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Methanex Corporation

Investor Day 2022

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CORPORATE PARTICIPANTS

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PRESENTATION

John Floren

We're going to get started. Thank you all for attending our Investor Day here in Geismar, Louisiana. A special welcome to the investors and analysts joining us virtually. We appreciate that this is a major time commitment, particularly for those who are here with us in person, so thank you.

We hope that you'll find the presentations today from myself and the other members of our Executive Leadership team to be useful in expanding your understanding of our company.

I want to remind everyone that our remarks today may contain forward-looking statements and non-GAAP measures. You can refer to the slide at the end of the presentation which has been posted on our website for more information.

Before we move into the detailed presentations, I would like to start with a brief overview of our strategy, a look back on what we have delivered over the past 10 years, and the investment thesis looking forward.

Each share of Methanex represents an investments in a global methanol market leader. We have the leading market share, cost competitive assets, and a franchise value that is difficult to replicate. Our vision of global methanol leadership has been our unwavering goal since the Company's inception in 1992, and we have had a clear and consistent strategy to achieve this.

Through the strategic pillars of leadership, operational excellence, and low cost, we created a sustainable, competitive advantage through an unmatched security of supply to our customers; our strategy was tested in 2020 when the world was shut down by the COVID-19 pandemic. We learned some important lessons during that challenging time, including that our strategy works even under pressure. I am very proud of our global team and how they work together under difficult circumstances to ensure that the company continues to operate and deliver value to shareholders. I'm happy to say that we've come out of the experience a stronger and more resilient organization.

As the industry leader we are committed to growing with the market. Our highly advantaged G3, Geismar 3 or G3 project will allow us to maintain our market share and significantly increase our cash generation

capability. Vanessa James will discuss the competitive advantage that we have gained from our market leadership. About 13% market share is roughly double the size of our next largest competitor.

Another key aspect of our market leadership is having a global presence across all markets, and Rich Sumner and Kevin Henderson will talk to this. Our global supply chain gives us enormous flexibility and agility to deliver on our commitments to our customers.

Although size is important, we believe that leadership is more impactful as this allows us to lead all aspects of the methanol industry, including market development, safety, product stewardship and sustainability. We are proud to be the leaders in safety and sustainability in our industry, and are committed to reducing our assets' carbon intensity by 10% by 2030, amongst other sustainability initiatives that will be discussed later this afternoon.

I wanted to take this opportunity to take a quick look back to see where we have come as a company over the past 10 years. We have improved our safety performance to be in the top quartile and have enhanced our reliability. Improved safety and reliability performance coupled with the relocation of G1 and G2 to Geismar, the two low-capital and high-return growth projects with our G1 and G2 debottlenecks, and the Chile 4 restart has driven strong produced sales growth. For 2022, we expect to continue strong production of approximately 7 million tonnes. Later this afternoon Kevin Henderson will discuss the strategic initiatives that the company is currently pursuing in the areas of safety and reliability.

Reliability is important as it enables us to provide secure supply to our customers, lower our CO_2 intensity and enhances profitability as the last tonne produced is always the most profitable. I strongly believe that safety and reliability go hand-in-hand.

Over the past 10 years our growth in low-cost production assets and robust pricing has driven record EBITDA for the Company. Our excellent track record of capital discipline and accretive capital allocation has allowed us to return over $2 billion to shareholders and invest approximately $3 billion to grow the business.

Looking forward, I want to lay out the compelling thesis to invest in Methanex, the leading global pure play methanol producer. First, we are the leader in the industry with a positive long-term outlook. The methanol industry is forecast to experience demand growth due to limited supply additions in the next five years which drive a favorable industry outlook. The supply demand dynamics should support pricing. We believe G3 will start commercial production when the industry needs supply.

Being the leader in the methanol industry allows us to be the supplier of choice to our top tier global customers as we can offer them quality product and security of supply because of our global asset portfolio, dedicated shipping company and local customer services. Our asset portfolio has strong cash flow generation capability over a range of methanol prices. That cash capability will grow significantly with the addition of G3. We also have the potential to further increase that capability with improved gas availability in Trinidad, New Zealand, and Chile.

We have a strong track record of disciplined capital allocation. We are committed to returning excess cash we generate to shareholders after maintaining our business and growing where it makes sense.

As the world transitions to low carbon economy, we are well positioned in an industry with a product that will continue to be needed as a path to be low or zero-carbon. We have innovative opportunities for our existing asset portfolio as well as for new projects to lower our greenhouse gas emissions. We have dedicated resources in place to ensure that we are well positioned to continue to lead in a low-carbon economy.

We believe Methanex represents excellent value for investors with attractive growing free cash generation capabilities with G3 coming online.

I hope you enjoy the presentations today and I'll be back at the podium to answer questions at the end of the afternoon.

With that, I now turn the podium over to Rich Sumner, our Senior VP, Marketing and Logistics, to give a market update and talk about our competitive advantage of security supply.

Rich Sumner

Good afternoon everyone. Today I'll be discussing a number of topics. First I'm going to start with key industry fundamentals. On the demand side we'll look at the current make-up of demand, what we're seeing around demand growth in 2021 and 2022, and then I'll discuss some of the new and emerging applications for methanol as a low-emission fuel.

On the supply side, we'll take a look at firm capacity additions, and then combine that demand and supply into how that translates into tight industry balances going forward.

Finally, we'll take a look at what we see as Methanex's unique leadership position in the industry, and how we achieve that.

First, let's start with demand. We currently estimate the market is about 85 million to 90 million tonnes, and we split the market into three broad segments. The first is traditional chemical applications. The second is MTO or methanol-to-olefins, and the third is energy related applications.

Traditional chemical applications make up 50% of demand, and this includes products like formaldehyde, acetic acid, methyl methacrylate, silicone and others that goes into a broad and diversified set of consumer and industrial products.

MTO makes up about 15% to 20% of demand. That's really 11 world-scale plants in China that each consume 1.5 to 2 million tonnes of methanol in the production of ethylene and propylene, which then is used further into production and through the olefins chain.

Energy related demand makes up the remaining 30% to 35% of demand and about two thirds of that goes into well developed fuel applications like MTBE which is an oxygen in gasoline, and in the production of biodiesel, and then about a third of that is in the new and emerging applications that I'll speak to in a slide.

In terms of demand growth, into 2021 and into 2022, we've seen strong demand in traditional chemical applications. By their nature they tend to growth with GDP rates and we've seen strong GDP growth around the world underpinned by strong consumer demand.

For energy related demand, transportation fuels have also been stronger post pandemic, and that combined with high energy prices as well as supportive emissions regulations is helping fuel demand for those applications.

On the MTO side, we saw high operating rates through 2021 until late into the fourth quarter when operating rates declined for a number of different factors, one of those being energy restrictions imposed by the Chinese government. Since that time we've seen those restrictions removed and the MTO industry is operating around 80% to 90% rates, which is consistent with historical operating rates. We also expect

to see a 1.8 million tonne MTO unit, the Boha (phon) unit in North China starting up in the second half of 2022.

Overall, we've seen strong demand and obviously we're continuing to monitor a lot of the global economic headwinds that are out there. Over a five-year period, taking a 3% growth rate, we would see the industry needs about 14 million tonnes of new supply to balance the market.

Now I wanted to take a closer look at these cleaner burning applications, so I'm going to focus on three of those. The first one is thermal applications in China. As part of China's policies to improve air quality, we're seeing methanol being used to displace coal in industrial, commercial and residential boilers, kilns and furnaces, and we're also seeing it being used in residential and commercial cooking stoves as a cooking fuel. We would estimate that today there is about 4 million o 5 million tonnes of demand into those applications in China.

Then secondly, I wanted to highlight methanol being used as a vehicle fuel. It's really being used both as a cleaner burning fuel but also as a substitute for imported diesel and gasoline. This can be achieved through low-level blending, which has been adopted in China, and it's also being looked at in India as well as various countries in Europe and Latin America.

This can also be achieved through M100 fuels. Geely, who is one of the largest automobile manufacturers in China has developed both car and heavy duty truck technology for M100, and today this technology is supported by various national ministries in China, especially for inland provinces where it's high-cost gasoline and diesel. Geely has launched taxi fleet programs in various cities across China and we would say there's about 30,000 M100 vehicles operating today. And they also just launched their first fleet of heavy duty trucks (inaudible) 1000 trucks. There's about a half a million to a million tonnes of demand into those applications.

Lastly, I just want to talk about methanol marine fuel and I'll get more in detail on the next slide on the marine fuel, but over time the IMO has placed more stringent emissions requirements on the marine industry. That started with SOX and NOX emissions, and now as part of their own greenhouse gas strategy they have set targets around CO2 reduction; that's 40% by 2030 and 70% by 2050.

When we look at the attributes for methanol as a fuel, methanol reduces SOX and particulate matter up to 95% and NOX up to 80%, and because there's various proven pathways to reduce the carbon footprint of methanol all the way to zero, it's being increasingly looked at by the marine industry.

A bit of history on the marine side. As part of meeting these cleaner emissions, Methanex Waterfront Shipping MOL and our partners including MAN Engine developed the first methanol dual-fuel chemical tanker technology. We have been operating these vessels since 2016. This has really put us in a leadership position there from a technology perspective. The vessels are on their third generation and we're in a lot of discussions with a lot of shipping companies in relation to this application.

