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ExxonMobil plans for the largest low-carbon hydrogen production facility in the world

https://corporate.exxonmobil.com/news/newsroom/news-releases/2023/0130_exxonmobil-awards-feed-for-worlds-largest-low-carbon-hydrogen-facility

ExxonMobil announced a $100 billion plan to capture CO2 emissions and store it in depleted oil reservoirs and other underground formations below the Gulf of Mexico or beneath the adjacent coastal areas.

ExxonMobil's low-carbon hydrogen, ammonia and carbon capture facility at Baytown, Texas is expected to produce one billion cubic feet of low-carbon hydrogen per day, making it the largest low-carbon hydrogen project in the world at planned startup in 2027-2028.

ExxonMobil announced the next step in the development of the world's largest low-carbon hydrogen production facility with a contract award for **front-end engineering and design (FEED)**. A final investment decision for the project is expected by 2024, subject to stakeholder support, regulatory permitting, and market conditions.

Project targets 1 billion cubic feet of low-carbon hydrogen per day, while capturing more than 98% of associated CO2 emissions
Offtake agreements under discussion with third party customers
Up to 30% reduction in Scope 1 and 2 emissions at Baytown integrated complex

More than 98% of the associated CO2 produced by the facility, or around 7 million metric tons per year, is expected to be captured and permanently stored.

The carbon capture and storage network being developed for the project will be made available for use by third-party CO2 emitters in the area in support of their decarbonization efforts.

“This project allows us to offer significant volumes of low-carbon hydrogen and ammonia to third party customers in support of their decarbonization efforts,” said Dan Ammann, president of ExxonMobil Low Carbon Solutions. “In addition, the project is expected to enable up to a 30% reduction in Scope 1 and 2 emissions from our Baytown integrated complex, by switching from natural gas as a fuel source to low-carbon hydrogen.”

ExxonMobil will pair the world’s largest low-carbon hydrogen facility with the largest olefins plant in the United States to deliver more sustainable, lower-emissions products for customers and society.

ExxonMobil has awarded the contract to **Technip Energies** who will be responsible for the next stage of front-end engineering and design of the low-carbon hydrogen project.

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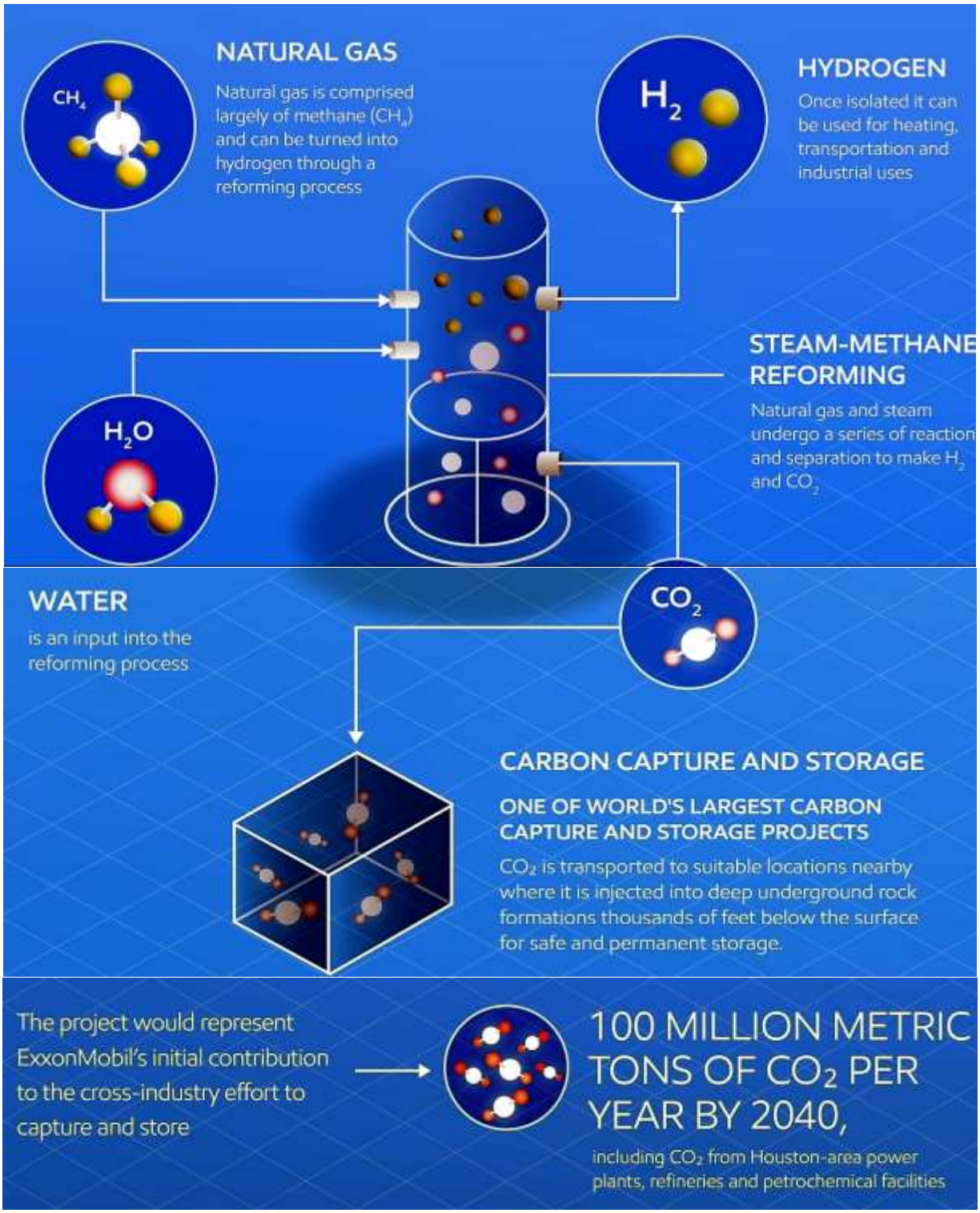
The Hydrogen Process



