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Presentation:

Operator

Good day, everyone. Welcome to Dow's Third Quarter 2021 Earnings Call. (Operator Instructions) Also, today's call is being recorded.

At this time, I would like to turn the call over to Mr. Pankaj Gupta. Please go ahead, sir.

Pankaj Gupta Dow Inc. - Investor Relations Vice President

Good morning. Thank you for joining Dow's third quarter earnings call. This call is available via webcast, and we have prepared slides to supplement our comments today. They are posted on the Investor Relations section of Dow's website and through the link to our webcast. I'm Pankaj Gupta, Dow Investor Relations Vice President. And joining me on the call today are Jim Fitterling, Dow's Chairman and Chief Executive Officer; and Howard Ungerleider, President and Chief Financial Officer.

Please read the forward-looking statement disclaimer contained in the earnings news release and slides. During our call, we will make forward-looking statements regarding our expectations or predictions about the future. Because these statements are based on current assumptions and factors that involve risks and uncertainties, our actual performance and results may differ materially from our forward-looking statements. Dow's Forms 10-Q and 10-K include detailed discussions of principal risks and uncertainties which may cause such differences.

Unless otherwise specified, all financials, where applicable, exclude significant items. We will also refer to non-GAAP measures. A reconciliation of the most directly comparable GAAP financial measure and other associated disclosures is contained in the Dow earnings release, in the slides that supplement our comments today and on the Dow website.

On Slide 2, you will see our agenda for the call. Jim will begin by reviewing our third quarter highlights and operating segment performance. Howard will share our modeling guidance and outlook, and then Jim will recap our strategy for disciplined value growth that we outlined at our Investor Day earlier this month and why Dow continues to be a compelling investment opportunity. Following that, we will take your questions.

Now let me turn the call to Jim.
Starting on Slide 3. In the third quarter, Dow achieved top and bottom line growth both year-over-year and sequentially. I'm incredibly proud of the Dow team for delivering these results and doing so safely despite industry supply disruptions from hurricanes on the U.S. Gulf Coast. Our proactive storm preparations enabled us to maintain the safety of our team and community and recover quickly.

We delivered a 53% sales increase year-over-year with double-digit gains in every segment, business and region. We also recorded a 7% increase in sales over the prior quarter. We captured strong price momentum, driven by tight supply-demand balances across our key value chains, and we achieved volume growth of 2% both year-over-year and sequentially, supported by continued strong end-market demand despite supply and logistics constraints.

We increased operating EBIT by more than $2.1 billion year-over-year with improvements in all segments and businesses and $58 million higher sequentially. Key contributors included year-over-year margin expansion of 1,170 basis points, driven by price momentum and demand growth, and increased equity earnings, up $189 million, for margin expansion at our Sadara and Kuwait joint ventures.

Our continued focus on cash generation and our balanced disciplined capital allocation enabled us to deliver cash flow from operations of $2.7 billion, up $958 million year-over-year, driven by margin expansion from price momentum in key value chains. We returned a total of $918 million to shareholders through our industry-leading dividend of $518 million, plus $400 million in share repurchases. And we also reduced gross debt by more than $1.1 billion in the quarter. Our proactive liability management actions to tender existing notes have resulted in no long-term debt maturities due until 2026, and we've reduced annual interest expense by more than $60 million.

Overall, Dow continues to deliver on its priorities, and we see further strength ahead as we benefit from a favorable macro backdrop and execute our disciplined strategy to decarbonize our footprint and grow earnings, driving significant value for all stakeholders.

Moving to our segment performance on Slide 4. In the Packaging & Specialty Plastics segment, operating EBIT was $2 billion, compared to $647 million in the year ago period. Sequentially, operating EBIT was down $60 million. Price gains in both businesses and in all regions led to margin improvement in the core business and increased equity earnings. On a sequential basis, operating EBIT margins declined by 300 basis points on higher feedstock and energy costs. The Packaging & Specialty Plastics business reported a net sales increase year-over-year, led by local price gains in industrial and consumer packaging and flexible food and beverage packaging applications. Volumes declined year-over-year due to lower polyethylene supply as a result of planned maintenance turnarounds and weather-related outages in the quarter. Compared to the prior quarter, the business delivered price and volume gains on strong demand in industrial and consumer packaging applications, which were partly offset by hurricane-related outages.

Moving to the Industrial Intermediates & Infrastructure segment. Operating EBIT was $713 million, up $609 million year-over-year, primarily due to continued tight supply and demand in both businesses. Sequentially, operating EBIT was up $65 million and operating EBIT margins expanded by 50 basis points on volume and price gains in both businesses.

The Polyurethanes & Construction Chemicals business increased net sales compared to the year ago period, with price gains in all regions on tight supply-demand balances. Volume declines year-over-year primarily reflected the planned transition of a low-margin coproducer contract as well as weather-related outages and third-party supply constraints. Sequentially, the business delivered sales growth due to increased local price and volume from additional supply availability to meet resilient demand. The Industrial Solutions business delivered a net sales improvement compared to the year ago period, with local price gains in all regions. Volume increased year-over-year on strong demand for materials in industrial manufacturing and energy applications. Net sales also increased sequentially, driven by volume growth, primarily in coatings and industrial applications from increased supply and local price gains in all regions.

And finally, the Performance Materials & Coatings segment reported operating EBIT of $284 million, up $209 million versus the same quarter last year as margins increased 750 basis points due to strong price momentum and robust demand recovery for silicones and...
industrial coatings offerings. Sequentially, operating EBIT was up $59 million on price gains, leading to margin expansion of 210 basis points.