We expect this to continue to gain interest and momentum, so you'll see here we say that there's 65 dual-fuel vessels within the 2025-2026; these are vessels including our own 19 vessels that are actually on order and will be in the water by those dates. You'll see the big name here obviously is Maersk, and Maersk has 13 container ships on order. We're starting to see a lot of interest across different segments in the marine space: container ships, dry bulk, ferry, cruise lines, tug and barge, all looking at that. Then what we see also is the OEMs beyond MAN – Wärtsilä, Rolls-Royce, Caterpillar, all developing methanol dual-fuel technology to meet their customer needs.

Just last week, CMACGM, who is a top five container shipping company in the world, just order six new dual-fueled container ships, and those would consume around 200,000 tonnes to 300,000 tonnes of methanol operating at 100% of the time. So, a very, very exciting area.

Methanex is doing a lot to support this. From a project perspective we're involved with the Fastwater Project in Europe, which is consortium with the Port of Antwerp and ABC, doing demonstration retrofits of various vessels. We're also sharing a lot of operational and technical experience with various shipping companies that are interested in the application. On the bunkering side we're working with The Methanol Institute to promote the availability of methanol at all major ports in the world, and also the ease of bunkering. In 2021, we partnered with the Port of Rotterdam and Vopak to do the first methanol demonstration bunkering. Obviously on the supply side, we're in real discussions with shipping companies on supply, whether it be conventional methanol availability as well as lower carbon alternatives. A very exciting area and we're actively developing this.

Now, switching from demand to supply outlook, this graph shows supply additions over the past few years and then a look forward to capacity additions in the next five years. When you look at the forecast of firm supply, beyond G3 there's really no capacity, just additions in the Atlantic markets. We really have good visibility on this given the typical project development cycle. So when you look beyond G3, really the additions to the industry is coming from Malaysia, a project in Malaysia, China and Iran. When we think about Iran, there's a lot of uncertainty as to the timing of those projects, as well as the amount of actual supply that we'll see. Since 2018, Iran has brought on a number of world-scale methanol projects, and we've seen those operate at very intermittent basis at relatively low operating rates. We believe that is for a number of reasons: natural gas restrictions, plant technical issues, utility issues. So, the amount of supply that would come is highly uncertain.

This means firm new capacity additions are likely to be insufficient to meet growing demand, and the industry would need to operate at higher rates to balance the market. There are a number of other markets in the Middle East, Africa and Russia, but we feel a lot of those are at very early stages.

This next slide puts together industry demand using a 3% growth rate and supply using only firm capacity additions, and the yellow line is what would be required in terms of increasing operating rates in the industry to balance the market. You can see that there's a meaningful increase required. This would have to come from various jurisdictions, be it China, Iran, Trinidad, Europe among others, and there's obviously a lot of limitations to the capability of doing that, whether it's high cost or constrained feedstock, geopolitical issues, technical issues, or other constraints. So, when we see the industry balance going forward, we look at it as a really tight market and one that highlights the attractiveness of bringing G3 into the market today.

One last point on the market I wanted to make is in relation to the olefins market and the impact on MTO and MTO affordability. The olefins market has gone through a period of demand outpacing supply and that's really on the back of capacity additions that were added or plants that were committed to back in the 2013/2015 period where we had really high oil pricing and a very tight olefins market. Those supply additions have come into the market and even though we've seen a run up in energy prices, we've still seen quite a squeeze on olefins margins over the past few years. When you look at Wood Mac's view of industry supply and balances in the olefins market, you see that the (audio interference) actually moves and reverses into more of a demand outpacing (audio interference) and at relative oil pricing more support to ethylene and propylene prices going forward, and MTO affordability.

Then finally, bringing it back to methanol pricing, this is just a really illustrative snapshot of the industry cost curve. Just to make a few observations, it's a relatively steep cost curve, which is represented on the right-hand side by high cost marginal coal production and natural gas production in China. Our assets are well positioned at the mid to low end of the cost curve, which allows us to operate at all points in the

cycle. Then at higher energy pricing we believe that it better supports MTO affordability as well as affordability into other energy applications, these new and emerging technologies.

Now I'll bring it back to Methanex and Methanex's industry leadership position.

As John said, we're the world's largest methanol producer and marketer with about 13% of total merchant market on global sales. This slide shows demand and our regional global sales reach with major positions in all regions in the world. This is only possible through our global integrated supply chain, and that really starts with our methanol assets, regionally diversified in New Zealand, Chile, Trinidad, U.S., Canada and Egypt. Then together with Waterfront Shipping which is now 60/40% JV with MOL, we operate 30 dedicated time charters that flexibly deliver from our manufacturing sites into our marketing regions.

Within each marketing region we have our offices that are managing an extensive network of terminals, and also managing our in-region logistics capabilities with our longstanding service providers.

All this allows us to really tailor our global company; we're able to tailor needs to our customers in different countries, locations, and also delivery mode, be it vessel, barge, pipeline, rail, truck. We today sell in approximately 30 countries to 150 customers and have well over 500 actual delivery points or ship-to locations in our network.

These globally integrated businesses allows us to have scale to manage an efficient, reliable supply chain and together with our commitment to Responsible Care all through the value chain we're able to meet our customers' needs for safety, quality, and reliability anywhere in the world. It's why we believe we're the preferred supplier to major consumers in the methanol markets. We also think this has created a franchise that is very difficult to replicate, and obviously we continue to invest and improve, and it's really our One Team execution that's at the heart of the success.

Lastly, just before we move into wrap-up I wanted to mention Waterfront Shipping. Already noted, it's a key part of our integrated supply chain. We're really excited about the involvement of MOL; they now own 40% of Waterfront Shipping. It's a 30-year relationship and they bring over 200 years of shipping experience, which we think is going to be great for our shipping business. Then we'll be operating 19 dual-fuel vessels, and what we're looking forward to is really advancing with a world leader methanol as a low-emission marine fuel.

Just to wrap up with some key points, really emphasizing demand growth forecasted to outpace supply and capacity, higher operating rates needed to balance the market, higher energy pricing supporting MTO affordability, as well as affordability of these new and emerging applications, and really that we continue to invest in our global integrated supply chain, which we think gives us a competitive advantage as a leading supplier to the industry.

Thank you. Now I'll turn it over to Kevin.

Kevin Henderson

Good afternoon. I'm going to start with Responsible Care and one thing about Responsible Care is it's not just safety; Responsible Care is an ethic and it covers all parts of our business. Responsible Care is all about your management—overall it's a management system, so it covers employee training, it covers engineering systems, it covers off safety programs, environmental programs in all aspects. We've been verified with Responsible Care since 1997. We were the first company in the world to verify all our sites around the globe. So, what you've seen here in Geismar around safety and the behaviors and things, you will see at every single one of our plants. It's a consistent approach across our organization.

Personal safety is core to our business. We want people to come in every single day and leave at the end of the day exactly the same way that they came, with all their bits and parts and everything in the same place. So, it's really core to us and our business and we strive for perfection in this area on a continuous basis.

The next area is environment and we meet all our local requirements and regulations in every jurisdiction and we don't have varying standards from one region to the other. It's consistent across the whole organization and we continuously upgrade our existing assets to continue to meet all those expectations. It's not relying on how that plant was built or using that as an excuse; we continue to improve across the organization.

Process safety is fundamental. Process safety is these big events that could really damage our plants or hurt people. It's an ethic and everybody believes in it, and everybody has goals around Responsible Care on their annual goals. We believe it, we live it and we continue to strive to improve in this area.

One of the codes within Responsible Care is stewardship and accountability. We work with all of our suppliers. We work with all of our terminals. We work with the shipping companies. We share practices around and safety with methanol. We go out and we do training, fire training with our emergency response companies. We look at routing to make sure it's the safest route. All those things are core to what we do.

The other area is around community involvement. We have community advisory panels in every jurisdiction that we have, and we meet with them, we talk about how our business is going, what are the risks. When we build a new facility like Geismar 3, we involve our community advisory panel. We make sure that we don't impact our neighbors, or impact them to as minimal amount as possible.

As I said, safety is our number one priority and occupational safety is one of those metrics. You can see over the years we continue to improve in our occupational safety area by measurement of recordable injuries. A recordable injury is measuring after the fact and we want to be more proactive, so we have programs in place that continue to push us to improve. Those programs are things like Leadership Presence. We have a goal of all of our leaders to be out into our facilities on a regular basis, continuing to push that bar higher and continuing to have higher and higher expectations in the area of safety.

The other thing that we've done is we've introduced a hazard recognition program. That hazard recognition program is around getting out there, all our employees, all our leaders, looking for those hazards where we could have somebody get injured and remove those before something happens.

The other thing we have is a program called Switch On to Responsible Care. That's all about capturing their hearts and minds and getting people involved and what's important to them; why do they come to work every day? Why do they want to be safe? What are those things important? Their family, their sports, whatever it might be, what's important to them and think about that before they make a decision.

The other area of big focus has been contractor management. We've really stepped up our game with regard to contractor management, with regard to evaluating them, with regard to who do they bring on site? What are their qualifications? Recently, in Egypt, as an example, the team interviewed every single person that was coming on that site for a turnaround so that they could understand what's their qualifications, do they understand, do they work safely? It's really stepping that bar up in this area.

