stronger period we're about to enter?

Peter Vanacker
Yes. Thank you, David. Good question. We continue to believe, I mean, that the oxyfuel markets, if you look at it compared to the history, will continue to be strong. Maybe softened a little bit. But I will give it to you, Kim, to elaborate a little bit more.

Kim Foley
Thank you, Peter. So I think if you think about the big drivers for the profitability of oxyfuels, it’s your feedstock costs -- so look at your butane costs versus your crude. Look

at your cost of methanol, which right now in the U.S., is favorable, with low natural gas; the relative price of crude, so the higher crude is, the more favorable it is, because it's the difference between the lower gas and the crude; and then the premium.

And I think that's the question many people have is what's going to happen with all this new capacity, as we come into the market with the, what we call the oxyfuel for the ether premium.

And we're pretty confident we have outlets for all of that material. And we think there'll be some seasonal moderation of margins, as we go into the third and fourth quarter, as butane pricing increases, but no concerns or plans that we haven't forecasted within our portfolio.

Peter Vanacker
Yeah, and one needs to look, like Kim I said in the prepared remarks, I mean, the new PO/TBA plant, even if we would write at 90%, 95% of capacity, we have actually, proactively, scheduled three turnarounds at other plants. So at the end, net-net, there is not substantial more volume that comes into the market.

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

Aleksey Yefremov
Thank you. Good morning, everyone. I had a question on your Cologne hub slide. First, there's mechanical recycling that's present in the diagram. And, as you know, there is a very well-developed mechanical recycling industry that already exists. Do you have any special sauce or advantage by owning the mechanical recycling assets and having them on that one site?

Peter Vanacker
Well, we do believe -- and it's a very good question, I mean, Aleksey, and rightfully noted, as well -- that this is, as we said at the Capital Markets Day, this is the whole breadth of different technologies that we are deploying, globally, not just at the Cologne hub. And one of those technologies is actually the mechanical recycling technologies. And you saw from our announcement this morning, that we have agreed to buy out and now have full ownership over the QCP assets, which are assets in Galena in the Netherlands, as well as the Tekova assets in Belgium.

So these assets are, on one hand side, industrial mechanical waste focus, and on the other hand side, post-consumer waste focused. So again, here, we have the breadth of technologies that we then can bring to the market. We do believe that we have differentiated technology, not just on the mechanical of course, as you know, but also on the advanced recycling, and intend to continue to deploy that.

Ken Lane
And just -- one thing I do want to add to that, is when you look at the resins that we develop and the mechanical recycling capability that we have, being able to optimize those things. So, if you think about some of our new resins coming out of the *Hyperzone* asset, they are very good, to be able to increase the recycled content. So there is an advantage by optimizing your portfolio of virgin resins and recycle it content.

Peter Vanacker
Yeah, that's a very important point. And that's why, I mean, this hub approach, the synergies that we have, the optimization that is possible to maximize the value out of our waste.

Operator
Thank you. Our next 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'm wondering if you can give us a bit of a bridge of -- in EAI, from 1Q into 2Q -- and a couple of questions within that. One would just be on the energy cost position of the plant footprint. I know you said it was $90 million better versus 4Q. Does that improve any further into the second quarter?

And then, also, you commented in the release about, in the first quarter, I believe, it was 70% naphtha as a feedstock. What was the reason why you were so rich in naphtha versus LPG? And what would you anticipate for the second quarter?

Ken Lane
I'll take that one, Vincent. Thanks for the question. So just to give you a feel, recall that we had, in the fourth quarter, the -- our French cracker down. So that certainly has an impact on our energy mix and our feedstock mix, as well. I think what was interesting in the first quarter, is that propane was in the feedstock mix, which is atypical when you think about winter months. Normally propane is not in the feedstock mix.

