# Argus report sample

MTBE and ETBE Analytics

November 2024

# Executive Summary — MTBE and ETBE Analytics, 2019 – 2033 Argus, a leader in the petrochemical consulting industry, is providing an analysis and a lone-term fundamental forecast in the Argus MTBE Anaptics 2024. Methy tetrality butly other (MTBE) demand in 2023 had a small decrease versus 2022 as lover demand was seen in China. This study includes an in-depth review of the factors underpinning today: MTBE fundation, and a consulting their units at high rates and export excess MTBE supplies. Chinase MTBE producers were incentivized to run units at high rates and export excess MTBE supplies. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a spike in high octane. The combination of Covid restrictions in Asia and the Bussia-Utraine conflict in 2022 caused a

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# **About this report**

Argus MTBE and ETBE Analytics is a datadriven evaluation of supply-demand fundamentals forecasts for MTBE and ETBE, published twice a year.

The service includes a 10-year forecast and five-year history covering balances and capacities, organized by country and region.

In this sample, we share insights from the Middle East and Northeast Asia.

Subscribers receive a PowerPoint PDF written by our experts plus the accompanying Excel data files.

To find out more, click here to get in touch.



# **Key features**



10-year forecast and a five-year history Covering capacities, supply and demand, trade,, by country and region, published twice a year.



Detailed report
In an easy-to-read PowerPoint format
focusing on new plant capacities, growth
rates in relevant markets, and regulatory
developments.



Regional insight Covering capacities and operating rates based on global trade and economics.



Downloadable datasets
With data on supply, demand, capacities, operating rates and trade balances, by country and region.

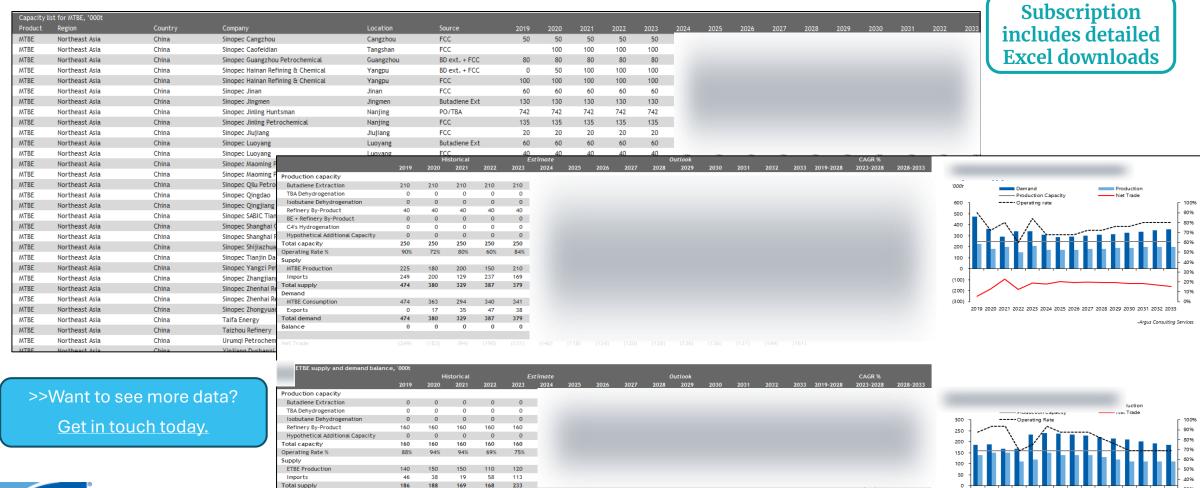


Access to specialists
Speak to the experts behind Argus' longterm analytics forecast services.



# **Associated data**

## Capacity by feedstock; global supply, demand and trade by country



Country Dashboard Country Top 10 Regional Net Trade Stat Analysis World Northeast Asia China

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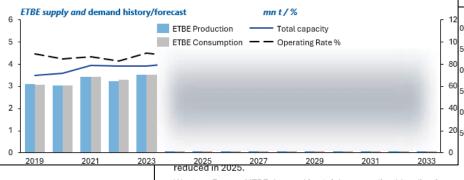
# MTBE Analytics Executive Summary

# November 2024 update of 10-year global MTBE and ETBE supply, demand and trade

Argus, a leader in the petrochemical consulting industry, is providing an analysis and a long-term fundamental forecast in the Argus MTBE Analytics 2024. Methyl tertiary butyl ether (MTBE) demand in 2023 had a small decrease versus 2022 as lower demand was seen in China.