Another metric we use is potential or severe injuries. These are injuries that somebody could have a debilitating injury, so they have a lifelong injury that they are going to have to live with, where they don't have the same mobility or the same use of their body that they might have had before, or somebody could actually be killed. These are what we call PSIFs, potential or severe injuries or fatalities. We do a

detailed dive on these in order to make sure that they're not going to happen. We put things in place to prevent them from occurring in the future, so our PSIF number continues to come down and that's because we're focusing on it. Again, that's being more proactive and not being reactive to things after they occur.

Our whole program is trying to get to be more proactive, more 'Let's do something about it before it happens,' versus waiting for it to happen.

As I mentioned, Process Safety is critical to our business. We've implemented a robust safety Process Safety program and you can see our tier events are down. Their still not down to zero where we want to be, but you can see that consistently we have about one Tier 1 event each year, and our Tier 2 events have come down dramatically over time because of that focus that we're giving. And now we're going down to what we call Tier 3 events and we're increasing our focus on all of those incidents in order to lower that bar even further and hopefully get to zero across the whole organization.

When we do have a tier event, we learn from it. We do a detailed deep dive on these tier events, and you may have remembered in 2019 we had a significant event in Egypt where we had a steam header that ruptured on us and did significant damage to our facility. That incident we went back and looked at how the design was of that plant, how it was built, and we took those learnings from that and we've applied it across our organization. So everything we learned has gone into the G3 project to make sure that it doesn't happen there. We also shared that incident outside Methanex because we don't want this to happen to someone else. It's all about learning and development and improving the organization.

Again, another area of focus for us is environmental. We continue to stay focused in this area and you can see that our major incidents and serious incidents have dropped of dramatically, and we're really talking about the minor incidents now. We're getting into the detail and starting to assess every single little leak that we have, understand how do we prevent them occurring. Because if we can stop them at that point, it's less likely that we're going to have bigger events in the future. Again, another area of continuous focus for us.

A little bit about our plants. I think most of your are aware of our plants that we have and we operate. I will start with Geismar. We have Geismar 1 and 2, and those plants were built at a million tonnes each, so 2 million tonnes capacity, and we debottleneck these by importing CO_2 and earlier on we talked about Geismar 1 and 2 are hydrogen rich, and we import CO_2 and we're able to make more production. So, we're not 2.2 million tonnes per year there. These plants originally were in Chile as Chile 2 and 3, and we moved them up here and they were commissioned in—both of them came onstream in 2015.

These plants are some of our best operating plants. Geismar is an extremely attractive facility for us.

The next plant is Medicine Hat. Medicine Hat is 640,000 tonnes, and again this is an area where we—it was our first CO_2 injection; it's a steam methane reforming facility with excess hydrogen. We inject CO_2 from a neighboring CO_2 plant into our process and we've been able to bump up our production. That plant was originally built at about 480,000 tonnes and we've been able to debottleneck it up to 640,000 tonnes. A significant improvement across that plant. That plant is backed up with a long-term gas contract into the next decade, so it's well positioned.

New Zealand, we currently have our two larger plants operating there and they're producing around 1.5 million metric tonnes per year. We do have the potential to expand that production in a number of ways if we got a little bit higher CO_2 gas or if we were able to restart the Waitara Valley plant, so we could get potentially that site up to 2.2 million tonnes of production. It would take significant capital to get the Waitara Valley plant up, so we would need a long-term gas contract. That facility there is backed up with a methanol sharing gas contract up to the end of the decade.

Trinidad we have two oxygen-based plants. These were our first oxygen-based plants.

The Egypt plant, we have excellent gas availability and lots of gas exploration in that country, so it's one of our—probably one of our best plants in our fleet. A lot of the technology that is being installed into G3 came from the Egypt design. The ATR is same design. The synthesis loop is the same design. Fire heater is actually Chile design, but we take all the best from all of our assets and we combine them and learn and grow as a company.

Then the Chile plant, we restarted the Chile 4 plant back in 2021 and we did have some growing pains with operation with that plant and it was more around I think the understanding of that plant and our people learning and developing, and now we operate it I would say very well. In fact, we've operated it at 100% reliability for the last year or so. The team is doing really well down there. We have confidence we're going to continue to get more and more gas. We are operating at about 65% rate. We will be for the winter on all Chile gas for Chile 1 this winter, and we expect gas from Argentina in the beginning of the summer this year, their summer.

That's it for the plants.

Emission intensity. What are we doing to reduce emission intensity? The biggest impact that we're going to have is the startup of Geismar 3. Geismar 3 is much lower emission intensity. It's around 0.4 tonnes of CO_2 per tonne of methanol, and our fleet average is around 0.62. The biggest impact on emissions is unreliable operation. Every time you cycle the plant you have to go through a warming process; you flare a lot of gas, you're inefficient in those early stages of operation. That's our biggest impact to CO_2 emissions that we can directly control.

We've done a lot of focus on emission intensity, or I should say reliability improvements, and so that's one thing that we're doing. We also measure our CO_2 emissions on a daily basis now and report it on a daily online basis in every location. Every facility can look and see how are they performing, and when they do something in the plant they will see immediately what that impact is to CO_2 emissions. We've kind of brought it home a little bit, rather than looking at just efficiency; we also talk about it in CO_2 emissions.

We are looking at improvements in our existing facilities. Now, we've always continuously improved and always looked at ways to add value to the business, but now what we've done is we've gone back and taken another visit on this in the current environment to see is there some opportunities. We have identified a few we think that we possibly got in the range of about 200,000 tonnes of CO_2 that we could reduce on an annual basis through ongoing improvements in our facilities. A couple of those that we've moved forward, we've done a couple gas recovery projects in our Trinidad facility, and we are looking at doing a re-tray in our New Zealand distillation columns, which will allow us to operate on two distillations, versus three distillations which would improve us by about 0.5 gigajoules a tonne production.

There's some power generation things we're looking at and also some additional methanol recovery opportunities in our—in some of our purge gases that could add some more tonnes and reduce our intensity. The other thing we're looking at is carbon capture and storage. Right now, we're in the feasibility stage. There's a number of different technologies. It's basically all aiming, solution based. It depends on the type of solution and the efficiency of that solution for the different new gases that we have.

There's a lot of work to be done there. Then how do you integrate that into your facility? How do you get heat recovery and how do you get the best out of that? There's a lot of work to be done there and I know there's been a lot of questions around dollars and dollars per tonne and things like that but it's kind of early days for us on that. We certainly don't want to give you something that we can't stand behind.

There's pre carbon capture and post carbon capture. You will have heard of green hydrogen. Green hydrogen is kind of, call it a pre carbon capture. These are basically big hydrogen plants. You make more hydrogen through your reforming process and then you take some of that back up—back as fuel, so you have no CO_2 emissions coming off your stack. That's basically pre carbon capture. Post carbon capture is when you take your flue gas and you run it through an aiming system, and you remove the CO_2 in that area. But both require utilization or storage of that CO_2 of some form. We're working through what's the best approach for us.

Then the last thing we're looking at is new technology. As you saw with Geismar 3, there's an improvement in technology and I would say current new technologies of combined reforming facilities get very close to what our Geismar 3 plant is and maybe slightly better than what our Geismar 3 plant is. But we are looking at our own design that could potentially get us to even lower numbers. Instead of like the 0.4 number of CO_2, tonnes of CO_2 per tonne of methanol, we could get down into that 0.2, 0.3 tonnes of CO_2 per tonne of methanol. If you add green power you could effectively get down to close to zero tonnes of CO_2 per tonne of methanol.

Those are things we're looking at. That design has about a, so if you look at the 0.4 today. If you just go to without the green power, that's a 43% reduction in CO_2 emissions. It uses 11% less gas and about 50% less water. That's something that we're looking at and that's kind of end of the decade before we know whether we could do that. That's using will trial, some of that equipment in our facilities so that we can actually utilize it in a new plant design, if the location and situation fits. Again, we will be evaluating that against building a plant right off the shelf if you want in a current existing with carbon capture instead. It will be what's the best option for us.

As I mentioned, reliability helps to drive emissions intensity and our goal has always been to get to 97% or better and last year we achieved that. It's probably our best performance since I think 2009, so a significant improvement in our performance on an ongoing basis. Again, this year we're above 97%. We benchmark ourselves against industry and the last benchmark we did, I think industry, and this is under your, let me say your better performing people in industry. We benchmark against that group and ongoing reliability for them was around 93%. We're running at that 97% plus.

How did we get there? We have global teams. We investigate and look at all our incidents that we might have that impact reliability. It's our capital management program. Are we putting our capital in the right places? It's looking at all of our assets and making sure that we're proactive and repairing and improving the plant where we can in order to reach these reliability targets. Then we have a group of global experts that support our team. They're providing knowledge in the areas of process engineering, water treatment, rotating equipment, turnarounds, electrical instrumentation, and operations and static equipment. It's a very solid team and they're looking at our plants all the time on how do we improve.

Everything that we learn in our plants and everything that the standards that we create are then used and incorporated in a new plant, such as G3. We've got Methanex project standards that we use in our plants and whenever we're making a change within the plant we use them. For a new plant, G3, all those were transferred over and incorporated into it, into the design. Hopefully that achieves an even better operation of Geismar 3.

Just to recap. Safety is our top priority. You know, you will hear it from the top all the time. I mean, John will say it continuously. Safety is the most important thing that we do. It impacts everything that we do. If we have a safety event, it impacts our cost. It can have so many impacts to the public. It impacts our reputation. It is by far and away our top priority and as I said, everybody has this as a goal, as their own personal goal.

