

Dow

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Vincent Andrews: Good morning, and welcome to our next fireside chat. We have Dow with us this morning. We're pleased to have CEO, Jim Fitterling here. Jim is going to make some opening comments, and then we're going to go into the fireside chat and ultimately Q&A with all of you. Two things I just want to do before that is one read these important disclosures and ask you to see the Morgan Stanley research disclosure website at morganstanley.com/researchdisclosures. If you have any questions, please reach out to your Morgan Stanley representative. And then secondly, Jim is going to speak to some slides. These slides are available on the Dow Investor Relations website. So please feel free to pull those up right now. And it's my pleasure to welcome Jim Fitterling.

Jim Fitterling: Thank you, Vince, and good to see everyone here today. Before we get into the specifics of our presentation that Vince referenced, I wanted to highlight a press release that we issued earlier today. It contains some timely information on our expectations for the third quarter, which reflects the impact from an unplanned event at one of our cracker facilities along the U.S. Gulf Coast and some softer demand in Europe and Asia. This is available on Dow's website.

Let me walk you through just some general color on our end-markets, our expectations and actions that we're taking in the near-term. And then longer-term, the competitive actions that we think will drive Dow's success as the market conditions improve. In the near-term, we're seeing muted demand across most of our market verticals. We continue to see resiliency in packaging, particularly in North America for both domestic demand and exports, which led to price increases in July.

Infrastructure demand, which for us includes residential construction remains soft across all regions, primarily due to historically high interest rates. Demand for consumer electronics and home and personal care applications is steady. However, tighter discretionary spending has led to consumers delaying nonessential spend in durables. The beginning of a rate cutting cycle in the U.S. is expected to further improve underlying

demand in our polyurethane and our coatings businesses, particularly across the consumer and infrastructure market verticals.

And in mobility, we're beginning to see softer demand materialize across all regions, following solid growth in the first half of the year, which was driven by pent-up demand. On Slide 3 of that deck, despite continued challenging industry dynamics, Dow benefits from a strategic and purpose-built asset footprint. We prioritize our growth investments in high-value product chains in regions, which have advantaged energy and feedstock positions. This is particularly true in the cost advantage of Americas, where approximately 65% of our global production capacity is located today and by 2030, we expect that to be 70%.

Additionally, we continue to evaluate opportunities to optimize our global footprint, aligned to our best-owner mindset. As we've shown recently with our coatings and our polyols asset closures in Europe, we're willing to take the necessary action to rationalize select higher-cost assets. The pace and the quality of policies in various regions will have an impact on the overall affordability and attractiveness of our investments.

So for example, in Europe, increasing demand for consumers for low carbon and circular products creates a compelling and attractive opportunity for many of our downstream products and offerings. We continue to engage directly with governments in Europe to address key profitability issues. However, there is a persistent lack of clear and consistent regulatory policies across the region, coupled with some uncompetitive and uncertain energy and other related infrastructure costs, which will hamper both our industry and Dow's investments in Europe, if not addressed.

Looking ahead through 2030, supply-demand fundamentals are expected to become more constructive. Limited industry supply additions and potential asset rationalizations, particularly in higher cost regions such as Europe will support higher operating rates for Dow across our key product chains. In Packaging & Specialty Plastics, in addition to the resilient demand that I mentioned earlier, we do not expect any new polyethylene capacity in the cost-advantaged Americas until 2027.

In Industrial Solutions, the majority of our U.S. Gulf Coast capacity is aligned to higher-value, purified EO derivatives where there are no significant capacity additions expected in the industry. And in alignment with current polyurethane market dynamics, we expect to shut down our propylene oxide unit in Freeport, Texas by the end of 2025. Lastly, we see upside in our silicones business as industry siloxanes capacity additions are expected to slow due to prolonged negative cash margins impacting nonintegrated players.

With all of this, Dow is well-positioned to create significant top- and bottom-line growth as the cycle dynamics improve, enabling higher shareholder returns. And in closing on Slide 4, we continue to operate with discipline and make sure to leverage our advantaged portfolio to capture areas of demand strength, including that strong packaging demand; and invest for long-term profitable growth.

We're updating our guidance for the third quarter and now expect revenue to be approximately \$10.6 billion and operating EBITDA to be about \$1.3 billion. This is

driven primarily by a significant unplanned event that took one of our U.S. ethylene crackers offline in late July. We anticipate that cracker will be back in operation at reduced rates by the end of the quarter. In addition, while we anticipate improved North American pricing and lower feedstock costs in Packaging & Specialty Plastics, we're experiencing higher-than-expected input costs and margin compression in Europe, as well as slow industry-wide macro conditions in Europe and Asia.