- This study includes an in-depth review of the factors underpinning today's MTBE industry, as well as future market 30 direction to 2033. Global supply and demand of the major regions and 60 countries either using and/or consuming ethers 20 support the analysis.
- Chinese MTBE producers were incentivized to run units at high rates and export excess MTBE supplies.
- Higher amounts of electric vehicles and higher biofuel usage expected to affect MTBE and ETBE demand during second half of the decade.
- The combination of Covid restrictions in Asia and the Russia-Ukraine conflict in 2022 caused a spike in high octane component blending but also affected MTBE production in Europe. As a result, more Middle East and Asia MTBE was exported to Europe. This continued into 2024.
- Ethanol, which takes market share from MTBE, has been on the rise since 2006 and more countries are expected to adopt ethanol in the future. However, the biofuels market is also expected to see lower growth due to electrical vehicle adoption.







- Western Europe MTBE demand is at risk as gasoline blending for exports to Africa will be reduced after Nigeria sees gasoline production from Dangote's 650,000 b/d refinery.
- Growing global MTBE capacity will alter trade flows, leaving exporters looking for alternative outlets. The biggest production increase in 2023 was LyondellBasell's new MTBE/ETBE unit from the US, and the restart of Malaysia's It Pengerang MTBE unit in late 2022. China has an additional 3.5mn t of capacity expected during the next few years.
- ETBE demand sees short term growth as more countries in Europe meet their biofuel mandates, but In the longer term ETBE demand expected to fall with gasoline due to electronic vehicles.

### MTBE/ETBE New Capacity Additions mnt/yr

Country	Company	Start Year	000 T	000 BBL
China	Ineos Sinopec Tianjin Nangang	2024		
China	Anging Taiheng	2024		
Algeria	Sonatrach	2025		
China	Yulongdao Refining & Petrochemical	2025		
China	Jilin Petrochemical	2025		
China	CNOOC Ningbo Daxie	2025		
China	Befar Group	2025		
Kazakhstan	KazMunayGas	2025		
China	CNOOC Shell Petrochemicals	2026		
China	Sinopec Anging	2026		
China	Guangdong Yuxin	2026		
Ukraine	Ukrgasdobycha	2027		
Ukraine	Karpatneftekhim	2027		
China	Sinopec Maoming Petrochemical	2027		
China	Guangxi Petrochemical	2027		
Russia	Lukoil	2027		
China	Sinopec Zhongke Zhanjiang Petrochemical	2028		
China	Sinopec Yuevang	2028		
China	Sinopec Zhenhai Refining & Chemical	2029		
China	Sinopec Tahe Refining and Petrochemical	2030		

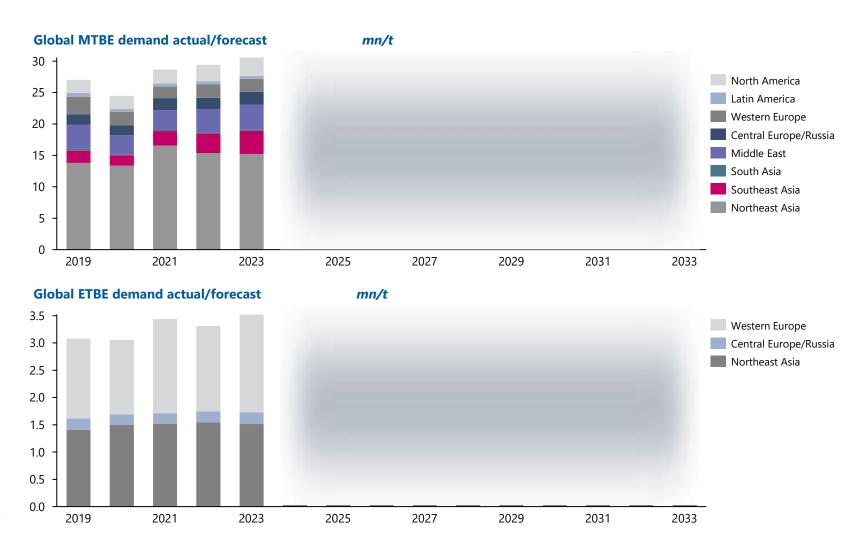


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# World MTBE and ETBE Demand Metrics Actual/Forecast, 2019-2033