We have an advantaged asset portfolio and Geismar 3 is going to add to that. Geismar 3 is a fantastic project and I know you guys had a chance to look at it, but I think from my side, I'm very excited about it. It's got great technology. We're pursuing initiatives to reduce emissions.

Thank you.

Vanessa James

Over the last 30 years as a company, we have continued to build on our vision of global methanol leadership to the point where we are today, the clear global leader in a growing industry. We continue to build our company around our strategic pillars of low cost, operational excellence, and market leadership.

I think you heard from Rich and Kevin today in terms of many of the elements that contribute to our global market leadership, including our reliable operations and our globally integrated supply chain. We believe our competitive advantage would be difficult, costly, take many years, if not impossible to replicate. The capabilities that we have developed over the 30 years while we've been in business, and what makes us pretty unique as a chemical commodity in this space.

Our singular focus on methanol has allowed us to develop what we call differentiating capabilities to enhance value, lower our operating costs, particularly in the area of logistics, and ultimately be the supplier of choice to our customers. The construction of the G3 advantage world scale 1.8 million tonne project, as well as embedding ESG into our strategy, those are key focus areas that we have within corporate development today as we build on that global methanol leadership.

A lot of conversation obviously at the moment around gas, so it's worth highlighting our gas strategy which is a key part of our low-cost pillar. It's based on the principle of ensuring that we can continue to operate our plants profitably through all points of the methanol cycle. There are two approaches that we have to gas strategy across our asset portfolio. In our manufacturing locations outside of North America, that's New Zealand, Trinidad, Chile, Egypt, all our gas contracts are linked to methanol prices.

With a focus on ensuring that we operate profitably through all points of the methanol price cycle, so we share the upside with our gas suppliers when methanol prices are higher and conversely, when methanol prices are at a lower point, we pay a lower gas cost. These long-term gas contracts obviously provide cost flexibility through the cycle, but they also create alignment with our gas producers around the world in terms of we share in the upside in a higher priced methanol market.

For our North American assets, being Geismar and Medicine Hat, we talk about North America in its entirety. Given the very liquid gas markets and the fact that commodity price linked gas contracts are not standard, we have taken a strategy of pursuing an active gas hedging program in place to manage that gas price risk. The strategy here in the simplest terms is to ensure that our minimum operating rates we can continue to operate our plants at all times. That's the basis of the 65% hedging policy that we put in place to ensure that at a minimum we can continue to operate all those plants.

It's an active, rolling hedging strategy and we have various levels of hedges layered in through the next 10 years. Look at last fall, what's the price that you hedge at, and I would say what we would do is it's based on a delivered cash cost target that allows us to deliver into our markets during the low end of the cycle. But I think it's also worth highlighting, particularly in the current gas environment that we find ourselves in that we are hedged for 85% of our needs next year across our North American assets. If you look at the current forward Henry Hub cost curve, we are—it provides us with a really strong cost advantage heading into 2023.

For those of you that are here in person today, you will have had the great opportunity to do the tour this morning and see the significant progress we've made on our G3 project. First and foremost, and to echo Kevin's point, we're really pleased with the excellent safety record on this project. We've completed over 2.8 million work hours without a lost time injury and as everybody knows, a safe project is ultimately a successful project.

With the engineering and procurement predominately complete and with all the key equipment and materials already on site, we've eliminated most of the supply chain and materials cost risk exposure, so we now focus on the construction phase of this project. To date, we're about 55% complete on the project overall. We have a very experienced, excellent owners team in place and we're really benefitting from the decisions and the work that was taken during the deferral period. Our timing on restart has really placed us ahead of any other construction project in the area as we consider competition for labor.

It's a cost advantage capital project, given the brownfield advantages that exist from the existing infrastructure from the G1 and G2 site, as well as we talked about the capital cost advantage. Given G3 uses excess hydrogen from the G1 and G2 sites, so it eliminates the need for a primary reformer. It can continue to make excellent progress and we're confident in our ability to deliver this project within the capital and scheduled parameters we set out at restart. When complete, as well as adding to our market leadership position, G3 will also significantly increase our future cash flow generation capability.

As highlighted on the chart, if you look at a $400 methanol price and consider a range of gas prices between $3 and $5 in MMBtu, the uplift to our EBITDA or earnings is in the potential of $250 million to $325 million. Another point is the economics for G3 were based on delivering all of this product to Asian markets. As we see the opportunity to grow our sales position further in the Atlantic, it will only further add to the value of this project and make it even more attractive. It's a great project. We're really excited to see it advancing well and we know it's going to add to our global market leadership position.

Consistent with this global market leadership strategy that we've been pursuing, we've invested in growth through capacity additions over recent years. We executed the relocation of two of our assets from Chile to Geismar, to now be G1 and G2 and it enabled us to capitalize on the availability and the cost advantage of shale gas here in the U.S. We have successfully debottlenecked both those plants at low capital cost to add a further 200,000 tonnes of low-cost capital—low-cost capacity additions and we know our current G3 project will strengthen our asset portfolio.

As mentioned, we remain focused on securing economic gas to restart our idled assets, that being our 800,000-tonne plant in Trinidad, as well as our 500,000 tonne Waitara Valley plant in New Zealand. I think the ability to restart these plants represents the lowest capital cost investment to add back capacity. We're actively pursuing these restarts in both locations.

Also, and given the demand growth outlook for methanol and recognizing the multiyear timeframes it takes to develop and ultimately build a plant, we continue to evaluate options for future growth, which include options for brownfield expansion on a site like Medicine Hat or Geismar, as well as we are always monitoring and evaluating greenfield opportunities in other locations around the world. But I would say in that as we evaluate future growth options, it's clear that low carbon technology pathways are going to be a really important part of that future project evaluation.

Methanol is an important part of the transition to a low carbon economy. We know it's an essential chemical that goes into every day, multiple everyday products and it is a low carbon fuel. But we are aware that this is an emissions intensive industry and so we're focused on our opportunities to decrease carbon intensity at our existing sites and as we consider new projects. While methanol can be made from different feedstocks, different energy sources, we all know the resulting methanol is chemically the same and it can be used in the same end applications.

There are different production methods, including from renewable sources to produce green methanols but these are all at different stages of commercial and economic feasibility. Really, in terms of green methanol today, it's really a nascent industry making up a small amount of global production. If we consider the industry as roughly a 90 million tonne industry, coal production in China makes up about a third of that global production and it's mainly based from coal and has a CO_2 carbons emissions intensity of about 5 times greater than that of a conventional methanol natural gas-based plant.

If you consider the concept of an industry carbon curve, we believe our assets are really well positioned on that theoretical carbon curve and we have shared that G3 on that carbon curve would be one of the lowest carbon emission intensity methanol plants in the world. We're active in all the pathways to produce low carbon methanol. As mentioned, our feasibility would enable us to produce blue (audio interference). But I think, you know, if you take anything from this slide, I think what we're trying to outline is we have a great platform and options for transition to low carbon methanol production.

It's also useful to have some context when we talk about the pathways to low carbon and green methanol. While all are technically feasible, the options for green methanol are considerably higher cost to produce today and tend to be smaller in scale, often the 50,000 to 100,000 tonne plant. The recent IRENA studies highlight that as compared to the cost of conventional methanol, which they've indicated is in a range of $350 to $450 in terms of cost to produce for conventional methanol. The cost of the different green methanol production technologies can be two to five times higher or more costly to produce.

We look at the existing, conventional assets and we see their ability to lead the transition to low carbon. That is, the ability to convert to blue methanol from carbon capture and storage and even through to green methanol with renewable natural gas today. While technology improvements can scale benefits, you would expect them to emerge over the longer term. What's highlighted though is that there needs to be a premium, a willingness to pay or a press response that emerges to incentivize green methanol production.

As we continue on our sustainability path and as we've released in our sustainability report this year, I think our intent and direction is really clear through our commitments. We are part of the transition to a low carbon economy and our assets are important in this transition as they show a path to low carbon methanol. As Kevin highlighted, we're undertaking work throughout all our sites and teams to reduce our emissions. We believe in the value of methanol as a future carbon source, particularly low carbon fuel source, particularly in the marine fuel space. I think it's clear the energy transition will take a long time and it's going to require a lot of input from multiple stakeholders, and so we continue to work with our customers, the governments in the regions we operate in and around the world, technology providers as we evaluate opportunities in green methanol.

Maybe in summary, we are the industry leader in methanol, and we've got a focus on low-cost operational excellence and market leadership. For our global team members around the world, they're the ones that execute on our strategy every day and we have a depth of industry experience and knowledge which allows us not only to develop and build projects like G3 but also operate those plants efficiently, operate an integrated global supply chain and service our customers around the world globally and seamlessly. I think it's worth highlighting our team members are really key to our competitive advantage as well. We're excited about G3 and what it will add to our business. It's clear from the capital advantages that it will be also one of the lowest CO_2 emission intensity plants in the world and we look forward to bringing G3 on stream sometime next year.

Ian Cameron

Good afternoon. It's my job to tie some of this together by talking about the finances and how this impacts the financial performance of the company. I'm going to be talking a little bit about the financial strategy, how we approach our balance sheet, things like that, capital allocation, our cash generation capability, and then our approach to share and distribution. That's the way, that's going to be the focus of my discussion.

You know, first of all I'd say our financial strategy is informed by the industry structure, by our company's strategy and things like that, so the industry is growing. We're a leader in this industry. We like to grow. We want to add good, profitable capital projects to our portfolio over time. I think we've done a really good job of that.

