

The Arab Oil Embargo and Ethanol: 50 Years Later

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By RFA President and CEO Geoff Cooper

Fifty years ago this week, the Organization of Petroleum Exporting Countries (OPEC) announced an embargo on oil exports to the United States in retaliation for America's support of Israel in the Yom Kippur War. The embargo took a devastating toll on the U.S. economy, as world oil prices quadrupled in a matter of weeks. Americans faced record high gas prices, long lines and rationing at gas stations, and—in many cases—stations that had no fuel at all. More broadly, the 1973 energy crisis was a major driver of the high inflation rates and stagnation that plagued the U.S. economy throughout the remainder of the 1970s.

Five decades later, with war again raging in Israel and global energy markets again on edge, the semicentennial anniversary of the Arab oil embargo provides an opportunity to reflect on how far we've come in improving U.S. energy security—but also how far we still have to go to achieve true energy independence.

A few years after the Arab oil embargo was lifted, newly elected President Jimmy Carter signed legislation focused on strengthening U.S. energy security and better insulating the economy from global oil shocks. Among many other provisions, the bill included the first-ever tax incentives supporting the production and use of renewable fuels. And, thus, the seeds of today's U.S. ethanol industry were planted.

In the decades since, the ethanol industry has grown dramatically. Indeed, renewable fuels have led the transition to a U.S. energy market that is far more secure and resilient than it was in the 1970s. The facts are undeniable:

- Today, ethanol makes up **10.5 percent** of the nation's gasoline supply, up from essentially **zero** in 1973 and less than **1 percent** 30 years ago in 1993.
- Since 1973, the U.S. industry has cumulatively produced **6.1 billion barrels** of cleaner-burning ethanol—that's **256 billion gallons**. It would take **9.3 billion barrels** of crude oil to refine an equivalent amount of gasoline (each 42-gallon barrel of crude oil yields roughly 19 gallons of gasoline).
- The **15.4 billion gallons** of U.S. ethanol produced in 2022 displaced an amount of gasoline refined from roughly **600 million barrels** of crude oil. That means **\$61 billion** stayed in the U.S. economy, rather than flowing to OPEC to pay for oil.
- U.S. petroleum imports from OPEC are **down almost 60 percent** since the 1973 crisis (from roughly 3 million barrels per day to 1.25 million barrels per day in 2022) and **down 80 percent** from the peak level (6 million barrels per day) in 2007, which—not coincidentally—was the year the Renewable Fuel Standard was extended and expanded.

- After peaking at **9.2 billion gallons** in 2005, U.S. imports of finished motor gasoline have plummeted to about **1 billion gallons** annually in recent years.
- Adding low-cost ethanol to the nation’s gasoline supply not only improves energy security, but it also enhances economic security for American households. A recent study by university economists concluded that “adding ethanol to gasoline decreases the price paid by U.S. drivers at the pump. We estimate the average **discount per gallon to be \$0.77** between 2019 to 2022 and averaged across our models. ...this would add up to total savings of **\$95.1 billion per year** for U.S. consumers.”

Clearly, our nation has made enormous strides toward energy independence since the Arab oil embargo of 1973. But we’re not there yet. As recent events have shown us, geopolitical events and unrest—like conflict in Israel and war in Ukraine—still significantly influence the price of gasoline for U.S. consumers. While increased domestic energy production (in all forms) has absolutely helped to blunt the impact of geopolitics on fuel prices and supplies, the American consumer’s pocketbook is still affected by events unfolding halfway around the world. Why? Consider these facts:

- Even though the U.S. is now a net energy exporter, we still import a lot of crude oil. In 2022, nearly **2.3 billion barrels** of oil worth roughly **\$232 billion** were imported by U.S. refiners. The U.S. still imports almost twice as much crude oil as it exports. Almost **40 percent** of the crude oil processed by U.S. refiners last year was imported, meaning the U.S. market continues to feel the effects of global oil shocks.
- For example, U.S. oil prices jumped more than **\$21 per barrel** (23 percent) in the month following Russia’s invasion of Ukraine. Not surprisingly, gas prices followed, surging by about \$1.50 per gallon and eventually hitting a record high of \$5.01 in June 2022.
- About **16 percent** (360 million barrels) of our oil imports still come from OPEC, meaning our nation still transfers billions of dollars every year to the cartel. In 2022 alone, the U.S. sent roughly **\$31 billion**—or **\$240 per American household**—to OPEC nations to pay for crude oil imports.
- As recently as 2016, more than **one-third** of U.S. oil imports came from OPEC, and with the recent easing of U.S. sanctions on oil imports from Venezuela, OPEC’s share of total U.S. imports is set to rise again.
- Meanwhile, the amount of crude oil in the U.S. Strategic Petroleum Reserve has essentially been **cut in half** over the past decade, falling to a **40-year low** in 2023.

As long as U.S. gas prices are significantly influenced by developments in the Middle East, Eastern Europe, and other regions, no one can credibly argue that the United States is truly “energy independent.” Yes, our nation’s energy market is undeniably more secure, resilient, and diversified than it was 50 years ago—and that’s great news for American consumers. But we still have plenty of work to do, and ethanol and other renewable fuels hold the key to a safer and more secure American energy future.



That's why RFA will continue our diligent efforts with Congress and the administration to ensure renewable fuels have a prominent role in our nation's energy strategy. From removing arcane barriers that prevent year-round consumer access to higher ethanol blends (like E15) to protecting the Renewable Fuel Standard to ensuring smooth and rational implementation of clean energy tax provisions from last year's Inflation Reduction Act, we will continue to work with our nation's leaders to capture ethanol's full potential as a homegrown, low-carbon, low-cost energy source.