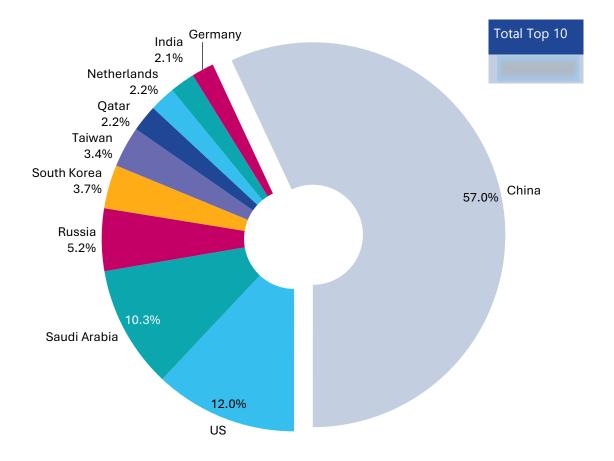
- MTBE markets saw high demand in 2022 and 2023, led by opportunistic blending as the gasoline to naphtha differentials reached high levels.
- The octane markets have now stabilized, and the gasoline and naphtha play is less incentivized versus previous two years.
- MTBE demand growth in the years ahead will be led by the Middle East, southeast Asia, Russia, and some countries in northeast Asia.
- More MTBE capacity in China will continue to make the international markets more competitive.
- New refineries in key gasoline importing regions will limit the amount of gasoline imports, which will have an impact on MTBE demand.
- US MTBE operating rates are at an estimated 80pc in 2024 amid turnarounds and unplanned outages. However, Mexico was not able to consume all US produced MTBE and therefore was exported to Europe and Asia.
- In the longer term ETBE demand expected to fall with gasoline due to electronic vehicle penetration.



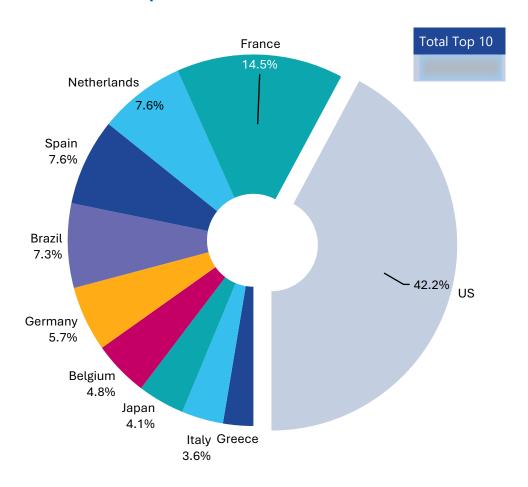


# World MTBE and ETBE Industry Overview, 2023

**Top 10 MTBE Producers** 

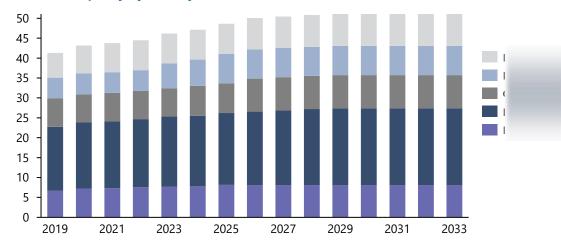


**Top 10 ETBE Producers** 



# World MTBE and ETBE Industry Overview

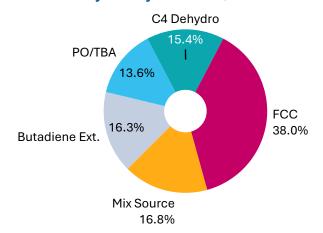
MTBE/ETBE Capacity by Isobutylene source actual/forecast mn/t