In the fourth quarter, we expect typical seasonality and demand. However, we expect a positive impact from lower turnaround costs, higher operating rates as we ramp back up our Texas cracker and fewer weather-related events in the U.S. Gulf Coast. Our solid financial foundation allows us to advance our long-term strategy, which is poised to deliver more than \$3 billion in additional annual returns by 2030.

Our Path2Zero project in Fort Saskatchewan, Alberta reached another milestone last month when we signed a long-term agreement with Linde for the supply of clean hydrogen. We expect the first phase of this project, representing the world's first net zero Scope 1 and 2 emissions ethylene and derivatives complex to start up in the second half of 2027. So wrapping up, we remain well-positioned to execute on our long-term growth levers while maintaining operating and financial discipline which will drive significant earnings upside and further increase shareholder value as the market improves. And with that, I'm happy to join Vince and take your questions.

Vincent Andrews:

Thanks, Jim. Why don't you sit down? So a fair amount to unpack there just in terms of the third quarter update. Maybe you could give us just some help so that we can bridge from 3Q to 4Q in terms of the impact of the cracker downtime, which obviously is unplanned, is something that won't recur theoretically. How much of is that in the quarter versus you also referenced some higher costs in Europe as well as maybe some weaker demand. So if you could give us some rough sizing on that would be helpful.

Jim Fitterling:

Sure. We were on track with the guidance that we put out at the end of second quarter. And then we had the unplanned event in July on our Texas-8 cracker. That's going to be in the range of \$125 million, maybe \$150 million, a combination of lost production and then costs. The issue there was some fouling in the quench tower. We had reduced -- we had run through Hurricane Beryl and reduced rates.

And then on the startup to ramp the rates back up, we experienced some fouling problems. So we had to take it down and clean it. The good news is no big mechanical problems, just cleaning out the back end. So it's line of sight to be started up before the end of the month.

And then, I'd say, in Europe, the margin compression is just a kind of unusual thing. We usually have a good propane naphtha advantage in Europe. It's been running in the range of \$150 to \$175 a ton. It squeezed down to somewhere in the range of \$50 a ton during the quarter. It happens from time-to-time that the markets there get disconnected, but typically, they correct themselves. It just took a lot longer to correct. And so it's going to have about a \$60 million to \$70 million impact in the quarter.

- Vincent Andrews: As we think about fourth quarter though in Europe, we've obviously seen the Brent crude oil price come down. It doesn't necessarily mean naphtha is going to flow 1-for-1 and the coproducts sometimes it takes time to address. But are we thinking favorably on costs in Europe, 4Q versus 3Q?
- Jim Fitterling: Yes, it's resolving already. I think maybe by the end of the quarter, it will be resolved and back to normal. So that's what I would expect. And we'll be ramping Texas-8 up. So we have less turnarounds. We've got Texas-8 back online. Typically, fourth quarter has less weather-related events. We're fortunate today that Hurricane Francine was primarily a rain event.
- So the impact -- and it's early. So I don't have a lot of updates. But the impact seems to be more water-related and less wind. You're not hearing as much about electrical outages and things. And the plants were able to run through. So that's a good sign. We just have to get through logistics, employees -- make sure the employees are safe and able to come in to work and get through all that. But you've got all those positives and continuing to see good cost positions in North America and good pricing.
- Vincent Andrews: Okay. And maybe just to circle back on the demand comments for the third quarter. What I recall you saying was that you're on track with your guidance before you had the outage. On the demand side of things, was there any weakness that started to take place in the second half of the quarter? Is that in Europe?
- Jim Fitterling: Yes. The only thing that is remarkably different is, I'd say, automotive has slowed a bit. Automotive was constructive for the first half of the year, even through July. In August, you start to see things slow. It's obviously a tough month to use to project forward because it's not -- Europe is on vacation. But we have seen in China, we've seen automotive production step down. And we've seen flat auto, what I would say, new auto registrations in Europe and a little bit slower sales in North America.
- And you're starting to see more car inventory on the lots here. You've got the combination of a really early surge of China moving a lot of EVs into Europe, Canada, America. Now you've got tariffs coming on. So you've also got a change in mix happening. And when that happens, you have to convert those plants over, so that means less production. Our demand really comes from the 2 OEMs as they're producing and taking just-in-time inventory to the plant. So when the plants have a change over when they're controlling inventories, we see that slow down.
- Vincent Andrews: Okay. So it sounds like for 4Q, we're going to add back the plant outage. Maybe it takes a little while to ramp back up because it's not going to start on October 1 at full flight. So maybe--
- Jim Fitterling: Yes. I think we just want to -- because we cleaned out a lot of fouling in the heat exchangers and the quench tower, we want to ramp that back up and make sure everything is working right.
- Vincent Andrews: Then we'll just have traditional seasonality in 4Q, maybe a lot of weakness carryover.