The Consumer Solutions business achieved higher net sales year-over-year with price gains in all regions. Volume increased over the prior year on stronger consumer demand for personal care, mobility and electronics offerings. Sequentially, sales were down as price increases in all regions were more than offset by volume declines as a result of planned maintenance and third-party supply and logistics constraints.

The Coatings & Performance Monomers business delivered increased net sales year-over-year as higher raw material costs and tight supply/demand balances led to price gains in all regions. Volumes were down year-over-year as demand recovery for industrial coatings was more than offset by weather-related outages and third-party supply and logistics constraints. Sequentially, the business delivered local price gains in all regions, supported by increased volume due to continued strong demand for acrylic monomers and architectural coatings and increased supply availability.

Now let me turn it over to Howard to review the modeling guidance.

**Howard I. Ungerleider Dow Inc. - President & CFO**

Thank you, Jim, and good morning, everyone. Turning to Slide 5. In the fourth quarter, we see a continuation of robust demand growth across our packaging infrastructure, consumer and mobility end markets. Brand owner inventory levels remain low. And as a result, we anticipate higher seasonal demand continuing into the holiday season this year.

In Packaging & Specialty Plastics, we continue to see resilient demand for packaging applications and for our differentiated functional polymers. Global polyethylene supply remains constrained as the industry completes higher turnaround activity and supply chains recover from weather events on the U.S. Gulf Coast. We exited the third quarter experiencing higher raw material and energy costs, which we anticipate will likely persist through the fourth quarter. We expect these costs to be an approximately $350 million headwind sequentially. Dow will continue to utilize our broad geographic footprint and best-in-class feedstock flexibility to help mitigate these impacts.

We also anticipate a $175 million tailwind from turnarounds in the quarter as we completed our planned maintenance at our cracker in Canada.

In Industrial Intermediates & Infrastructure, continued consumer demand for furniture and bedding, appliances, pharma and home care are expected to keep supply tight in our key value chains. Due to the weather-related outages in the third quarter, some of our planned turnaround activity was moved to the fourth quarter. Sadara will also start a turnaround at its isocyanate facility in the fourth quarter as well. Altogether, we anticipate $100 million in this segment from turnaround impacts. Short-term increased energy costs in the U.S. Gulf Coast and Europe are expected to be an additional $100 million headwind in the quarter. We continue to see sequential recovery in industrial activity, particularly for energy applications. We anticipate this recovery will continue at least through the fourth quarter as industrial production continues to ramp up from very low inventory levels to meet demand.

In Performance Materials & Coatings, demand for electronics, mobility, building and construction continues to outpace supply. Demand for architectural coatings is also expected to remain elevated due to persistently low inventory levels across the value chain. Global production for silicones has been impacted by the recent dual control policy enforcement actions in China, with silicone metal prices almost 3x their previous highs. We intend to pull forward a scheduled turnaround at a siloxane facility in Zhangjiagang in China to coincide with government actions to curtail power usage. Our current estimate for the quarter includes $125 million from increased raw material costs and turnaround impacts. We'll continue to work on mitigating the impacts of rising raw material costs through our integrated position in both businesses.

Despite higher raw material and energy costs in the fourth quarter, Dow will continue to leverage its advantaged global footprint, structural cost and feedstock advantages as well as our broad suite of differentiated products to meet growing demand.
On Slide 6, as we look ahead, we expect robust economic growth to continue. With the Delta variant slowing the reopening of economies around the world, there remains significant pent-up demand globally, particularly across our industrial and consumer end markets. Many industries continue to see elevated order backlogs, coupled with low inventory levels, as supply chain struggled to keep up with robust demand. These supply chain disruptions are expected to persist, which will certainly prolong the ability to restock inventories across most value chains. As a result, we expect tighter-than-forecasted market conditions to continue, a view strengthened by China’s recent dual control policy that has impacted both cold olefins and methanol to olefins-based capacity, which represent more than 30% of China's total polyethylene production.

2022 GDP growth forecasts are well above historical averages in most areas of the world as industries ramp up to match the robust consumer demand with further upside as global chip shortages continue to extend the recovery in manufacturing. Collectively, G7 countries have not yet fully recovered to pre-pandemic GDP. This points to additional upside as economies return to more normalized consumption levels with degree of vaccination increasing, particularly in Asia, where levels remain low relative to the rest of the world.

Moving to Slide 7. At our Investor Day earlier this month, we outlined how our differentiated portfolio and our focus on sustainability-driven innovation will enable more than $3 billion in underlying EBITDA improvement across the cycle. Our restructuring program and digital investments will yield $600 million in increased EBITDA. Both are in progress, and our restructuring program is on track to achieve its $300 million run rate by year-end.

We also have a suite of higher return, lower risk and faster payback capital and operating investments that will enable an additional $2 billion in EBITDA in the near-term. And our investments to decarbonize and grow at our Fort Saskatchewan site in Alberta, Canada are also expected to deliver approximately $1 billion in increased EBITDA. And as we've already shared, we're executing against a favorable macro backdrop that we expect will continue to support constructive market fundamentals for our key value chains.