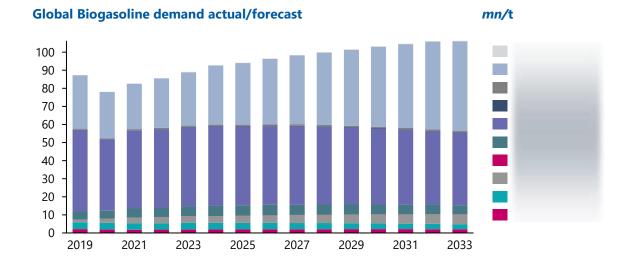


1,000 

**Global Gasoline demand actual/forecast** 

MTBE/ETBE Production by Isobutylene source, 2023



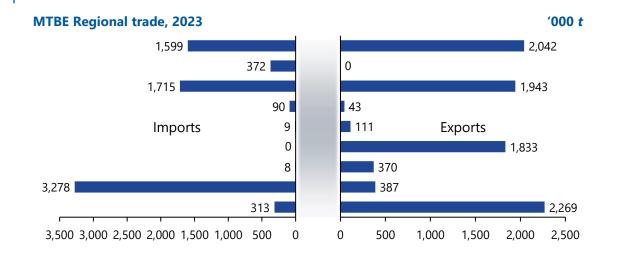


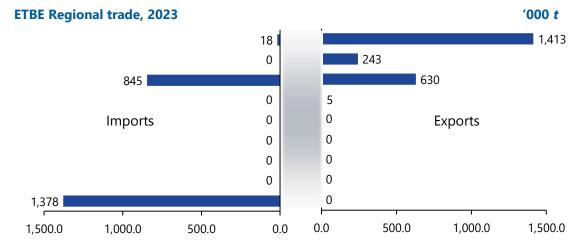


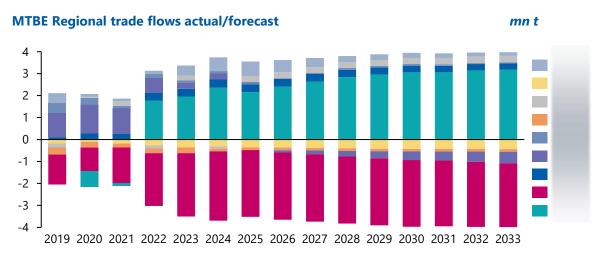
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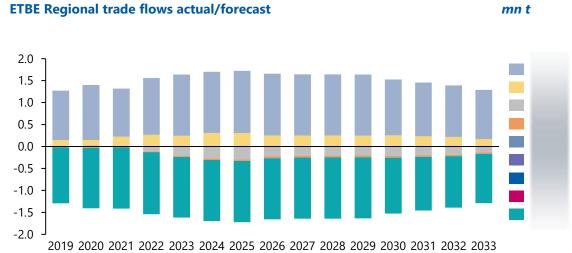
mn/t