Another thing that informs our strategy is cycles. We are a commodity with commodity cycles and the interesting thing about cycles is that you cannot always predict when they're going to happen and so you always have to be prepared to manage through business stress, recognizing that you cannot always foresee it. The third characteristic that informs our strategy is that we generate a lot of cash. We generate more cash than we can reinvest in the business and so we want to make sure that we have a good vehicle for returning cash to shareholders.

Let me just sort of talk a little bit about the practical ways that we think about that in terms of our balance sheet management. First of all, we think that the methanol price, the natural range for methanol price is $300 to $400 a tonne, so we structure our balance sheet around that price range. We target investment grade metrics and our primary metric that we target is based on debt to EBITDA and the low end of the investment grade rating is 3 times. We want to target meeting that 3 times in that price range.

We have foreshadowed for about a year now that we would like to lower that range. We would like to be able to meet the investment grade targets at $275 a tonne and over time our intention is to de-lever. Our next opportunity to de-lever is a bond that's coming due in 2024. It's a $300 million bond. Over the next little while our intention would be to repay that bond in some way through cash.

We have a focus on liquidity. Liquidity is a huge defensive mechanism and offensive mechanism for us. We target a minimum of $300 million of cash and we also have backup bank capacity. Today we have $300 million of normal bank operating capacity and then we also have a $300 million loan that's supported by the G3 project. We have $600 million of backup liquidity. You can see from the graph that we have ample liquidity.

Today at the end of the first quarter we had $1.1 billion of cash. We have $600 million, as I say, of backup liquidity and if you look that against our major capital project of Geismar 3, which you saw today, there's $675 million to go. We're in really good shape to complete this project with very little risk. We really feel our balance sheet is in really good shape.

The third aspect of our strategy is thinking about shareholder distributions. The thing about, for us, for shareholder distribution you have to take into account is that if you want to grow and when we do grow, it takes capital. Capital comes in big lumps. We also recognize that cycles come as well. The focus is really flexibility, flexibility, flexibility.

That is the same for our—the way we like to distribute cash. First of all, we like to have a base dividend that grows over time, but we want to ensure that we can pay that dividend at all points of the cycle. You will see that we set our dividend about a year ago and we took the opportunity last April to increase it. We will continue to grow the dividend over time.

The second vehicle that we use is a normal course issuer bid and we have had a long history of repurchasing a lot of shares. We think that the normal course issuer bid is a tremendous vehicle for

distributing cash to shareholders for our type of business where you have cycles, and you have big lumps of capital from time to time. We think that the normal course issuer provides a lot of flexibility so we can have a base dividend that we can say in all points of the cycle and the rest of the cash will come back in the form of share buybacks and the preferred vehicle for that is a normal course issuer bid. I would say that we are very—we have a lot of discipline around capital, and it starts with our strategy. When we have excess cash after meeting these parameters, we have a strong commitment to giving that money back to shareholders.

This is an illustration of our, how we've utilized our cash over the 10 year—the last 10 years and we call it a balanced approach. But what it shows is that we generate, first of all generate a lot of cash and that's even taking into account a couple down cycles. We generate a lot of cash and we have had a lot of history of returning excess cash. We have invested what we think is a balanced way, rebilling back into the business. That's including maintenance capital to sustain the business and primarily in this graph anyway, the two big projects G1 and G2, which you saw today which are excellent investments and really added to the cash generation capability of the company.

We're really pleased to have you here today and showcase our Geismar assets. We really think this is a foundational part of our asset portfolio. G1 and G2, as I've already mentioned, have been outstanding investments for the company and we're really excited about G3. I think you heard a lot about risk, and we've really had taken the opportunity to really de-risk G3 and the project is going really, really well. We're really looking forward for this project to come on stream. We already structurally generate a lot of cash but as you can see and Vanessa pointed out in her presentation, G3 represents a big step up in cash generation.

How do we think about some of our capital allocation priorities? Our first priority is always going to be to maintain the business, and that's making sure that our plants are reliable and safe, as Kevin and as capital a year on average. We want to meet our liquidity targets of the cash required to complete G3. We, as I've mentioned already, we very comfortably meet those liquidity targets today. We have said that we would like to de-lever a little bit and we think that taking out the $300 million bond that's coming due in 2024 with cash is smart and provides us lots of financial flexibility going forward.

Not a lot of new capacity and new capital required ex G3 for the next few years, so that means that all excess cash after thinking about including the funding of G3 and our debt repayment will come over the next couple years. There's going to be a lot of cash to distribute to shareholders. I just thought I'd maybe give you just a little bit of a look of that and how that might look over the next little while. This is a pro forma cash forecast over the period from March 31 to the end of '24 and it's presented under two price scenarios.

It's presented under a $400 price scenario and a $350 price scenario, and it takes into account the capital cost to complete G3, maintenance capital, debt service, all those good things, and also you'll notice that it takes into account also our intention to repay the bond that's due 2024. You can see under a wide range of price assumptions there is still a lot of cash that's available for distribution to shareholders. We feel really, really good in terms of where we are in our balance sheet and our ability to provide really good returns to the shareholders over the next few years.

Maybe just to summarize, it's all about flexibility. We want to be able to manage cycles. We want to be able to grow and we want to be able to provide a good vehicle for returning cash to shareholders. We have really, we have our cash generation capability is excellent, really good cash generation capability and very disciplined around capital. We are committed and have a long history of returning all excess cash to shareholders.

I'm going to stop there and we're now going to continue on and have a Q&A session.

John Floren

Just to wrap up before we get into the Q&A, we hopefully demonstrated that our leadership position and the value of that leadership position. Positive medium term to longer term growth outlook and not a lot of new supply coning on. Growing cash flow and capability with a track record of disciplined capital allocation, returning cash to shareholders and really well positioned as we transition to a low carbon economy.

With that, I'll stop and open to take your questions. Joel.

Joel Jackson

Hi. Joel. Joel Jackson at BMO. I have two questions. First, you gave a bit of color on the 14 million tonnes of demand growth over the next five years. I'm guessing the numbers you didn't mention was just the kind of growth in GDP and formaldehyde, acetic acid. Can you just clearly go through exactly how the 14 million tonnes of demand growth are coming from different buckets?

Then the second question is, on G3, it seemed like the team is quite excited about what's going on here. It's clear all the parts and steel and pipes that are stockpiled everywhere here. Can you give us an idea of what is the best-case scenario? There's no hurricanes and people can somehow withstand the ridiculous heat here. What is the best-case scenario that we could be past the pre-commissioning, into the commissioning phase? Is that October? Is that September? That would be helpful. Thanks.

John Floren

On the demand growth, if we take half the market, let's say it's 44 million tonnes around today, that is related to GDP. We've got that growing at around 3%. Those numbers are IHS numbers, not our numbers. Our numbers would be similar, likely different in the categories. That's a 3%. If you had a view of no growth in that half of the market, it's about 1.2 million tonnes that wouldn't grow. I think Rich illustrated that we need new supply to come on into the market or at higher operating rates. Today, the cost curve is in that $360 to $390 with a lot of production there, based on the high energy environment. If we did see less demand growth because of a recession or a prolonged recession, it's about 1.2 million tonnes, yes, a year.

Then if we look at the MTO space, we have one new plant coming on this year, 1.8 million tonnes of demand. We expect the industry operating rates, as Rich mentioned, to be in the 85%, 90%, which is historically what they've been. I would add 1.8 million tonnes into the MTO space and then the rest of the balance would be in the fuel space, and that's driven in kilns in China and (inaudible) in China as well. It's a combination. The demand, we're pretty conservative on the energy space and then when these demand forecasts were done, I think we were in a different energy environment. High energy environment is certainly good for energy demand as well.

As far as the project itself, we have a detailed project review coming up in mid-July and I'll be able to update the entire investment community on late July call with the capital cost estimate, as well as the schedule.

Yes, Kenny?

Kenny Abrams

For natural gas availability in Trinidad, maybe I'll ask Ian to—he was just there and just had the complete review with the government, so maybe just give us the color there, Ian please.

Ian Cameron

Kenny, just for background, the way the ELT works is that we all have functional responsibilities, but we also have sponsorship responsibilities for our operations around the world. My sponsorship is the Trinidad operation and very proud of the organization that the Atlas plant has been running for the last year. It's run incredibly good rates. One hundred percent reliability and the safety record has been excellent.

The challenge in Trinidad is gas. I was down in Trinidad, I don't know, 10 or 12 days ago. There was a big energy conference there in Trinidad and it was all about the future. Just sort of as background, Trinidad is a country that's heavily reliant on oil and gas and chemicals and LNG. It's a big part of their economy and as a big picture concept, the government is very incentivized to make sure that all these operations are sustainable over the next number of years. You can really feel that energy that that's happening.

When I was in Trinidad last week I met the most senior people in government and NGC and also with some of the CEOs of the upstream. I would say all of them are very committed to future investment and continue to ensure that the assets, all the assets in Trinidad are renewable. That's the goal.

The challenge is timing. There's a lot of contractual relationships that are converging about the same time. The upstream contracts are expiring in the next year or two and the contracts of the LNG producers are expiring in the next year or two, same with most of the chemical operations as well. There's a lot of things that need to happen in order for the gas contractual regime to work quickly. That's the challenge but as I say, the government is very incentivized and the upstream is very incentivized to ensure that somehow we figure out a way that we share the economic rent that's available.