Turning to Slide 8. You'll see the detailed list of these low-risk growth investments. Our capital investments are expected to generate $1 billion in EBITDA through incremental capacity expansions, debottlenecking and enhanced feedstock flexibility across our operating segments. We're already making good progress. For example, in Packaging & Specialty Plastics, our Fort Saskatchewan expansion to add ethylene capacity of 65,000 metric tons per year to support growing polyethylene demand is now complete and will ramp by the end of the fourth quarter. Our FCDH pilot plant in Louisiana will start up in 2022, featuring 20% to 40% lower CapEx and 5% to 7% lower OpEx, while reducing CO2 emissions by up to 20% compared to other PDH technologies.

In Industrial Intermediates & Infrastructure, our debottlenecking project to add 60,000 metric tons per year of aniline will be fully online by year-end. And earlier this year, we signed an MOU for a new South China hub to advance local supply and formulating capabilities to serve the fast-growing Asia Pacific market.

In Performance Materials & Coatings, we recently completed a capacity expansion at one of our silicone polymer plants. And by year-end, we will complete a new silicone sealant compounding unit to enable sustainable solutions for high-performance building and infrastructure applications. And we are progressing our 50 kt methacrylate investment on the U.S. Gulf Coast to support global end markets such as inks, resins and packaging materials, which is scheduled to come online in the first half of next year. In addition, our operating investments are also expected to generate another $1 billion in EBITDA as we improve our production capabilities and shift our product mix to higher growth and higher value markets. For example, in Industrial Intermediates & Infrastructure, we're increasing capabilities and shifting our mix toward higher-margin polyurethane systems for mobility and consumer applications. Our Industrial Solutions business is increasing capabilities to supply differentiated materials into the textile market.

Our ECOFAST collaboration with Ralph Lauren lowers energy usage by 40% and water usage by 50% in the fabric dying process. And by 2025, the brand aims to incorporate this technology in more than 80% of its solid cotton products.

In Performance Materials & Coatings, we're expanding our ability to formulate differentiated silicones for a number of attractive markets, including silicone adhesives for foldable displays in consumer electronics, thermal conductive silicone solutions for electric vehicles and silicone solutions for 5G where the market is expected to more than double over the next 10 years. And we recently partnered with customers on high-value innovations like paper barrier coating applications that use our award-winning Rhobarr polyolefin dispersion
technology and Callaway's Supersoft golf balls, which feature a new hybrid cover made with Dow's paraloid-impact modifier.

In Packaging & Specialty Plastics, we're enhancing our extensive conversion and testing capabilities to commercialize residents through packaging design, speeding the innovation process and expanding the addressable market for higher margin and more sustainable products. For example, we're already benefiting from the 9-layer blown film extrusion line project completed this year. We're also making investments to improve asset reliability, which will increase output and expand margins. And we're using digital technology for customer trials and process automation to accelerate catalyst development for new resins and processes like FCDH where we can typically be 100x more efficient than conventional experimentation.

Collectively, our slate of near-term investments will generate an increase of approximately $2 billion in underlying EBITDA, and we intend to deliver this growth with a disciplined and balanced approach, maintaining our top quartile performance in cash flow, cost structure, debt reduction and shareholder remuneration.

With that, I'll turn it back to Jim.

James R. Fitterling Dow Inc. - Chairman & CEO

Thank you, Howard. Turning to Slide 9. The strategy we outlined at our Investor Day builds on our long history of industry leadership. Our plan enables us to capture demand from sustainability drivers, achieved 0 Scope 1 and 2 carbon emissions and deliver meaningful underlying earnings and cash flow growth for years to come. Our path to decarbonize our footprint and grow earnings is a phased site-by-site approach that both retrofits and replaces end-of-life assets with low-carbon-emission facilities while also expanding our capacity. This plan will deliver a 30% reduction in our CO2 emissions between 2005 and 2030 through a disciplined approach that manages timing based on affordability, macro and regulatory drivers around the world.

Our Texas 9 cracker proves that we can do this and do it well. Texas-9 is 60% lower-carbon intensity than any asset in our fleet, and that's without any specific design for carbon capture or hydrogen. The project was delivered with 20% better capital efficiency and 12 months faster than any other crackers built in that wave. Overall, the project has a 65% lower conversion cost, is running consistently at more than 110% of nameplate capacity and has delivered greater than 15% return on invested capital since start-up. We will leverage key learnings from Texas-9 as we plan to build the world's first-ever net zero carbon emissions ethylene cracker and derivatives complex in Fort Saskatchewan, Alberta, delivering approximately $1 billion in EBITDA, as Howard outlined earlier. This project will more than triple our ethylene and downstream derivative capacity at the site while decarbonizing emissions for 20% of our global ethylene capacity. We selected this site due to the availability of carbon capture, infrastructure, advantaged feedstocks and supportive government policies and incentives.

On Slide 10, as we capture these attractive growth opportunities, we will maintain our balanced and disciplined financial approach since spin. We are committed to keeping CapEx at or below D&A, well below pre-spin levels, while targeting return on invested capital above 13% across the economic cycle. We will continue to align our capital spend to the macroeconomic environment, our affordability and return targets.

Our investments align to 3 categories: First, we'll maintain our foundation and maximize the return of our existing assets while ensuring safe and reliable operations. Second, we'll execute our pipeline of faster payback, lower-risk incremental growth projects for downstream and sustainability-driven applications growing faster than GDP. And we'll invest approximately $1 billion per year to decarbonize our footprint and grow earnings. These investments enable us to capture increasing demand for low carbon footprint products while derisking the enterprise with lower emissions assets.