# **World MTBE Industry Trade**



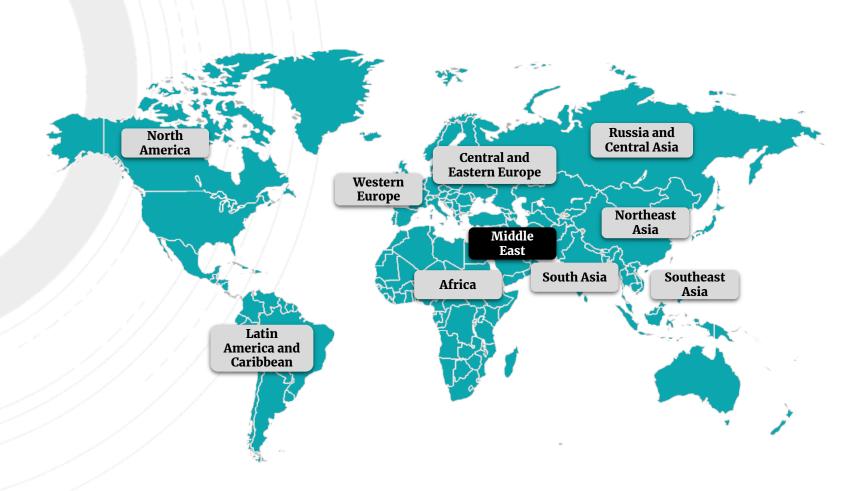




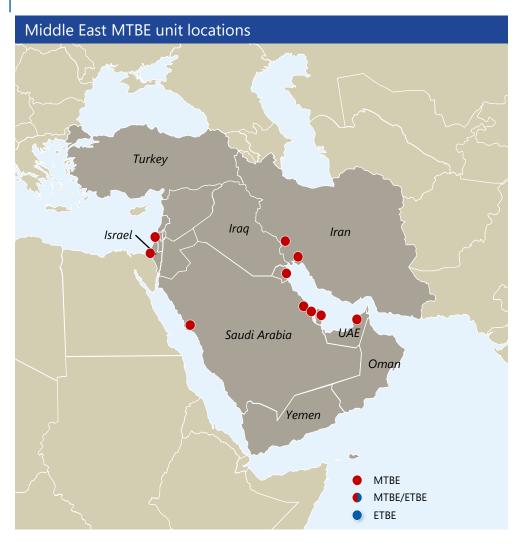




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# **Middle East**



In 2023 the Middle East represented 12pc of the world's capacity. The region's internal demand was about 13.5pc of world MTBE demand in 2023. The Middle East is the second-largest producer of MTBE behind China and is also the second-largest consuming region. MTBE use within the region has rebounded from lows in 2020 and have also surpassed demand seen in 2019. Gasoline demand in the Middle East should continue to increase in the years ahead. The most significant contributors to growth in the previous years were Saudi Arabia, UAE, Qatar and Iraq. Most countries in this region allow MTBE to be blended into gasoline, which should ensure that the blend component remains an important part of the gasoline pool in the years to come.





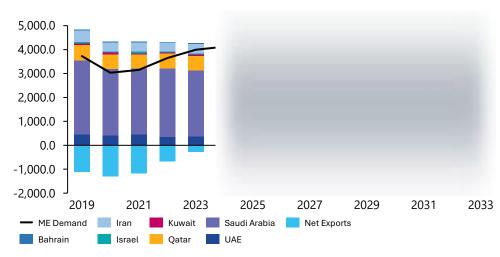
# Middle East MTBE summary

 The Middle East predominantly supplies Asia-Pacific, but exports to Europe and Latin America when the arbitrage

- Middle East imports are driven by Oman and United Arab Emirates.
- The Middle East will continue to target the Asia-Pacific region, specifically Singapore because it is a major blending hub for gasoline exports to surrounding Asia-Pacific countries.
- Export opportunities to Malaysia, Taiwan and South Korea will be reduced as new capacities have come online in those countries in the past two years.
- Large amounts of China exports have also affected MTBE shipments to Asia.

 Saudi Arabia is the largest consumer of MTBE in the region with up to 1.4mn t of demand. We expect MTBE demand to reach The next largest market is UAE with up to 1mn t of demand in 2023.

### Middle East MTBE Demand and Production '000 t

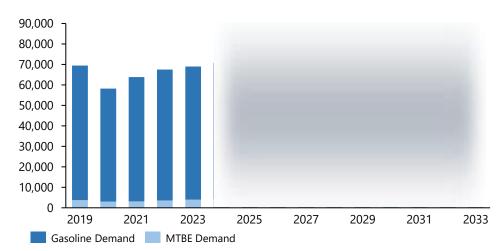


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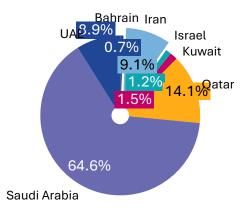
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55.1%

### Gasoline and MTBE Demand mn t



# Middle East MTBE Production by country, 2023

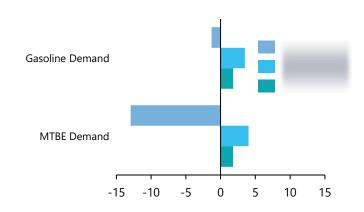




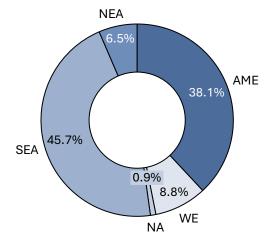
# Saudi Arabia MTBE demand actual/forecast, 2019-2033

