

Refinery Modernization Project

FREQUENTLY ASKED QUESTIONS

Q: What is the Refinery Modernization Project?

A: The Refinery Modernization Project is an approximate \$1 billion investment to replace some of the Richmond Refinery's oldest processing equipment with more modern technology and includes a safety program that far exceeds regulatory requirements. The project will create 2,300 local construction and related jobs.

Q: What is the purpose of modernization?

A: Modernization will enable the refinery to continue to competitively produce gasoline, diesel and jet fuel and lubricating base oils that meet California's strict environmental regulations. The upgrades will improve the reliability of the refinery and allow us to operate successfully well into the future.

Q: What are the primary modernization components?

A: The vast majority of modernization includes replacing older equipment with newer technologies that are inherently safer and will help meet the nation's toughest air quality standards. The project includes replacing the existing 1960s hydrogen plant with a more modern plant that is 20% more energy efficient and produces purer hydrogen. Modernization also provides the refinery with the flexibility to process crude oil blends and gas oils containing higher levels of sulfur while meeting safety and environmental standards.

Q: How will modernization reduce emissions?

A: Modernization includes limits on refinery emissions to ensure that they do not increase as a result of the project. Greenhouse gasses, criteria air pollutants and other emissions will likely decrease as a result of the project. Modernization installs new air pollution control equipment and energy efficiency upgrades including using two new ships that frequently delivery crude oil to the refinery with engines that go beyond current environmental requirements, adding domes to fuel storage tanks, and using low-nitrogen oxide burners, furnaces and wet electrostatic precipitators to protect air quality and reduce pollution. The project also requires annual emissions reporting to the Bay Area Air Quality Management District to ensure the refinery meets environmental performance commitments.

Q: How does modernization address greenhouse gas emissions?

A: The modernization project includes a limit on greenhouse gas emissions to ensure that they do not increase as a result of the project. Modernization represents one of the most important steps the refinery can make to improve energy efficiency. As part of the project, the Richmond Refinery will also invest \$30 million over 10 years in the City of Richmond and North Richmond to fight climate change and create local green jobs. In addition, the refinery has provided 60 acres of land to create the largest solar installation in Contra Costa County, which will be developed and operated by Marin Clean Energy – the company that provides electricity to customers in Richmond.

Q: What role does the hydrogen plant play in the refining process?

A: Hydrogen is used to remove impurities, such as sulfur and nitrogen, while processing crude oil and during the production of gasoline. This helps us produce cleaner gasoline and meet California's strict standards, which is better for consumers and the environment. This process, known as hydrotreating, allows us to recover a solid form of sulfur that is sold for industrial and agricultural use. In addition, it allows refineries to convert crude oil into transportation productions through hydrocracking.

Q: How does modernization make the refinery safer?

A: Modernization includes a safety program that is more stringent than existing regulations. Specific enhancements and updates include installing new, upgraded piping circuits with greater resistance to corrosion. Modernization also adds significant regulatory oversight, including additional independent safety inspections and annual reporting to refinery workers and the community.

Q: How else does modernization benefit the community?

A: The project includes significant benefits for the entire Richmond and North Richmond community. As part of modernization, the Richmond Refinery agreed to invest \$90 million through an Environmental and Community Investment Agreement to fund programs such as college scholarships, job training and grants for non-profits.

Q: Will Richmond residents get jobs to work on modernization?

A: The refinery, the City of Richmond and local building trades unions are working together to increase job opportunities for Richmond and North Richmond residents and the supply of goods and services from Richmond and North Richmond businesses for work related to modernization. We have hired a Local Hire Job Coordinator, Akeele Carter who is working with qualified Richmond and North Richmond residents interested in job opportunities related to the project. Ms. Carter can be reached at 510-242-4018 or AKEC@chevron.com

Q: What's next?

A: We are continuing to make progress on modernization as part of the planning, engineering and pre-construction phase. Construction is estimated to begin later this year and could take 18-24 months to complete.