In closing, on Slide 11, Dow is well-positioned to deliver significant long-term value for shareholders. We have actions in place to both decarbonize our footprint and grow the enterprise as we achieve an additional $3 billion in underlying EBITDA, maintain industry-leading cash flow generation and drive towards zero Scope 1 and 2 carbon emissions. Our balanced capital allocation approach targets more than 13% return on invested capital, keeps CapEx within D&A and return 65% of net income to shareholders across the economic cycle. All of this is underpinned by our industry-leading portfolio, cost position and strong track record of innovation that enables us to deliver differentiated products and solutions for our customers and a more sustainable world.
With that, I'll turn it back to Pankaj to open the Q&A.

Pankaj Gupta Dow Inc. - Investor Relations Vice President
Thank you, Jim. Now let's move on to your questions. I would like to remind you that our forward-looking statements apply to both our prepared remarks and the following Q&A. Operator, please provide the Q&A instructions.

QUESTIONS AND ANSWERS

Operator
(Operator Instructions) We'll take our first question from Hassan Ahmed with Alembic Global.

Hassan Ijaz Ahmed Alembic Global Advisors - Partner & Head of Research
Jim, as I take a look at your guidance, sequentially, you seem to be guiding to a $500 million downtake in EBITDA. So $3.6 billion comes down to $3.1 billion. But just reading through the guidance, you don't break out the impact of Ida. So is it fair to assume that you guys are guiding to sort of north of $3.1 billion in EBITDA for Q4?

James R. Fitterling Dow Inc. - Chairman & CEO
Thanks, Hassan. That's a great question. The impact -- the total impact of Ida was about $100 million and split third quarter, fourth quarter. So that's how you should look at that. Most of the rest of the guide was just impact on feedstock cost or raw material costs that we expect to see going into the fourth quarter.

Having said that, I think demand is going to continue to be strong. And I expect our operating rates will be stronger than they were in the third quarter because of the impact of Ida. And I don't expect that we're going to have a chance to build much inventory, but our intent is to run hard through the end of the year because our customers need the demand, and we need to get out in front of this a little bit.

Operator
Next, we'll go to Vincent Andrews with Morgan Stanley.

Vincent Stephen Andrews Morgan Stanley, Research Division - MD
Maybe just a little more color within the Packaging & Specialty Plastics sales guidance and, in particular, what you're expecting for volume sequentially. And then, is there any sort of impact on the top-line from feedstocks or hydrocarbons? You can obviously tell I'm trying to back out your polyethylene price assumptions.

James R. Fitterling Dow Inc. - Chairman & CEO
Vince, I expect the volumes will be better. We had St. Charles obviously out in the month of September, and it came back here earlier in October. So I expect fourth quarter will have a strong run. And remember, we had the turnaround in the Fort that was happening in the third quarter as well, and we're out of that. So the Fort will be back. We'll see some additional ethylene out of the Fort because the back half of that expansion started up. And I think you'll see higher volumes for the year. We're looking at volume increases for plastics like 8%, 9% for the industry. I think, for fourth quarter -- we managed 2% in the quarter. In third quarter, I think, for fourth quarter, it will be higher than that. I do expect prices will moderate at some point. I don't know exactly when that's going to be because, right now, inventories are low. But I don't think it's going to fall as precipitously as some of the forecast estimate.

Operator
Next question will come from P.J. Juvekar with Citi.

Prashant N. Juvekar Citigroup Inc., Research Division - Global Head of Chemicals & Agriculture Research and MD
Yes. Jim and Howard, can you talk about siloxane and downstream silicon demand? What's happening in siloxane merchant market? And how is this chain impacted by raw materials? I think, Jim, you said silicone costs came up in China, so you shut down some -- shut down a plant. Can you expand on that? And finally, what happens to the new siloxane capacity that was announced in China with these recent dual control policies?
James R. Fitterling Dow Inc. - Chairman & CEO

Yes. P.J., good question. I'm going to walk through several things. I would say, in the near-term, the impact on silicon metal has been in China due to the restrictions from dual control. And as you know, that was driven by the higher coal prices really pushing up the cost for the electricity producers. And the electricity producers are capped on their electricity prices.

So some of them didn't run, and that forced the industry curtailment. Typically, as you're going into cold weather months, industry takes the hit versus homeowners and consumers. You try to keep your people warm. And so that hit silicon metals. For that reason, things became tight.

We've moved some silicon metals from Brazil over to China to offset that, and we'll run through the fourth quarter, but we decided to pull a turnaround in Zhangjiagang into the fourth quarter. We had originally planned it for first quarter. We decided to do it now. That takes a little pressure off the dual control situation. That turnaround will cost us, I think, on Slide 5, it's in there, $75 million in the fourth quarter. I expect we're going to see about $50 million higher cost, but both downstream G3 silicones demand and siloxane demand are very strong. And siloxane prices have gone up significantly. And so I think, we're going to be in that situation for all of the fourth quarter, and I would expect in the first quarter as well.

Operator

Next question will come from Jeff Zekauskas with JPMorgan.

Jeffrey John Zekauskas JPMorgan Chase & Co, Research Division - Senior Analyst

I have a 2-part question. The first part has to do with your expansion in Alberta in the late decade. That seems to be your sole large ethylene polyethylene expansion. And by my calculation, what that means is that over the next 10 years or so, your capacity will expand 1% to 2% per year. And presumably, the industry grows faster than that. And so is this approach an example of your disciplined capital approach where you really only want to have high-return projects and what you'll do is you'll sacrifice volume growth in service of that higher return?