Jim Fitterling: Yes. We typically -- seasonality, we typically see in 4Q is like our coatings business. That's typically when we take maintenance time there, get ready for the next year season. But that typically slows down. Second quarter was strong for coatings and they continue to do well.

Vincent Andrews: And then as we sort of think into -- we're obviously coming off the bottom of the cycle, that was sort of the good news of '24. Maybe it didn't happen as fast and to the extent that we've all wanted it to, but we are moving in the right direction. Hopefully, now we're going to start to get some relief from interest rates, maybe some lower energy costs will help the consumer as well.

So as we think about shifting into '25, what's the extent of rate cuts do you think are needed in order to really kind of stimulate demand and get your customer conversations moving in a more confident direction so that we'll start to see some better volume flow?

Jim Fitterling: Anything that improves consumer confidence is going to help because the consumer has been feeling the rate of inflation for a long period of time here. So they're making decisions. And I think they are real decisions, but there are things that they're postponing that with a little confidence that they might swing back in.

On housing, I think we feel like mortgage rates have to get to something with a 5 handle. If you look today at housing in the U.S., most, 2/3 of the mortgages are at 4% or below. We've got a lot of mortgages that happened in the past couple of years, some as high as 7.8%. So if you get to a 5 handle, you're going to have some refinance opportunities. You might see some people step into the market. Rents have not come down. So I think there is some pent-up demand out there as soon as the rates come down. Some people are going to want to move in.

There's a supply shortage on housing out there. If you look at the homebuilders, most of it's being built right now is in the \$0.5 million and above. That really doesn't help an entry-level home buyers. There's a lot of people who want to get into homeownership that can't afford that. And so we've got to be able to get rates down and also get some activity going below that \$0.5 million level to get them into the market. So I think that's kind of what we're looking for on interest rates.

I would say the interest rates so far -- G&E was just up here before me. But on the infrastructure side, they haven't slowed down a lot of things on infrastructure. I'm talking about data center, electrical distribution, places where supply is short. That continues to go along. There's funding and there's money out there for that. But the rate limiting step there is tending to be permitting in engineering, and that's the time-consuming part of it.

If you look at our portfolio, the ethylene chain, which is our plastics and specialty packaging business, and our Industrial Solutions business, EO derivatives, are starting to show signs of tightening, and that will continue as we move into next year. So there's very little new capacity coming on and there's very little between now and 2030.

In order to have anything up by now and 2030, you'd have to be FID announcing contracts, doing construction like we're doing up in Canada. So I think we're poised for

an industry peak that happens in that '27 to '30 time frame. And we're trying to get up before that. And then if you look at polyurethanes, it's really housing and construction driven primarily because -- and mobility secondarily. But housing and construction, insulation, construction materials and then also the durable goods, the appliances and everything else that goes into a new house. They get it kind of 2 ways on demand. So when housing moves up, it tends to have a bigger step change up for them.

Coatings has done well. But when people are buying new homes or selling homes, that's when coatings is at its best. In new construction, obviously, people paint do-it-yourself, people have been doing projects at home. But when a home sells, typically, the person selling the home paints to put it on the market and the person buying the home paints to put it back in -- to design it the way they want it. And so that's a big uplift in the coatings market that we haven't seen yet. So I think that will come back.

And silicones continues to have strong downstream drivers. I talked about siloxanes margins and the nonintegrated players. We run a model that integrates siloxanes and the downstream silicone finished products. So we'd think about things that would go into structural glass glazing for skyscrapers, they would go into things like sealing automotive batteries for EVs or batteries for electrical distribution.