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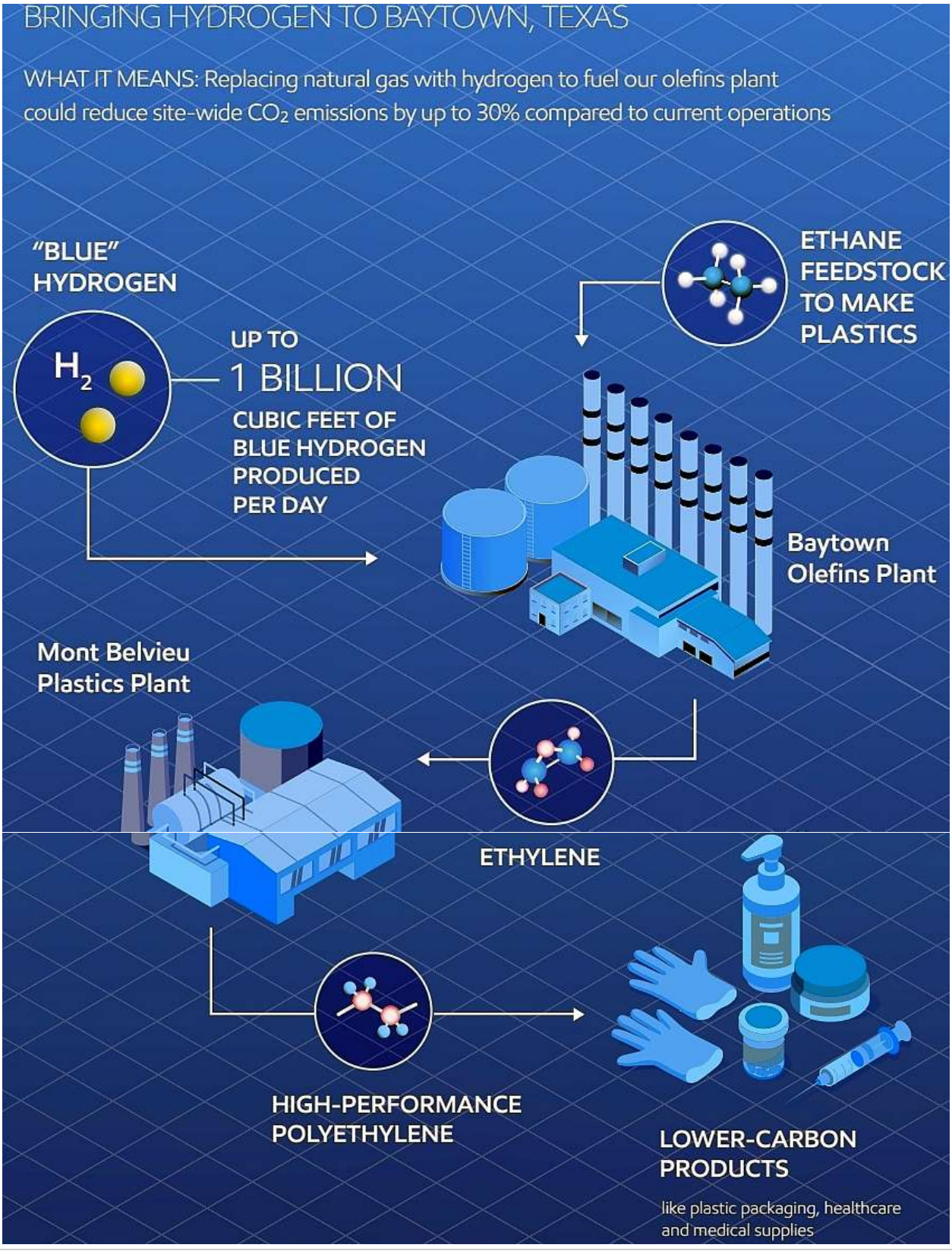
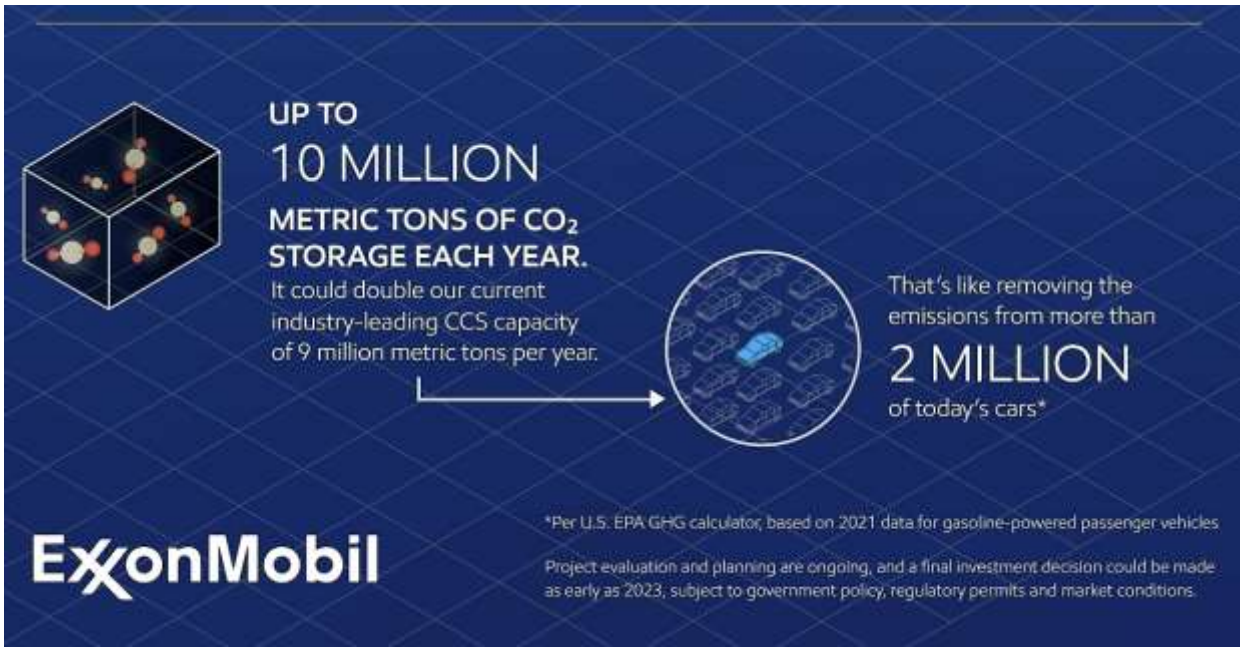


The Goal



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Hydrogen Benefits and Considerations
https://afdc.energy.gov/fuels/hydrogen_benefits.html#:~:text=Hydrogen%20can%20be%20produced%20from,stationary%20and%20transportation%20energy%20sectors.

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