Second part is for Howard. The net debt to EBITDA, you say, will go to 2 to 2.5x. That makes a difference. Because if your EBITDA is $10 billion, that's a $5 billion difference. So is it 2 or 2.5? And are you going to get there quickly? Or are you going to dawdle? Because if what you're going to do is lever up by another, I don't know, $9 billion or $10 billion to buy back stock or increase dividends, how quickly are you going to get there? Is it 2022 or '25 or somewhere in between?

James R. Fitterling Dow Inc. - Chairman & CEO

Jeff, the first part of the Alberta expansion comes on in [2027] (corrected by company after the call). That brings on most of the new cracker capacity. The cracker will be expandable, and it also brings on the derivatives. And then we retrofit the existing cracker so we can tie the back end into the autothermal reformer, and that will come on in [2029] (corrected by company after the call). So that will be the largest mega project that we do. We do have investments in the near-term on debottlenecking existing assets that will help us between now and [2027] (corrected by company after the call). And we have the ethylene capacity to add some downstream capacity as well. So it will be a little bit more than 1% to 2% growth. But our focus on Alberta is obviously to take advantage of the situation there to decarbonize and have a good carbon capture location and take that whole site to net zero. Howard, do you want to hit the net debt to EBITDA?

Howard I. Ungerleider Dow Inc. - President & CFO

Yes, sure. Jeff, your point about disciplined balance on the capital allocation side, it goes to the debt as well. I mean, when you think about what we did in the third quarter, it was very balanced. It was more than $500 million in dividends. It was doing another $400 million of stock buyback, and then we took out $1.1 billion of debt.

To your point on the 2 to 2.5 ratio, I would say some of our peers have a 1% swing between the low and the high, so we're already giving you a better-than-peer view with saying our range is only half a turn. But if you'd like me to narrow that further, I would say, use the midpoint. So our long-term average is 2 to 2.5. I would say, through the economic cycle, if you want to use 2.25, that's a reasonable proxy.
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for where we want to be, but we have the corridor there to recognize that it's a long-term target. Punctually today, using the rating agency methodology through the end of the third quarter, we're probably around 2.4, 2.5. So we have about 0.25 turn left to go to hit that midpoint of the 2 to 2.5.

Operator

Next question will come from the line of Bob Koort with Goldman Sachs.

Mike Harris Goldman Sachs

This is Mike actually sitting in for Bob. Just wondering, you guys made a couple of comments about inventory still being tight. And I guess, from a polyethylene perspective, could you perhaps maybe quantify what you're seeing in terms of days of inventory and how perhaps that may compare to what you will consider more normal?

James R. Fitterling Dow Inc. - Chairman & CEO

Yes, industry -- Mike, industry inventory and DDI fell. Industry inventory in September fell about 120 million pounds. And so days in inventory had dropped. Demand is obviously strong. And export demand exceeded domestic and export exceeded the production. Obviously, storms had an impact on that as well. We saw inventory declines in high density and linear low and a little bit of inventory build in low density, but it isn't a significant number.

So when you look at the 5-year trends, and I think what we put in the slide deck to show you earlier, is that the order backlog is up about 30% above normal and the inventory-to-sales ratio was down about 10%. I think that's going to stay in that band for the most of the fourth quarter. And as the capacity comes back from the hurricanes, we have still supply and logistics issues, so there are bottlenecks everywhere, especially when it relates to marine pack cargo or export and as it relates to product being shipped by truck. It's a little hand-to-hand combat right now. And if a truck driver doesn't show up, shipment gets delayed. So I think we're going to be in that situation for the rest of the year and into the first quarter.

Howard I. Ungerleider Dow Inc. - President & CFO

Just giving you some down numbers. Our DSI was down 7 days in the third quarter versus a year ago, and our overall cash conversion cycle was better by 1 day sequentially. So we're tightly managing our working capital.

Operator

Next, we'll go to David Begleiter with Deutsche Bank.

David L. Begleiter Deutsche Bank AG, Research Division - MD and Senior Research Analyst

Jim, the consultants have a pretty sharp decline in ethylene chain margins through February. Do you agree with that? Or are they being a little too bearish given the tightness right now in the marketplace?

James R. Fitterling Dow Inc. - Chairman & CEO

David, I think a little bit bearish the way I would categorize it, I think they are underestimating the demand that's going to be there because there still is a significant inventory restock and continued strong demand that we see coming. And I think they're overestimating how much supply is coming in. And if I go back to the China situation, remember that about half of the CTO, MTO capacity is out of the money right now. 60% of all the new capacity coming on in the world is in Northeast Asia, which will still be a net importer for a long time. And it's all naphtha or higher cost base. And so, I think those things are going to soften this. I do expect prices to moderate a bit. But I think we could see a pretty strong 2022 with higher volumes, yet slightly lower prices.

Operating rates were always going to be in the high 80s to low 90s for the full year, so I don't see a change there. And remember that the U.S. structural advantage, the Canadian structural advantage, our position in Argentina and our positions in the Middle East are still going to remain strong.

Operator

Next, we'll go to Frank Mitsch with Fermium Research.
Frank Joseph Mitsch  
Fermium Research, LLC - President

Nice results. You did sequentially pick up your buybacks here to that $400 million level in the third quarter. How should investors think about the pace of buybacks in 4Q and 2022?

James R. Fitterling  
Dow Inc. - Chairman & CEO

Howard, do you want to take that?