You think about it for in telecommunications products, wire and cable installations, growing interest in maybe immersive cooling for data centers, things like home and personal care products, housewares, all of that business downstream is good. Siloxanes margins have been compressed. But with those negative cash margins, primarily driven by China, I think that's slowing. And so I think we're going to start to catch up on the downstream demand side and start to tighten that up.

Vincent Andrews:

Okay. Maybe to talk a little bit more about demand. It doesn't -- in our view seem to be -- oftentimes, the debate over the last 10 years have been about the supply. It seems like we kind of have a really good line of sight on the supply that's coming now.

And demand is kind of in the disappointment over the last 12 to 18 months coming out of the pandemic, particularly China, but also Europe, right? Europe has been quite weak, maybe partially as a function of China. So what is your overall outlook in terms of what's going to happen in China from a demand perspective, whether it's from government stimulus or just broader recovery?

Jim Fitterling:

I think on the government stimulus side, I think there will have to be some government stimulus. I think there's a little bit of a wait and see right now in China. Obviously, they want to see how our election turns out, and they want to see what policies they're going to be up against. And then we'll probably have a Canadian election after our election somewhere in there. And so those are 2 big areas of discussion right now, trade between Canada and the U.S. and China. And so I think once we know where we end up on the election, China will have a chance to play its cards on what it wants to do with trade. We get better line of sight to 2025 and how things are going to shake out there.

They've been producing. And obviously, they do have some cost positions in manufactured products. They've been producing and exporting certain materials. But

domestically, their demand has slowed down. So the Chinese homeowner, the Chinese consumer is under the similar kinds of pressures that we see here. They've not been buying appliances and they've not been buying homes and home prices have been declining. I think 13 consecutive months of home price declines.

So we're under those pressures. And the government will have to do something to make that move. We're in a shift from a foreign direct investment driven economy, which was a lot of construction to more of a consumer-driven economy or an export-driven economy. And so it's not been an easy time to make that shift for them. In our businesses, in plastics, for example, China is still a net importer. Our domestic packaging sales are up in the 5% to 6% range this year in North America, which is good and our exports are up 16% year-over-year. So about 45% of the production in North America is going export out overseas, not all China. It's going China, India, Asia, Latin America, but to support the balances that are needed there. And I think that trend is going to continue.

Industrial Solutions, we had glycol-2 plant out earlier, but it's back online. That product will be sold out through the end of the year. And then I expect a pretty good run rate next year. That's going into pharma applications, energy applications. So on top of gas scrubbing for gas treatment for sour gas so that we can take LNG and ship it out, it's also used for CO2 scrubbing. So if you have a combined cycle gas turbine and you want to get the CO2 down, one of the ways you do that is a amine scrubbing. And so those are amine products we use there, used in agricultural products. So those downstream demands are all good. And that purified EO demand looks good as we move forward. So ethylene chain, I think, is going to continue to be tight.

Silicones is going to tighten up. And then when the interest rate kicks in, that's when we're going to see the propylene side of things. Propylene typically is what moves automotive, it moves housing, it's what moves durable goods.

Vincent Andrews:

Yes. Shifting gears to Europe. I mean, I think the last few years, we've sort of had a perfect storm of issues there with the higher energy costs coming out of the Russian Ukraine war than higher interest rates, weakening consumer, more imports from China. Maybe we're going to start to get relief on the interest rates. Crude oil now down around \$70. There's a lot of LNG that's going to come out of the United States into Europe over the next 2 years. So are you feeling any better about the potential demand environment there?

And then also, you referenced, I think, in your prepared remarks, sort of having continuous thoughtfulness about the asset footprint there and what's happening from a regulatory perspective. So as you think about Europe, not just for '25, but over the next 2 or 3 years, how is Dow thinking about it strategically and the opportunity set for hopefully some demand and profitability improvement?

Jim Fitterling:

Yes, we have to look at demand first. And so our customers are largely big industrial companies and industrial demand is still 25% off of where it was pre-COVID. And of course, pre-COVID was also pre- Russia-Ukraine, and that was a big impact. It's the energy cost and the other regulatory policies that are keeping that demand on the sideline. And some industries just can't compete and some players that are in Europe are looking

elsewhere. They might be looking here, they might be looking in China for additional capacities -- might be looking to the Middle East for additional capacity.

There's a Wood Mackenzie report out there on the ethylene side of things of all the capacity that's at risk, which is a significant amount, about half of it's in Europe, older assets greater than 40 years old, smaller scale and probably at some point in their future going to require significant maintenance. And if there are negative margins, right now, you're seeing some announcements to shut down. If they're not negative margins, I think you're going to see some continued look at rationalization or consolidation in Europe.