And we have a lot of flexibility in that cracker in France. So as we were ramping that up, we started to optimize the portfolio through the quarter. So you'll see some more impact -- let's say the full quarter impact of having the Berre cracker up and running in the second quarter, but I'd say it's marginal. We do have a good cost position, in terms of energy costs, in France. So I don't expect there to be a big difference in the second quarter versus first quarter, other than what you can see in the improving price of gas in Europe.

Operator
Thank you. Our next question comes from the line of Matthew Skowronski with Credit Suisse. Please proceed with your question.

Matthew Skowronski
Good morning. Thanks for taking my question. Ken, ethane prices have fallen quite a bit. Ban you provide color on your outlook for feedstock costs for the rest of the year? And also, now that we're at the end of the month, where do you expect North American polyethylene prices to settle in April?

Ken Lane
Sure, Matthew. So we are in a really good position, as you can imagine, for North American feedstock advantage. The oil and gas ratio is very strong. Our outlook is that that's going to continue. We've seen good increases in production in North America, in NGLs. And if you look at ethane and propane inventories, they're at high levels and production continues. So I expect that we're going to see, in the midterm, continued strength in the advantage for North America.

And like we said in the prepared statement, the -- some of the delays in the production issues that are happening with the North American capacity that's coming on, should continue to lend support to polyethylene pricing. And we've got price increase announcements out there. And certainly, we're optimistic that we'll be able to secure that.

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. Just to follow up on the prior question. Can you comment on the demand side of polyethylene? Do you think that destocking has run its course at this point? And if so, would you anticipate any restocking in coming months?

And then, with regard to the new supply that's coming domestically, it seems that, as you alluded to, there's either delays or we've also heard that some units are having trouble running on specs sustainably. So welcome any color you have along those lines for the market or individual grades of resin?

Peter Vanacker
Ken?

Ken Lane
Yes. Sure. So listen, I'll just continue. Nothing really more to add. We are seeing tightness in some market segments more than others, which is things like high-density polyethylene, you've probably heard the issues around some of the tightness in the markets there. We expect that's going to continue, but not a lot really to add. These things are a little bit hard to predict.

And exports, like we had mentioned earlier, did creep up in March, and that's always going to be one of the key factors, in terms of new capacity coming on with the feedstock advantage that we have here. A lot of that new capacity is going to go offshore. And we're not faced with any of the supply chain issues like what we were seeing in the, kind of early fourth quarter. Those issues are gone. So the ability to move product offshore is going to help sort of evacuate that volume fairly quickly.

Michael McMurray
Hey, Ken, we think destocking is largely done, but folks are buying cautiously, right?

Ken Lane
Yeah, yeah. I would say destocking, we don't really see that occurring anymore. And people are being cautious in terms of their inventory levels.

Operator
Thank you. Our next question comes from the line of Arun Viswanathan with RBC Capital Markets. Please proceed with your question.

Arun Viswanathan
Great. Thanks for taking my question. Just a question on how you're thinking about the year and maybe next year, as well. We appreciate the '27, $10 billion number. But if you just look into the rest of this year, you were able to do the $1.5 billion for Q1 on EBITDA. Usually in Q3, a little bit better, and you're still talking about weak demand. So I'm assuming there's a little bit of improvement, as we go through the middle of the year.

That should put you on a pace of around $6 billion. Next year, you have, unfortunately, the refinery out, which maybe is a loss of $1 billion. How do you -- is -- are some of those kind of ways of thinking about Lyondell accurate? And how do you kind of plan to plug that $1 billion hole for next year? Thanks.

Peter Vanacker
Hi, Arun, good question. Thank you very much. And of course, in the context of not giving guidance on a yearly basis -- and we alluded already, I mean, to the fact that we see, maybe a little bit of movement in China, but not substantially. So that will be a very important factor to look at, if -- and it's a big if -- during the second half of this year, demand growth would be there in China, on a substantial basis.