Howard I. Ungerleider  
Dow Inc. - President & CFO

Yes. Thanks, Frank. So the guidance we gave for the fourth quarter is 745 million shares outstanding. So if you look at where we ended the third quarter or the average for the third quarter, that’s about a 5 million share reduction, which would equate to another $400 million plus or minus of stock buybacks, so essentially keeping pace with the third quarter.

With that said, look, we continue to be disciplined and balanced in the capital allocation, and we will continue to be opportunistic. We’re staying true to our 65% of our net income going back to shareholders. Long term, 45% of the earnings growth will -- and the net income will go in the form of dividends, and then we’ll use stock buyback to top that up to 65%.

John Ezekiel E. Roberts  
UBS Investment Bank, Research Division - Executive Director and Equity Research Analyst, Chemicals

We see all the container ships out in the harbors and all the containers stacked up on the docks and the warehouses are full with drivers waiting to take product to the final customers. Your earlier comment was about polyethylene producer inventories. Do you worry about contained product downstream? Or it would seem like there’s a lot of inventory in the channel downstream of the converters.

James R. Fitterling  
Dow Inc. - Chairman & CEO

Yes, it’s -- the visibility is hard to track right now. I do think that some of the moves that the government made recently to get the big ports 24/7 operation is going to help the backlog. What happens is typically, when those ports get backlogged, it spills over into other ports. We don’t use Long Beach as much, but when traffic spills over in the other ports, that hits us.

I would say that almost every value chain has some impact from that. And where we see the biggest impact is being able -- it’s kind of blocking material getting out. And so we’re starting to see some congestion and some competing demand. Product coming in.

Sometimes it’s faster to reload an empty container to get it back to China. And so that competes with other materials going out. We don’t see that in every port, but certainly, on the West Coast, we’re seeing that right now. I would say almost every value chain we have, every application we have is short product. And I don’t think there’s enough material tied up in all of that floating inventory or in the warehouses that, that is going to alleviate the demand or fill the demand that’s out there right now. I still think the consumer is strong, and we’ve still got other economies that are coming back from COVID that are going to add to that demand.

Michael Joseph Sison  
Wells Fargo Securities, LLC, Research Division - MD & Senior Equity Analyst

Nice quarter. Just curious, when you think about '22, and you tend to have that nice little market fundamentals for your 3 base segments, just curious -- any -- I know you think demand is strong. Any thoughts on natural gas pricing, feedstock costs? Oil is going up. Just curious how you’re baking in those type of inflation [numbers] in that outlook.

James R. Fitterling  
Dow Inc. - Chairman & CEO

Yes. So we’re starting to see some improvement in production, drilling and completion of wells. We’re going to bring more NGLs as we move out of the winter season. I believe what we’re seeing short-term here is a knock-on effect as coal really ratcheted much higher in China. The first fuel that you go to that could replace coal in the fuel grid is natural gas. And then LNG obviously went right up after coal. And then the next fuel is oil, and oil came right up. And so that took us up to $80 a barrel.
I think we’re going to see things will stabilize a little bit. As we go into winter, inventories are a little light of the 5-year average going into winter. But you’ve seen prices unwind a little bit in the forward market by about $1 a million BTU because weather plays a significant factor. So we’re going to have a warmer fall that’s going to take a little bit of sting out of the natural gas prices.

Even with that, the oil-to-gas ratio, but more importantly, the oil-to-gas spreads are good. And so I think that’s going to continue. And if we get through winter without a really, really cold snap, then I think you’re going to see prices to moderate. Long term or medium term, I would say, 250 to 450 for U.S. production. And long term, about 275 a million BTU for natural gas.

Operator

And your next question will come from Duffy Fischer with Barclays.

Mike Leithead Barclays Capital

This is Mike Leithead on for Duffy. Maybe 2-part question for Howard. I guess one -- just a clarification on Jeff's earlier question. Is that 2 to 2.5 debt target a gross debt-to-EBITDA metric? Net debt? Because if I heard your response correctly, it sounds like you still want to pay down slightly more debt from here.

And second, if we stay in this, call it, $6 billion or so annualized operating cash flow range from the past, say, 24 months or so, we roughly know what CapEx will be next year. And it seems like there should still be a decent amount of excess cash. I know you stressed a balanced approach. But just how should we think about the priority of that excess cash? I guess that’s the gold bar on your chart, but are buybacks the flywheel here?

Howard I. Ungerleider Dow Inc. - President & CFO

Yes. The -- on the 2 to 2.5 debt-to-EBITDA ratio, that’s a rating agency adjusted net debt-to-EBITDA target. So that’s over a long term. Typically, the rating agencies will look at 2 years back, current year and then come up with a forward 2-year forecast. So when we think about that 2 to 2.5 range or as I target the midpoint, in answering to Jeff’s questions of 2.25, that's over a 5- to a 10-year period. So as I mentioned, Jeff, we're slightly -- we're at the higher end of that range today. So you will -- you should expect over the next several years we'll continue to titrate that number down to the midpoint to 2.25. And depending on how things go, we might go to the lower end of that range, we'll see.

In terms of the capital allocation priorities, it is -- we intend to continue what you’ve seen from us, which is disciplined and balanced approach. The #1 priority for us is to safely and reliably operate our plants. And then the next is organic investment. So where we have low-risk, high-return, fast-payback projects that helps us continue to get the through-the-cycle average return on capital of the enterprise of 13% or more, we will do that. Dividends would be next. So as the net income increases, that dividend should increase in line with the 45% of net income over the cycle. And then share repurchases. And we -- like I said earlier, we’ll use share purchases to at least cover dilution, but then we will also be opportunistic in compares -- and the opportunistic share buyback to any other use of cash. And over the long run, our goal is to do the value-maximizing thing.