And that's because we just don't have the promise of a lot of demand coming back. So rightsizing the European footprint is necessary. Our cost positions on energy in places like the Netherlands and Spain are relatively good. Germany has improved, but Germany has probably got the toughest energy challenge. France is relatively better because of the nuclear position that they have. We don't have a lot of high energy intensive production in France. Most of our energy-intensive production is in Germany, Terneuzen in the Netherlands and down in Tarragona, Spain.

So I feel good with Tarragona and Terneuzen because we've got the propane advantage there, and we've got good margins. We have to watch Germany, both on ethylene and the polyurethane side of things and see what the demand is. And we have to be open to looking at that portfolio and looking at other creative ways to do something in a value-creating way for shareholders so that we can move forward into, what I would call, just a new Europe or a different Europe.

There are probably still going to be high-value places to play in Europe. We see a lot of uptake on recycled plastics, for example, and a lot of policies to support that, renewable products. And you're seeing a lot of the interest in EVs. And so all the automakers are trying to figure out how they're going to play that space. And so we'll watch that and what the policies do to support that.

Vincent Andrews:

Okay. We just have a few minutes left. So I want to make sure that if there are questions from the audience, we got an opportunity to address them. So if anybody has anything, please raise your hand. Okay. Maybe my last question for you, Jim, would be -- I think we kind of touched on the \$3 billion opportunity to get back to mid-cycle and all things that need to happen. So what are the other -- there's another \$3 billion opportunity that Dow has through its own projects, whether it's Path2Zero or what have you. So maybe just want to walk us through those and give us an update there.

Jim Fitterling:

We've been investing -- our invest for growth businesses are in Packaging & Specialty Plastics chain, our Industrial Solutions chain and in our silicones, our downstream silicones chain. We have the integrated feedstock position, but in the downstream, higher value products. So we continue to invest in all 3 of those. We've had investments. Some come on this year. We have some more finishing up in the first half of next year. Those have the potential -- they right now represent probably \$800 million of EBITDA improvement. They have the potential to be \$2 billion of EBITDA improvement as the cycle improves.

And then Path2Zero, adds \$1 billion to that. Phase 1 comes on in 2027 and then Phase 2 comes on in 2030. And that project, we always compare to our Texas-9 cracker. So even with the hydrogen additional unit operations that we move in the contract with Linde to make the clean hydrogen, that project is going to have the same kind of return as our U.S. Gulf Coast asset, which was greater than 15% return on invested capital since we started up in 2017.

So my feeling is our timing is good on the cycle. That return is without any premium for the low CO2 product. We're seeing a lot of interest in the market from people for that low CO2 to be able to make -- to have 2 million tons of provable, verifiable CO2 reductions. People are willing to pay for that so that they can make the claims on their products. And in some cases, our products represent a big part of their CO2 footprint. So it has a high value to them. And so we're looking at the ability to market that to the people that value that the most.

So I feel good about where we're going there. And then I think we're starting to see the development in the United States, in the Gulf Coast, which was afforded by IRA to be able to build out that same kind of infrastructure that's there. Canada has a price on carbon, which is helpful. That helps us be able to recover some of that operating cost. And they had R&D and investment tax credits to help us recover some of the additional capital. So that really helped derisk the project for us going in there.

In the United States, our price on carbon de facto is the 45Q provision in IRA of \$85 a ton. But that's only available if you can get the CO2 to a partner who can do enhanced oil recovery. So we've got to get policies like Class 6 wells and primacy on those, which you just saw happen in Louisiana and we hope will happen in Texas. Then the carbon solutions companies like Exxon, Chevron and others, to be able to sequester carbon. That's going to allow them then to build the infrastructure, which will allow other commercial players to come in and see a wave of investment in the U.S. like that.

And I think when you see that happen, you'll start to see another wave tick up. We'll have an energy cost advantage which I think because of low-cost natural gas, we're going to have for a long time. On top of that, we'll be able to have a hydrogen carbon capture advantage that will add to that. And so I think you're going to see a chance for the industry to not only lead to it, but also lower its cost again in the U.S. Gulf Coast.

Vincent Andrews: All right. Excellent. We'll leave it there. Thank you very much, Jim.

Jim Fitterling: Thanks, Vincent.