- Saudi Arabia is now the fifth largest consumer of MTBE globally. It was the second largest, but there has been a large increase of demand from Singapore and Mexico.
- Saudi Arabia's gasoline and MTBE consumption was impacted in 2020 due to the Covid-19 pandemic, but like other regions in the world demand has recovered.
- While MTBE exports from Saudi Arabia will continue for the long term, the trade flows will be shifting as MTBE production increased in Asia and the US.
- Asia-Pacific is the biggest market for MTBE exports, but increasing MTBE capacity in Asia and increased exports from China is taking market share.
- China has seen very weak gasoline in the past few years, which has affected MTBE usage and increased MTBE exports.
- China will continue to export MTBE for the remainder of the forecast period. MTBE exports from China may decline depending on consumption tax rules.
- In 2022 and 2023, the Middle East saw an increase in export demand from the west as result of the reduced demand in Asia and disruptions/feedstock changes caused by the Russia/Ukraine conflict.
- New refineries in Africa and Mexico may reduce the need for blended gasoline shipments from Europe.

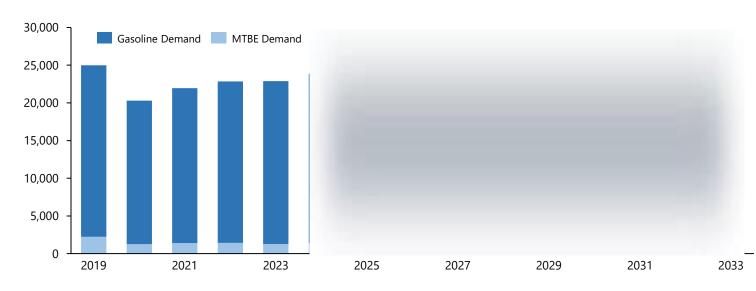
### Saudi Arabia Gasoline and MTBE Growth CAGR %



### Saudi Arabia MTBE Exports mn t, 2023

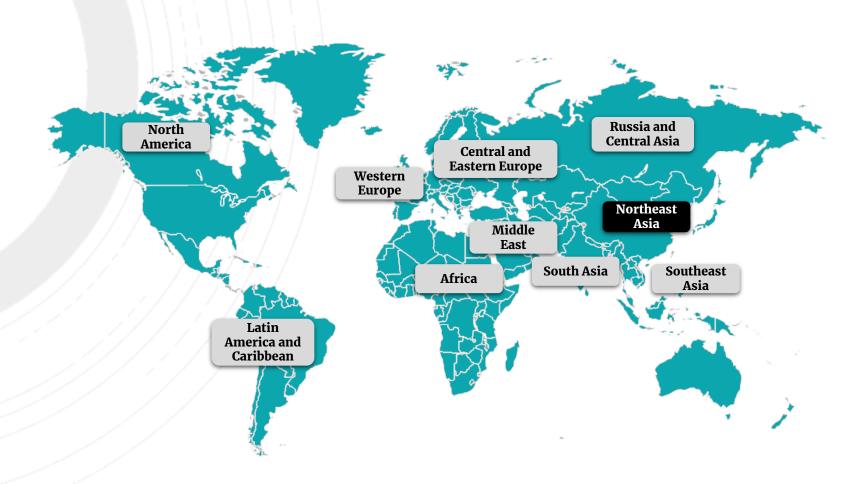


### Saudi Arabia Gasoline and MTBE Demand mn t





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# **Northeast Asia**



Argus defines northeast Asia as a combination of China, Hong Kong (independently assessed from China), Japan, South Korea, North Korea and Taiwan. China is the biggest consuming country for MTBE in Asia and globally. Over the years, China has implemented stricter gasoline standards which has caused significant growth in MTBE demand. China has an estimated total of 22mn t/yr of MTBE capacity and operates them between 68pc to 72pc every year. The rest of northeast Asia operates another 2.79mn t/yr of MTBE capacity. China increased MTBE exports as result of lower fuel use in 2023 and 2024 and strong production.