And the other point, I mean, we expect, I mean, that energy costs were going to be, let's say, relatively modest. Of course, a big advantage that can leverage upon -- in the United States. Energy costs have gone down in Europe. But of course, we all know that they are still -- energy is still very expensive in Europe.

But we don't see immediately, from today's perspective, that energy costs in Europe would certainly return back, I mean, that like TTF gas price, above €130, €140 per megawatt hour that we have seen at the end of 2022. So China continues to be a big question mark. And then, how will the inflation influence consumer behavior in Europe, as well as in the United States?

Michael McMurray
So to put a bow around that, Peter, we think the second half should be better than the first half. That's broadly in line with what the analyst community is thinking, as well. But as you said, China is the linchpin. And uncertainty, generally, is high right now.

Operator
Thank you. Our next question comes from the line of Matthew Blair with TPH. Please proceed with your question.

Matthew Blair
Hey, good morning. Thanks for taking my question. On natural gas, I think you've given sensitivity, that every dollar per MMBtu is about $175 million of op costs. Did you realize all those benefits in Q1, from both lower US, as well as lower European gas prices? And I guess, should we expect any sort of incremental benefits heading into Q2?

Peter Vanacker
Michael?

Michael McMurray
Sure. Happy to take that question. And we got some feedback from a few folks, that they didn't like our rule of thumb. So I'll give you a bit more data this morning, which, hopefully, is helpful. But as you all know, energy prices last year surged significantly, both in Europe and the US. And so just looking at energy cost for last year versus 2021, up about $1.7 billion.

If you benchmark last year versus 2020, up $3.3 billion. So we faced into some significant energy cost increases over the last couple of years. But obviously, have seen relief that started in the fourth quarter and has followed through, into the first quarter of this year, and now is continuing into the second quarter.

So -- what I would say is that if you looked at energy cost, overall, for the fourth quarter for the enterprise, about $1 billion, overall, in the first quarter, down roughly $200 billion. Our expectation, as we move into Q2, that it's largely flattish, maybe a little bit of -- kind of full quarter effect. And then just from a modeling perspective, I'll give you a couple of more data points to be helpful, both around North American average natural gas prices that we incurred, and then Europe average natural gas prices.

So for North America, average price in the fourth quarter was $5, roughly $5.30 per MMBtu. In the first quarter, the average was $3.10, roughly $3.10. And then for Europe, fourth quarter was $26.70, and in the first quarter, it was $16.60. So hopefully, those data points will help you all as you kind of think about the balance of the year, from a modeling perspective.

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

Hassan Ahmed
Good morning, Peter. I wanted to revisit a series of questions that you guys obviously got on polyethylene supply additions. I mean, if I were to sort of dig deeper into the different grades of polyethylene, there seem to be fairly major divergences in those capacity adds. Meaning, if I take a look at LDPE, the capacity adds are fairly tepid versus HD and LL. So how do you see that sort of playing out in the near to medium term?

Peter Vanacker
Ken?

Ken Lane
Well, thank you for the question, Hassan. I mean, like I said before, we've seen this capacity coming for several years. There's not anything really new here. You're exactly right -- linear low and high-density capacity has really been differentially higher, coming online, than low density. But it doesn't change our outlook. We know -- if you go back to the fourth quarter, we really did hit sort of the bottom of the cycle at that point.

And now as growth begins to come back in the market, that's going to absorb that capacity. We will, sometime in the next several years, get back to a more normalized level of earnings. So not really anything new to add to that. These are things that happen, and we just -- we have to work through that in the marketplace.

Operator
Thank you. Ladies and gentlemen, that concludes our time allowed for questions. I'll turn the floor back to Mr. Vanacker for any final comments.

Peter Vanacker
Thank you very much, everybody. As usual, excellent questions, very thoughtful questions. We, of course, look forward to sharing our progress in delivering on LyondellBasell’s strategy and unlocking additional value over the coming months. I wish you all a great weekend, and as usual, stay safe. Thank you.

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