Operator

Next, we'll go to John McNulty with BMO Capital Markets.

Bhavesh Lodaya BMO Capital Markets

This is Bhavesh for John. A question on your equity earnings from the JVs. It looks like each of your II&I and P&SP segment is on track to deliver around $0.5 billion of earnings. Now quite a few unique regional dynamics and feedstock arrangements are at play here. But broadly, could you discuss where these businesses are in the cycle and perhaps any color on where you see the earnings of these businesses for the next year?

James R. Fitterling Dow Inc. - Chairman & CEO

Yes. Good question. On II&I and polyurethanes, I do believe that the demand and the operating rates for isocyanates will continue to stay strong into next year, maybe a little bit lower operating rates on polylols, but the key demand drivers and value drivers are going to be
those systems and solutions that are going into things like mobility, like construction, like appliances and, some extent, furniture and bedding and things that are driven by consumer growth. And that will continue to remain strong.

The only thing that we’ve got coming that would be a detractor from those earnings would be we’ve got a turnaround in this quarter on isocyanates and Sadara, but that’s been planned. And they’ll manage that. They’ve been running very well. I expect to see them in good shape next year. And as you know, their fixed costs are quite low. And so I think there will be a very good source for us to fulfill that demand.

Howard I. Ungerleider Dow Inc. - President & CFO

Just one point on maybe on the cash flow side, on the equity earnings, if you recall that dividends usually come from the prior year earnings, so with this year’s equity earnings up, as you pointed out, then that will drive a cash flow tailwind for us next year, probably in the range of at least $200 million to $300 million as we sit here today, possibly more.

Operator

Next, we’ll go to Laurence Alexander with Jefferies.

Laurence Alexander Jefferies LLC, Research Division - VP & Equity Research Analyst

Two questions. In the period with sort of the tighter supply constraints, have you seen a mix be a net positive or negative across the portfolio? In other words, how do you see things playing out when the supply constraints ease?

And secondly, with respect to decarbonization, so long as you could see a path to hitting your return-on-capital hurdles, how broadly would you consider vertically integrating in decarbonization platforms?

James R. Fitterling Dow Inc. - Chairman & CEO

On the mix, I think any time you get a tight situation like this, there’s a natural gravitation for the mix to move up. I would also say, though, that we’ve been trying -- customers are in close communication. And we’re trying, obviously, to keep everybody running. There’s a lot of juggling going on. There are some specialty grades where it’s hard to shift the mix up because things are so tight right now, especially in some of our elastomeric products.

On decarbonization, I think it’s just going to depend on the situation in the geographies that we’re looking at the investments. In Canada, we don’t need to do the back investment into CO2 capture and sequestration. And I think there are a lot of players that are out there that have capabilities to do that. So if we can keep our investments focused on assets that generate revenue for us and generate growth for us and are zero carbon emitting, I think there’s plenty of room for third parties and others to play to help us to handle the CO2.

Operator

Next, we’ll go to Aleksey Yefremov with KeyBanc.

Aleksey V. Yefremov KeyBanc Capital Markets Inc., Research Division - Research Analyst

I have a question about Slide 8, where you detail in-flight investments for $1.7 billion and $2.1 billion EBITDA contribution. In my math, this implies fairly high single-digit growth versus your base EBITDA. So can you at a high level explain why investors can have confidence in this target? What are you doing differently from sort of traditional Dow’s growth rate here? So anything that can sort of at a high level explain why this growth is achievable?

James R. Fitterling Dow Inc. - Chairman & CEO

Yes. I'll start and I'll ask Howard to fill in a little bit, but I'm going to start with silicones because that's an area that grows at 2x GDP. And if you look at mobility and if you look at electronics and if you look at consumer applications, they're going to continue to grow as well as we've got expansions coming for silicones products into construction sealants for glass glazing for big skyscraper buildings. So that is high GDP growth, and that's going to continue. In Industrial Solutions, not only highest-value return to ethylene, but also high-value downstream growth, driven primarily by consumer applications. To some extent, oil and gas, which we see recovering. I know we have many, many cases where our oil and gas products help people reduce CO2 emissions in the midstream production.
And then things like ECOFAST Pure, which is a partnership with Ralph Lauren, where we just open sourced that technology to use that product, which would get textile mills that use cotton to switch over to a product that is -- uses 90% less chemicals, 50% less water, 50% less energy. I think that's a huge driving force towards more sustainability in an area that's a tough environmental aspect.

And then, if you go to PM&C, we've got continued growth in our downstream systems, which have been growing at greater than 11% per year for a long time. We'll continue those investments. We've got high-growth targets for our downstream coatings business to continue to keep up with the demand, specifically traffic demand. Howard mentioned paper demand for paper cups replacing others with our roll bar dispersions and also architectural demand, which is our growth leader in that space. And then you get back to Packaging & Specialty Plastics, which is continuing to grow above GDP, about 1.4x GDP in our forward forecast.

It's very dispersed. So when we talk about $3 billion of EBITDA growth over that time period, it's pretty evenly split between all 3 segments, and you're going to see about $200 million to $300 million of it come on next year, and that is projects that are already completed and will be finished by the end of the year.

Operator

All right. Your next question comes from Arun Viswanathan with RBC Capital Markets.