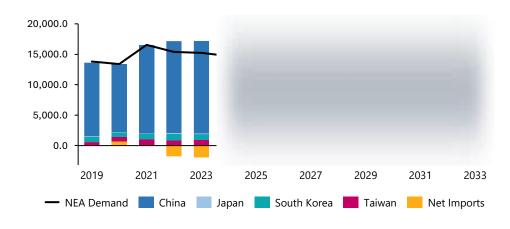
### **Northeast Asia MTBE capacity** Source 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2024 - bbl/day Country China **Butadiene Ext** China **IBDH** FCC China PO/TBA China China Mix Sources Japan **Butadiene Ext** FCC Japan South Korea Butadiene Ext South Korea FCC South Korea PO/TBA **Butadiene Ext** Taiwan Taiwan FCC Taiwan Mix Sources



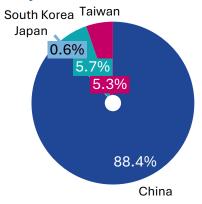
# Northeast Asia MTBE summary

- Argus expects China to continue MTBE usage throughout the forecast period, but demand is now slowing.
- China consumed more gasoline in 2023, but higher netbacks in other regions pushed MTBE out of the country. However, we are expecting gasoline demand to come down in 2024.
- Electric vehicle sales have gained considerable ground in China and is expected to ta take more market share in the years ahead.
- In 2023, China added another of MTBE capacity and another will be added in 2024. After 2024, MTBE capacity is expected to grow by anot t as part of new olefin and refinery complexes. vvnue new MTBE capacity is added, operating rates expected to fall as the world will not be able to absorb excess China MTBE production.
- China will continue to export MTBE depending arbs and domestic demand. Any changes to consumption taxes could also impact MTBE trade.
- Northeast Asia MTBE demand decreased 3pc in 2023 and expected to lose another 4pc in 2024.
- Taiwan and South Korea will lead MTBE demand growth in the region due to increasing gasoline demand and continued use of MTBE as an oxygenate and octane booster. MTBE will also see growth in the petrochemical sector.

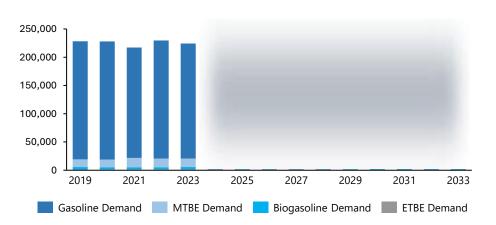
### Northeast Asia MTBE Demand and Country Production '000 t



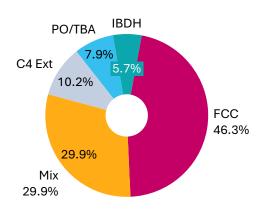
# Northeast Asia MTBE Production by country, 2023



### Gasoline and MTBE Demand mn t



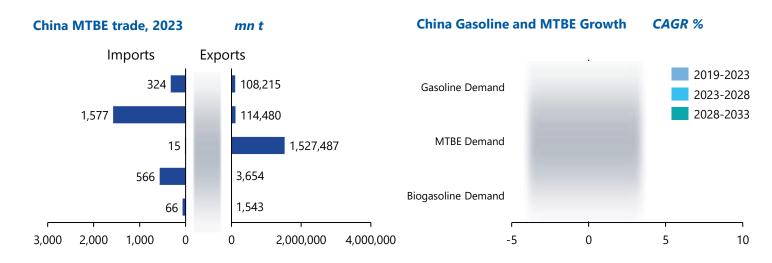
## Northeast Asia MTBE/ETBE by Feedstock, 2023