We think it's available between the upstream, NGC, the government, and the downstream chemical. We're cautiously optimistic that we're going to be successful and that includes Titan but it's a bit of a journey.

John Floren

Yes, and I would like to emphasize the economics of the gas will be different than the economics we have traditionally enjoyed with Titan. We pay a little bit more for the gas, but we want to remain, you know, to sign a contract, take-or-pay contract and to invest the tens of millions of dollars we have to do to get the plant restarted, we'd want to be cash positive through the cycle. That's our goal.

We won't sign a contract that assures losses during the bottom end of the cycle and that's part of the challenge that we're having with the government as the government renegotiates with the upstream. They certainly know the downstream's position, not only ours but our competitors, the ammonia guys and the LNG. It's just another part of the question.

Vanessa, I'll ask you to just give us an update what's going on in New Zealand with the gas there and what's going on with the high energy complex there as well.

Vanessa James

In New Zealand, we idled our Waitara Valley plant back at the end of 2019 and that was as a result of some poor performing fields at the time from the gas suppliers. A lot of reserves issue in New Zealand. They always have a reserves to production ratio that we would consider just keep moving out as they continue to explore.

What we've seen over the last few months is more drilling activity in New Zealand. It's a scheduled program and so they're starting to see those results. As we come through the second half of the year we're expecting to see more gas flow into the two plants and we're continuing to have those conversations with gas suppliers around the restart of the Waitara Valley, which is going to take time from the capital to be deployed to return the facilities, as well as return some staff.

But we're still confident in the reserves outlook in New Zealand. We've gone through these challenges before in New Zealand.

John Floren

In context about New Zealand, we're half the gas rich in liquids, so when you get $120 oil they're very incentivized to monetize the liquids at a high methanol price like we're experiencing. Today we're paying a really good price for gas. It's a private market. It's not government. It's private owners and they're very interested in drilling and developing those reserves.

Like Vanessa said, it's not a reserves issue. It's developing the reserves and they've tended to develop the reserves as we and the country needed it. I think the economics today are so, it's in such a good place that we're going to see gas be developed. They need us as much as we need them because they want to get the liquids and monetize the gas.

But I would remind everybody though that that plant was end-of-life when we did shut it down. We had planned a fairly significant investment and turnaround and that would have to be done. We would have to, again, sign a contract that allowed us to—a five-year period, just to take an example, to recoup the capital that we'd be putting into that plant. I think we're going to hear—see a lot more about what the drilling programs produce over the next one to two quarters, and certainly continue to engage with the gas suppliers about getting a five-plus year contract.

Kenny Abrams

Great. Just back to Trinidad, the Atlas contract, I believe it expires in 2024. Is that going to be the same negotiation with the government as Titan, or are those really two separate discussions?

John Floren

No, I think it's a similar discussion, because the timing is such that a lot's going to happen in this next two years, so we'd like to finalize gas for Atlas post-'24 at the same time we're negotiating gas for Titan.

Kenny Abrams

Then just one more, back to Rich. You talked about another MTO plant coming online in the second half of the year. What's coming on in '23 and '24, and if not much, why not?

John Floren

Yes, so maybe I'll start, and Rich, you can add.

There was a second wave plan, then, of MTO plants. The first wave is coming to a conclusion here with the Bohi (phon) plant. Obviously, when we had the oil collapse in 2016, most of the second wave was canceled in favor of naphtha crackers, because naphtha, obviously, trades at a price of ratio to oil. Obviously, that's changed now, and naphtha's back to 800, 900, so depending on what your outlook is for

oil and naphtha, and even in today's olefins markets, the naphtha crackers are marginal and some of them have reduced rates, so there is an opportunity now to think about more MTO or the second wave. Probably have to see a high oil environment for another couple of quarters before we'd see that, but I'll remind you there are two plants in China that are idle; Fund (phon), and what was the other one, Rich? Connell (phon). Connell. Those are idle, and in this environment restarting those plants is certainly a lot more attractive than let's say in a $60 oil environment in relative or $500 naphtha.

Anything you want to add to that, Rich?

Rich Sumner

No.

John Floren

Jacob?

Jacob Bout

Yes, just a question on the capital cost for the restart of the two plants, and then maybe walk through—there's a couple of debottlenecking opportunities you talked about. One was the Geismar and I forget what the other one was, what the cost for that would be as well.

John Floren

Yes, so the Titan plant, to restart, it's people, and maybe $10 million, in that order of magnitude. The Waitara Valley, I mean, it's more $50 million or $100 million, as it's come to end-of-life, and that's the order of magnitude. As far as debottlenecking opportunities, I don't see us having any, Kevin, around the world at this point. Certainly, getting the high CO_2 gas in New Zealand would allow us to operate at higher rates, and some of the gas that has been recently found in New Zealand or in the drilling programs is high CO_2, and we're really the only offtaker for that kind of gas, so I think getting—the other area we didn't talk about is Chile, and the developments there on the gas side have been really, really good in the Dorado Riquelme field where we have a 50% ownership. Those wells are two, three times more productive than the Arenal field where we're getting most of our gas. We're running the one plant during their winter at 70-plus rates, which is all in Chile gas, so I think that's really important to understand, and then Argentina continues to develop the Noican (phon) field, and again, in high-energy environments like today, we would expect that to continue their investing in pipe, etc., and there's going to be more drilling in the Southern Cone on the Argentinean side, which will also help—be helpful, so I think the guidance we're giving is still the same; two plant operation during their summer time and a one plant operation during the winter time, with upside over the coming years based on both Chile and Argentina gas.

Jacob Bout

The other question I had was just on the European market; obviously, loss of it in parts with the war going on over there. You said it was roughly about 20% for your end market. What are your thoughts there? Are there any opportunities that present themselves there given the high natural gas environment, or is it kind of status quo?

John Floren

Yes, so the Dutch plants are down, and you would have seen natural gas prices spike up here in the last few days in Europe as well, so we don't see them coming back in this environment. Russia's an exporter

of about 1.6 million tonnes of methanol to Western Europe. Today, most Western European companies, consumers have said pretty emphatically they don't want to deal with Russian methanol anymore, and until they have an alternative, they're going to try and run their plants. I think it does create a significant opportunity for us. We modeled all of the Geismar 3 molecules going to Asia, and in today's high fuel environment, that's about $100 a tonne in freight, so if we were able to move a bunch of that volume to Europe, that's about $50 a tonne in freight in today's energy market, so it makes the economics, which are already terrific going to Asia, even that much better, and certainly, our preference would be to grow our market share in Europe if the Russians aren't able to supply, because we'd be the natural supplier to Europe.

The other complication or opportunity, I mean, Equinor is a producer of methanol in Norway. They have the opportunity too to move that gas into the European market if they choose. It'll be interesting what we learn about the Russian supply, as well as intentions of somebody like Equinor going forward, so I think this is a very good opportunity for us to increase our market share in Europe and even further help with the balances on the Atlantic and the Pacific basins.

Male Speaker

You mentioned the two idle MTO plants in China. I was just wondering what that represents in terms of metric tons.

John Floren

Rich?

Rich Sumner

That would be about 2 million to 3 million tonnes operating per year.

Male Speaker

How fast could they—I mean, I don't know if you know the answer, how fast could they bring up that kind of line? I mean, is it something that could affect 2023?

Rich Sumner

It'd be difficult to say because they've been shut down for, I would say, over the last two or three years, so it would—it's difficult to say how long that would take and what kind of capital that would be needed to restart, but we wouldn't think it would take too long, so…

John Floren

A couple of quarters. I mean, they built them in two years, so I mean, to restart them, probably at max, a couple of quarters. When they decide to do something, it goes pretty fast.

Nelson Ng

It's Nelson Ng from RBC Capital Markets. I might be getting ahead of myself, but you guys talked about the Medicine Hat brownfield opportunity. Can you just remind us about that opportunity? Is there enough domestic demand? What are some of the other considerations you need to think about there?

John Floren

Yes, so we've been looking at that site for a while, and it was a choice between that site and Geismar 3 when we made that decision, so I think the conditions why we chose here versus Medicine Hat haven't changed. They maybe got a little more difficult, is what I would say, so what are the challenges? You're right; it's not enough market, so it would have to be all exported through the West Coast to Asia. Obviously, if Europe develops, there might be an opportunity to move some the other way, but it would have to be all exported. The Canadian government has been pretty clear on its wants to move the carbon tax up to $150 a tonne range, and if we are producing 0.4 carbon per tonne of methanol, you can—the economics get quite squeezed.

The other issue is the rail transportation. I don't know if you follow the rail markets in Western Canada but they've been quite horrible as far as service and getting product out of Western Canada to U.S. markets and overseas markets, so there's a monopoly situation, and how could you ever assure yourself that you're going to move a million-plus tonnes to Asia on the current rail system, so that's something that we'd have to solve. Then getting a terminal built on the west coast of Canada and the United States is in that hard-to-do basket where nobody seems to want any of these kinds of things in their backyard. Having said that, there might be an opportunity up in the Prince Rupert area of Kitimat where there is activity today to do that, so those are some of the issues that we'd be dealing with.

On the positive side, it's a great gas market. We expect that gas market to continue to be advantaged over even Henry Hub. As well, we've got the land there. We've got a great operation. We've got a great team, so it would be—the staff that were a really good group of people. We're well-known in the marketplace. We have lots of good connections in the community, so from an operations point of view, it would be a great place to operate, but there's some hair that we have to deal with, and so those are some of the things that we think about, Nelson.