Arun Shankar Viswanathan RBC Capital Markets, Research Division - Senior Equity Analyst

Congrats on a strong quarter. So I just wanted to get back to the polyethylene discussion. I guess we're hearing some conflicting things because we saw an ACC number on inventories of mid-40s on days of supply, maybe 47. And then, it appears that the September, October increase on polyethylene has stalled as well. So is that -- are those correct characterizations? Or would you say that the market is really tight and you do expect further increases as we go through the year?

James R. Fitterling Dow Inc. - Chairman & CEO

I think mid-40s number on days of inventory is kind of an average number. But remember, sometimes the inventory numbers are things that are locked up and can't get shipped out. And so I think that's the main delta in some of the data that I shared with you. I would say, demand and production, I think, are both going to be strong in the fourth quarter. I also think some of the shipment delays are going to moderate as we get through the quarter. And I think that will help. But 40 -- 40 to 45 days of inventory is not much inventory for the polyethylene business.

Operator

Your next question will be from Christopher Parkinson with Mizuho.

Kieran Debrun Mizuho

This is Kieran on for Chris. I was just wondering if you can touch a little bit between II&I and PM&C, you mentioned third-party supply constraints. Can you just talk about what you're seeing in terms of those third-party supply constraints and whether you see them easing into the fourth quarter into first half of next year is something that you continue to expect to persist throughout 2022?

James R. Fitterling Dow Inc. - Chairman & CEO

They are primarily -- the third-party supply constraints were primarily industrial gas suppliers. They were racked pretty hard earlier in the year from the Texas freeze, and then they got hit again from the hurricanes in Louisiana. It is improving. I expect it will continue to improve through the quarter. And I think they're working hard. I know they're working hard to work on reliability and get the assets back up. And we're working hard as well to make sure that we've got redundancy in those supplies. So we'll take actions like we do after events like this and make sure that we've got redundancy in the supply as well, but that was the primary impact.

Operator

All right. Next, we'll move on to Steve Byrne with Bank of America.
Matt DeYoe BofA Global Research
It's Matt DeYoe on for Steve. Just a question on polyurethanes. I think you touched a little bit on this, but where do you think we are in the cycle? Because even earlier this year, we had some of your peers talking about over-earning. I know we've had a lot of outages, but demand is still really strong. Inventories are light. So how does this shake out into 2022?

And then as you push downstream into systems, what do you expect the margin uplift to be? And how is the business maybe different from like an SG&A intensity perspective?

James R. Fitterling Dow Inc. - Chairman & CEO
I think supply/demand balances are pretty favorable through 2026 because durables demand has been outpacing the supply growth and durables pull a lot on MDI and TDI operating rates. And so, I think you're going to see an earnings ridge in the business that we haven't seen. They've also been a fair number of delays or rationalizations of capacity. And we've also seen, obviously, margin uplift in that segment for polyurethane systems.

Operator
All right. And we'll take our final question from the line of Matthew Blair with Tudor, Pickering, Holt.

Matthew Robert Lovseth Blair Tudor, Pickering, Holt & Co. Securities, LLC, Research Division - MD of Refining and Chemicals Research
Howard, I think you highlighted the feedstock flexibility in your crackers. Just given the volatile energy markets, do you have any specific examples of the kind of changes you've been making? For example, are you switching away from propane either in the U.S. or in Europe?

And then also, if you have any thoughts on the recent widening of the ethane-to-natural gas spread, I think that's about $0.08 a gallon. Do you see that as kind of a short-term blip or perhaps something maybe a little bit more medium term?

James R. Fitterling Dow Inc. - Chairman & CEO
No. Go ahead, Howard.

Howard I. Ungerleider Dow Inc. - President & CFO
Jim is looking at me, so I will take that. Look, I would just say this, our feedstock flexibility is really a key enabler of our consistent outperformance versus our peers, as you've seen in the last several years of our annual benchmarking. It includes what I would say is unmatched feedstock flexibility for most of our feeds. So we've got the ability to max ethane on the U.S. Gulf Coast. We also have propane. We can do minimum naphtha, if we need to in Europe. We also have the ability to do max LPG. To your point, I mean, propane is not necessarily in the slate right now, so you're not doing that in Europe. But then you also look at the point that Jim made earlier, which is we've got our Canadian advantage. We've got the feedstock flexibility in the U.S. Gulf Coast. We've got the Argentinian advantage, and we also have the Middle East.

And I also think when you talk -- a lot of people talk about feedstock flexibility, but most of the time, what that means is they have 3 furnaces that can crack this speed, 2 furnaces that can crack this speed. When we talk feedstock flexibility in furnace flexibility. So we have the ability to switch within the furnace, and we can do it -- frankly, we can do it day by day. Typically, we do it every week. Do you have anything to add?

James R. Fitterling Dow Inc. - Chairman & CEO
I would only add 2 things. It isn't always a linear equation when you switch from cracking ethane to propane. At these propane prices, some might expect that propane was out of the crack slate. And actually, we've been cracking a fair amount of propane because we're generating a lot more by-products out of that, and we need them all. And so it has been in the slate more than you might expect. And I think as the natural gas prices moderate going into the year, we're going to see that the ethane and propane advantage in the U.S. Gulf Coast is going to be there.
Pankaj Gupta Dow Inc. - Investor Relations Vice President

Very good. I think that's all the time we have for Q&A. Thank you, everyone, for joining our call. We appreciate your interest in Dow. For your reference, a copy of our transcript will be posted on Dow's website within the next 24 hours. This concludes our call. Thank you.

Operator

And again, that does conclude today's conference. We thank you all for your participation. You may now disconnect.