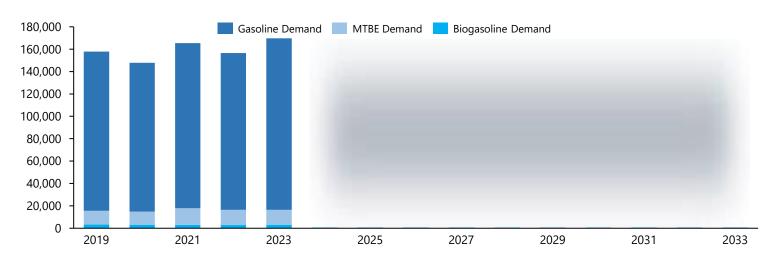


# China MTBE demand actual/forecast, 2019-2033

- In 2023, Covid-19 restrictions were relaxed and we started to see gasoline demand improve.
- However, higher MTBE net back in other countries caused China to export more volumes out of the country. China will exceed 2mn t of MTBE exports in 2024 despite a slowdown of exports in the second half of the year.
- China will mainly focus on MTBE exports to Asia as Europe and the Americas become less favorable as an outlet.
- Both gasoline and MTBE demand will fluctuate in China depending on China fuel export quota system and changes to their consumption tax.
- The Chinese government has an export quota system for gasoline which can limit refiners from producing too much gasoline. China will continue to blend a large amount of MTBE blending due to the fact that it has no consumption tax.
- Argus expects gasoline/biofuel demand to have peaked in 2023 as electric vehicles take market share.
- MTBE demand is expected to fall to 10mn t by the end of the forecast period due to electrical vehicle taking more market share. However, there will be challenged for electrical vehicle adoption as the government reduced subsidies in 2023.



### China Gasoline and MTBE Demand mn t





# We hope you found this sample report for Argus MTBE and ETBE Analytics valuable.

The Argus MTBE and ETBE Analytics service is for anyone engaged in the MTBE and ETBE market and seeking insight into the fundamentals driving key trends, including global supply, demand growth, exports, operating rates, global gasoline demand, gasoline standards, etc. Below are examples of how some clients use this service.

If you want to learn more about becoming an Argus subscriber and receiving full PDF reports complete with accompanying Excel data files twice a year, click below:

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# Roel Salazar Lead Consultant, Fuels and Octanes

Roel Salazar is the Lead Consultant for Fuels and Octane for *Argus*. Roel is responsible for covering the US and Latin American MTBE markets and the weekly Fuels & Octane Report. Roel is also instrumental in preparing the global Fuels and Oxygenates Annual. Roel joined *Argus* in 2005 as an Olefins Analyst and joined the Fuels and Octane team in 2011. His petrochemical experience includes working at one of Mobil's ethylene crackers in Houston between 1996-97. He holds an undergraduate degree in Information Systems from the University of Houston.



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Becky Zhang Lead Consultant, Asia Methanol

Becky works as an editor for Asian olefins and methanol markets. She has 10 years experience of real-time market editor work. She also spent two years in consulting services as a project manager focusing on the Chinese market and led projects in various industries, including refining, olefins, polymers, coal and methanol. Becky is a chemical engineering graduate from the East China University of Science and Technology and has two masters' degrees, in environmental and energy engineering from the University of Sheffield and in Entrepreneurship from the University of Nottingham.



# Appendix: MTBE Analytics and ETBE Methodology

### **Period presented**

The annual period for this study is the historical years 2019 through 2023, and forecast data for 2024 through 2033, inclusive.

### **Analysis and forecasting**

The Analytics service contains detailed information such as capacities, production, demand and trade for most producing and consuming countries in the world. Demand forecasts are based on relationships to derivative and end-use consumption trends and expected country-by-country economic growth projections. Argus uses data, market opinions and views on market trends to develop the medium-term supply and demand and corresponding price and margin forecasts. When appropriate, Argus makes adjustments to published data, for example trade data reported by countries or government-reported statistics. Although data gathering is essential to understanding the ethylene market's history and potential future trends, Argus believes the interpretation of this data is the most valuable part of this analysis.

### Weights, currencies and percentages

Unless explicitly stated, all weights are given in metric tonnes and all references to dollars are to US dollars. Currency conversions have been made either at a current or relevant historical exchange rate, as required by the context. Numbers may be rounded. This means that table totals may differ from the sum of the individual figures, and percentages may sometimes appear not to total exactly 100pc.

### Your feedback is welcome

Argus thanks our valuable clients and contacts for sharing opinions and expertise during the compilation process. Data verification is the cornerstone of to the quality of the analysis, and the input received from global market participants is critical to arriving at logical and realistic conclusions. It is important that this product meets client's expectations, and we encourage feedback to ensure continuous improvement. If additional company-specific or more detailed long-term analysis is desired regarding ethylene or other petrochemicals, please contact the Argus team.



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