Female Speaker

We have a question from the webcast. Historically, Methanex has had a 60/40 split of organic investments and capital returns to shareholders. Do you see that mix changing after G3 starts up?

John Floren

Yes, it will change, because we won't be having any other capital projects in the short term. Even if we decide to do a green project, these are small in nature. Like Vanessa said, 50,000 to 100,000 tonnes in capital costs is in the—not anywhere close to 1.3 billion. I think also what we've learned through G3, and it's quite a significant capital outlay every time we want to build a project of scale, so I think our next one, we'd certainly be more difficult to do it without a partner. I never say never, but certainly, having a partner to help manage the risk that you take over a three, four-year period when you build. I think the slides that I showed and Ian showed, once G3 is complete here in less than 18 months, at any range of methanol prices we're going to have a lot of cash to share with our shareholder base and give back.

We're not going to hoard the cash. We're not going to diversify into other industries. If we don't have projects that we can execute along with the market growth, and who knows if we're going to go into recession for how long and how deep, and if the market's not growing, we're not going to look to grow, and we'll be focused on getting our idle assets restarted. That's going to be our 100% focus, and that'll—if we get Chile back to full rates, and Waitara Valley and Titan up, that's another two million tons, so that's for just a fraction of the capital. We're going to have a lot of cash to distribute, and it'll probably be more in the 60/40 or probably 70/30, because it would just be our maintenance capital.

Edward Brucker

It's Ed Brucker from Barclays. You mentioned that you wanted to keep investment grade-like credit metrics through the cycle; it seems like through—at lower methanol prices as well, so I just wanted to get your thoughts on maybe getting back to IG ratings, if that's a goal for you, or you just want to run the business with those IG ratings.

John Floren

Yes, we want to target the metrics, so that's 3:1, as Ian mentioned, at $275/MT instead of $300/MT. We've seen below $300/MT pricing three times since 2008, so I think it's prudent to lower our debts and target that $275/MT instead of $300/MT. That's about $300 million less debt. Whether we ever get back to investment-grade, I think it will be difficult because of the volatility that we've seen in our industry and the fact that we're a single product company. When we talk to the rating agencies, it's difficult for them to see us as an investment-grade. Whether we ever get there or not I guess it's less important than having our own internal targets of making sure we, as Ian likes to say, bullet proof the balance sheet for a down cycle.

Ian, anything you wanted to add there?

Ian Cameron

John, you captured it well. We can't control whether we're going to get an investment-grade rating or not, but we want to do what's right for shareholders and our bondholders, and we think it smart to run this place very conservatively, and have lots and lots of flexibility and we're going to run the business that way. I think that's the most important point as I think about it.

Steve Hansen

John, just thinking about the Maritime opportunity longer term, it's finally emerging, which is great to see, but from the shipowner standpoint, one of the concerns has been access to long-term supply or consistent supply that are already available in the other markets, of course. What can you do to help facilitate that growth or get more shipowners on board? Can you offer longer-term supply agreements? Would you enter into those, or would they be willing to entertain them? I'm just trying to get a context for how you could help maybe accelerate the market growth.

John Floren

Yes. In the current environment, Waterfront Shipping's a really good customer of ours that are now running all of our ships that can run on methanol because at current methanol prices versus the marine gas oil, it's a total advantage today to run on methanol. We'd certainly entertain long-term contracts with shipowners to secure supply. That was a barrier for them to enter. That has not been a barrier, Steve. We haven't, to my knowledge, Rich, had any—or shipping, call it, companies say they're not going to do this until they get a secure supply, and I think many of them are thinking the pathway to carbon-free fuel is through methanol as well.

Maersk has been very public with their willingness to pay for green methanol. I think Vanessa illustrated the numbers today for green methanol, and we certainly haven't signed a contract with Maersk yet at those kinds of numbers, and I'm not aware of anybody else signing a contract either, so I think it will become a bigger issue if the supply/demand balance that we present continues to be quite tight and you get more shipping companies like last week, another one for another 300,000 tons. I always said when we converted the first engine on the standard ferry years ago and people thought I was crazy, maybe I am, but I thought it was a good opportunity to improve methanol demand. That proved to be quite successful, and then when we took the plunge ourselves in mid-decade to build our own ships with this

dual fuel capability, I thought it would be a slow adoption and a second half of the decade demand driver, and that seems to be what it's looking like.

The total potential here is if every ship was to convert to methanol, which is not going to happen, but it's a 500 million tonne potential market, so we don't need much penetration, and I'll just re-emphasize, this is a new built market. Retrofitting is very expensive. I mean, that's what we did with Stena just to prove out that the Wärtsilä engine was the 4-stroke on the faster ferries worked, and then we worked with MAN to prove it out on the 2-stroke engines, and we're—our market development teams have many projects with cruise ships, with fishing vessels, with tugs and all different types of vessels around the world, so really exciting to see the other engine makers like Caterpillar, etc., getting into the production of the engines, because that's a bit of a bottleneck, so I think this is going to be a key driver of demand growth for our product for the next 10 years.

Steve Hansen

Do you think there's any resistance on behalf of those shipowners to use, I'll just call it grey methanol or blue methanol in the interim, and it astounds me, most of them are sort of making the conversion step because they believe there's a path to green methanol over 10 years or whatever the timeframe might be, but I think as you've described, the economics are pretty terrible still at this point, so is there any resistance, I guess, to use the traditional methanol?

John Floren

Well, they have to make decisions today as they're replacing their ships, and they're making a decision for 15 years at minimum. I mean, if you're an oil major, you don't have a ship that's more than 15 years old, but many carry on beyond 15 years and can be 20, 25 years, so they're making decisions today that—they also like this dual fuel (inaudible) regulations allow to run MGO or methanol depending on the relative economics, but as the IMO specifications become tighter and tighter things (inaudible) matter, MgO goes away as an option, so I think they're not sure exactly where everything's going to end up on the regulation side, and if they can make a choice methanol with a green pathway and flexibility, that's why we're seeing quite a bit of adoption now, and it's been proven out.

I mean, we've proved it out in the engines, and the biggest interesting thing, it's not—the engine itself is exactly the same. It's the injector and the fuel delivery system that's different for the two products, so having solved all those issues—I won't get into the long list, but certainly more and more interest. There's other competing products as well, but I remember promoting this early on, LNG was going to be the be-all and the—of the fuels for ships, and certainly with not just the economics of LNG, but the handling and the storing and the bunkering, proving to be a lot more complicated and difficult than maybe first thought.

Steve Hansen

Just one last one, if I may, is just on the G3 gas. I think you described sort of in broad strokes what the gas position is going to be domestically hedged, but as we contemplate start-up for the first year or two, '24 really, '25, I mean, how much of that gas has been secured so far in sort of those initial years and sort of at what rough threshold; the gas position and at what price?

John Floren

Well, we don't reveal the price, but I think we gave you a hint; our delivered cash cost target to Asia in that $200 range. You can do the math backwards on the gas price. Like I said, we have 65% hedged, and that's our goal is to have 65% of our North American operations hedged. You can do that. There's a liquid market out about five years. Beyond that, it gets a little tougher, and we've been layering in hedges all

along, and call it lucky or whatever, I mean, next year, we're 85% hedged, because that's some of the gas we hedged in years ago when we thought G3 was going to be starting up now before the care and maintenance period, so certainly in this market, we're happy to have that extra gas, but 65% is what you should be thinking, and that allows us to have minimum operating rates at our production facilities, and if markets get to a situation where it doesn't make economic sense to run at $11 gas, whatever it might be, but we look at that all the time.

We understand our competitors really aren't that hedged either, Steve, so we kind of think there's a natural methanol price hedge to that. If it gets really ugly, that it doesn't make economic sense to make methanol at high gas prices, then those producers will be reducing production as well, which will further tighten markets, and we have seen some of our competitors lower operating rates in this environment.

Female Speaker

We have another question from the webcast.

Could you elaborate more on brownfield expansion opportunities in Medicine Hat and Geismar, specifically around timing, capacity, and anticipated cost?

John Floren

Yes, so we have the opportunity to look at a Geismar 4. We have the land. I really worry about concentration risk, so I don't know if I'm ever going to get over that hurdle. I think what I'd rather do here, but I never say never to anything, is it would be great to attract a couple of large customers to the site and have pipeline customers here, but certainly, this is a great place to do business and a great place to build things, and just the concentration risk of adding another 1.5 million tonnes here that—I don't know how we could get comfortable with that. I already went through the long list of issues at Medicine Hat, and I think G3, we would not be able to replicate those capital costs with a new plant whether it be a brownfield; certainly not greenfield.

I think you're talking and we've been speaking, it's at least probably in the order of magnitude of $1,000 a ton, and that's before the inflationary environment that we're currently experiencing, so that means you'd have to have, to get a double-digit return, $3 to $4 gas and a $400 methanol price for 25 years, and I think that seems to be in the hard-to-do basket as well right now, so I don't anticipate us having another significant capital project more towards the end of the decade at the earliest, because I think what we'd like to do is really work hard to get our idle assets restarted at a fraction of the capital cost, and we have to watch how the market develops and how it grows, and if we are headed to recession and zero or less growth, then we have to consider that as well.

Male Speaker

Just back to the maritime market, can you talk about what the clean fuel alternatives are to methanol? I mean, I think ammonia's probably the biggest one. Are there others, and is there flexibility between ammonia and methanol, or is it just—is there room for both of those to be involved?

Rich Sumner

Yes, sure. Yes, so you're right. Ammonia's being looked at. Hydrogen also, and initially, it was also—LNG ships were also—had a big uptake on LNG ships. With LNG, you can only get a certain amount of the way there on CO_2 reduction before you have to introduce bio LNG, and there's other issues around LNG with methane slip and other things that the shipping industry's quite concerned about. Maersk has been very public about that issue.

On dual capability between ammonia and methanol, that—those would be—are completely different technologies. Ammonia's being developed, but it's not there yet today, so they're quite a far ways behind on the actual ammonia technology in comparison to methanol, and then ammonia has—both ammonia and hydrogen have their own challenges in relation to hydrogen has to be cryogenic, it's difficult to deliver. The volume metric energy intensity for hydrogen is a lot less than methanol.

On the ammonia side, you've got, obviously, toxicity issues, and also there's still NOx issues when it comes to burning ammonia, so it's not a perfect solution developed on those applications yet, but those are the ones that are being looked at.

John Floren

Yes, and I think methanol is really available around the world, so bunkering is much easier. It looks like water, handles like water, and if you were to spill some, you might kill a few fish within a few hundred feet of the ship, but you're not going to have a major type spill, and ammonia has properties we all know that can—that are different, and hydrogen is hydrogen, so—but those are the competing ones as of today.

Go ahead.

Male Speaker

We just talked a little bit about the current market. We've got natural gas in the U.S. at—I don't know where it is today, $7, $8, $9, so the cost to produce methanol in the U.S if you are using spot gas is, I don't know what, $3.30, $3.50 depending on if you're at $9 gas. Is that the marginal cost of production right now given that there's no gas-based operations running in Europe?

John Floren

That would be the case today. I mean China's at 390. We mentioned the cost curve in China is 360 to 390 based on 1200RMB coal. I don't know if you read this morning, Australia is short of energy because they can't get enough coal to run their coal plants, so it seems to be a global issue, so I think it's in 360 to 400 area, but you've got to add freight. It's not just gas, so the marginal molecules from the United States go to Asia. I already mentioned it's $100 freight today with the price that you're paying for fuel, so it's really marginal, because the price in China today is 350, 360-ish for imported product, so the economics are quite challenging today if you're going (inaudible) any freight if you're not hedged on your gas.

Male Speaker

How does the gas price in the U.S. impact Trinidad and kind of just how they think about their gas price there for industrial consumers?

John Floren

Historically, the goal of the Trinidad government was to link their gas to Henry Hub, and that's when Henry Hub was trading at $10-plus. We all saw what happened with the shale and it went to $2.50 it seemed for a long time. Well, they changed that strategy, no longer wanting to be linked, so I think the strategy today is to, like Ian said, have the upstream, the government, and the downstream all provide and make some returns, and they're trying to work out a way how to do that, so I think I said earlier the gas price we'll pay in the future there is not going to be what it has been (audio interference) cycle so that we don't have to have pick or pay gas and the bottom end of the cycle is quite challenging, but they have

gas. I mean, there's a willingness to develop in Trinidad. The big majors are spending money, and it's just now how do we get the economics right? There, we have, I guess, a natural hedge as well, because our largest—one of our largest competitors is four—have four plants there. They're going to face the same challenges that we do, as the ammonia players are, as the others are.

Male Speaker

As we think about the possibility of a recession coming up, how are you thinking about preparing for that possible outcome? How do you think about methanol demand, and how do you think about pricing in that environment?

John Floren

It depends on how deep, and if it's a mild recession, it's probably not going to be much impact unless we get an oil collapse again, which would impact the cost curve, so if you believe in higher energy prices are here for a period, the cost curve will be in that $360/MT to $390/MT, with a lot of production at that level, so I think you'd have to see 7 million or 8 million tonnes of demand go away before we move down on that cost curve. That would be around 10%, and I think when we've seen prices go below $300/MT in the past, they were in 1-in-100 year events, but we've had three of them in 15 years where we saw a 10% to 15% demand dip kind of overnight because of the energy collapse which impacted DME and MTP because the financial crisis froze everything, and most recently, COVID when everything stopped. I guess you'd have to have an event like that, I think, to move down significantly on the cost curve today, or oil go back to $40, $50.

Male Speaker

Given this very fragile economic environment we're in right now, what's your biggest concern?

John Floren

Hurting somebody is always my biggest concern, or seriously hurting somebody or having a fatality. That's the number one concern I always have.

Getting this project done safely on time, on budget is 100% focus. I think we have the cash—as you know, we have the cash on the balance sheet to complete it and we have other cash, and so really, the main concerns in this environment, as all environments is safety and hurting somebody significantly.

I think you've seen the project. This is the best project we've ever run. This is the best team and it's the largest team we have ever had on a project. They're doing an outstanding job from day one. This doesn't happen because of work in the last year. It started five, six years ago when we built that team and built the way we going to build this plant, and I was around as the CEO for G1 and G2, and they were tremendously successful projects, but they pale in comparison to what we've done on this one. I'm really not concerned about completing this on time and on budget at all, and I think you saw that today.

Female Speaker

Another question from the webcast. How does Management look at M&A opportunities out there?

John Floren

Yes, so we look at the (audio interference), you look at the 100-plus methanol plants in the world, most of them are not for sale or would be saleable because they're state-owned or they're in China or they're—

have some other integration situation, but there are some plants—I think the (inaudible) or the OCI plants would—OCI has been trying to sell their methanol business for quite some time, and when you do sit down and have a conversation about M&A or activity related to acquisitions, the price becomes in the $1,500 to $1,700 a tonne for installed capacity discussion, and we're trading at $600, $700, whatever it is, and I can't imagine that be well embraced by shareholders, so I think there could be opportunities now as we come in—if it is a severe recession and a lot of—some of our competitors are really leveraged and have to renegotiate, so there may be opportunities, but I put it in the low-probability basket for mergers and acquisitions, and I think as long as the industry's growing, picking mergers and maybe shutting capacity is not the strategy that we need to do like we did in 2000. Certainly, if we're going to incentivize shipping and have enough methanol to do some of these other new applications, we need more methanol, not less, so always consider things, but they have to make economic sense.

Male Speaker

John, could you explain the confidence in the cost curve, because I think you said today it costs more to make methanol than the sales price in China. I think you said some European plants are out, so why isn't the price better for methanol today?

John Floren

Sentiment, I would say. There's a lot of sentiment that—and it's been there for some time now because of prices rolling over and that the energy complex will retreat. I think the more—as it goes along, that that's proving to be not accurate. The imported material into China is right around that cost curve, so we've seen operating rates not rebound. In China, during the winter time, we see lower operating rates, and as they come out of winter, you see higher operating rates, and we've seen a slight increase, but not to the extent we would have seen in previous years.

We still see inventories being quite skinny through the chain as well, and we've just come out of a long-term—or another long-term COVID shutdown in parts of China, so that's now behind us and that's spurring on some new demand, so there's been a few things like that I think in the short term that have impacted some of the demand for methanol, but yes, the product or the market will always be balanced. It's just a matter at what price, so if you said I could have the current price for the next 10 years, I'd be a very happy person, so it's really hard to predict where energy's going to go, and certainly, LNG prices and coal prices don't seem to be—going to go down in the short term, but if you get a severe recession, that can change overnight as well, so I think that's why we tend to be quite cautious in this kind of environment, but I have to go by the numbers today, and I know that doesn't mean it's going to not be different in the future, but we're not seeing any impact on our demand from our customers.

I know Rich and Vanessa were just down at the ACC meetings, and their demand's still quite good, although there's—they are nervous too about what kind of recession, if there's a recession, how deep, etc., so I think taking a cautious approach here today is the right thing to do.

Female Speaker

We have another question from the webcast.

Could you give us some more details around the carbon capture initiatives and timeline?

John Floren

Kevin, can I ask you to...

Kevin Henderson

Yes, right now we're just analyzing different technologies. We're doing a little bit of work on that, and probably I would expect by end of the year, we'd have a little bit more color around cost and what kind of technology we would use.

John Floren

How about lead time? If we went forward and made an investment in carbon capture, how long do you think to get that up and running?

Kevin Henderson

Relatively large project and it's going to be integrated to existing, so I think you're looking at probably three years (audio interference)

John Floren

Other questions?

Okay, well, thanks very much. We really appreciate you taking the time out of your busy schedules to come down to Geismar. I know it's not a great—an easy place to get to, but it's a great place to see, and I'm—I think seeing the project hopefully has alleviated some of the fears in the market about us being late or over budget. Certainly, I think Paul told me that he—on his bus, he was schooling the analysts about not writing things about supply chain issues impacting this project, so Paul's pretty passionate, and I didn't tell him to say that, but that's Paul. He says I read that. I don't know where that's coming from, so hopefully that fear has been alleviated, and we really appreciate it. I know it's a lot of uncertain times. Markets are in a turmoil right now, and for you to take the time to come down and spend last night with us and all—most of the day today, certainly, I appreciate that commitment and the interest in our company and look forward to continuing our dialogue as markets develop and as things change in ways that we probably can't anticipate today, so safe travels home, and I'm certainly back on the road again. I'm in New York on Wednesday and Toronto on Thursday meeting with the shareholders and potential shareholders. Look forward to catching up with everybody as we go forward here, so thanks very much.