Salem's Lot: Gulf War update; the Purge of senior US military officers; a US fossil fuel reliance fever dream

The US Air Force has flown over 13,000 missions in Iran, striking over 12,000 targets. Iranian drone and missile strikes have declined by 90%-95% since the war began, and interception rates by Gulf countries is reported at 90%+. Retired Air Force Brigadier General Cantwell: "The fact that there have not been more fighter jets lost in Iran is a testament to the capabilities of US forces. That this hasn't happened until now is an absolute miracle".

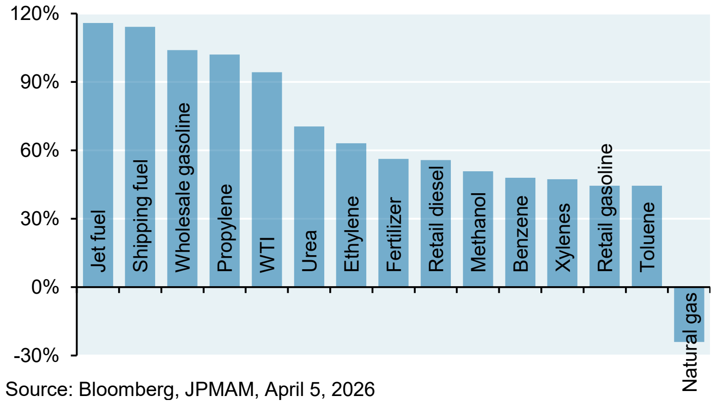
Even so, when reading the war news over the last few days including damage to Gulf State infrastructure, damage to several US army bases and effective Iranian control of the Strait of Hormuz, I thought of Stephen King's *Salem's Lot.* The main character journeys to a town called Jerusalem's Lot with the best of intentions to fight evil. Things don't quite go according to plan, the town is eventually burnt to the ground and depopulated with residents turning into vampires and everyone ends up worse off than at the beginning.

"Go get your own oil"[1] and the limits of energy independence

The notion that the US is insulated from market consequences of the Strait of Hormuz being closed is mostly false. While US natural gas prices have actually declined this year, most other hydrocarbon-related fuels and refined product prices have increased materially as shown in the first chart[2]. In some instances, US price increases are even higher than increases elsewhere in the world, as shown in the second chart. For example: US crude oil, wholesale gasoline, naphtha, shipping fuel and certain petrochemical price increases this year are even *higher* than price increases in Europe and Asia. And even though the US is a net exporter of jet fuel, US jet fuel prices have risen by around two thirds of international increases.

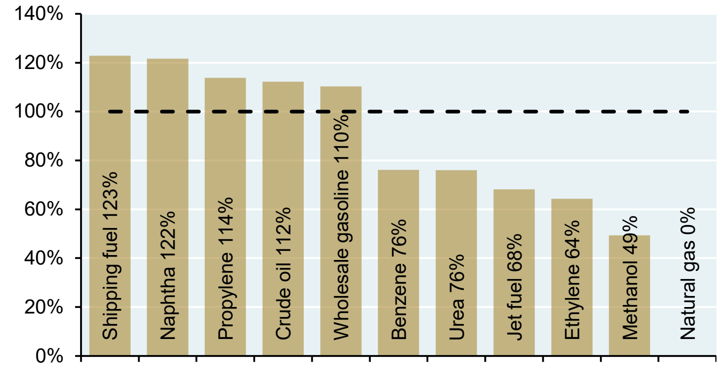
Bottom line: US fossil fuel independence is not as much of an economic firewall as you might think.

Absolute YTD US commodity price changes
% price change



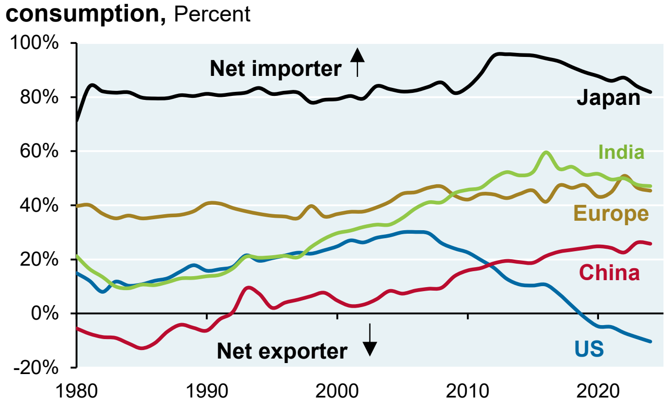
Source: Bloomberg, JPMAM, April 5, 2026

Commodity price pass-through rate to the US
US YTD % price change / non-US YTD % price change



Source: Bloomberg, JPMAM, April 3, 2026

Net imports of fossil fuels as a percent of primary energy consumption, Percent



Source: Energy Institute, JPMAM, 2025

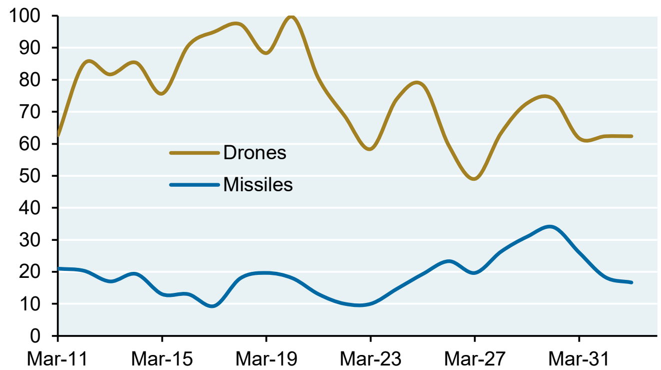
[1] A Trump tweet from March 31, directed at Europe and Asia

[2] Our Trump Tracker has been expanded to include charts comparing US and international prices for each of the commodities discussed above

Ammunition deployment and defense

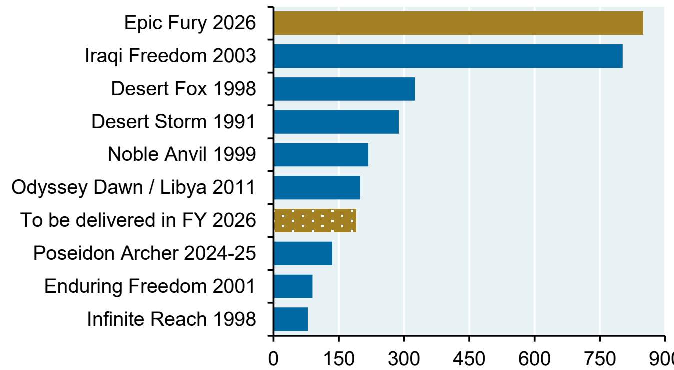
While the US, Gulf countries and Israel have reportedly achieved 90%+ missile and drone interception rates, a shortage of interceptors may be looming[3] at a time when Iranian attacks are still ongoing, including harder-to-intercept cluster munitions. JINSA reports that missile hit rates against Israel have risen from 3% during the first two weeks of the war to 27%. Operation Epic Fury has now set a record for US Tomahawk missile deployment, surpassing the Iraq War in 2003 and exhausting four years of supply based on current production rates.

Iran attacks on Gulf countries since March 11, 2026
3 day moving average, including Bahrain, Saudi Arabia, Kuwait, UAE



Source: Institute for the Study of War, JPMAM, April 2, 2026

Tomahawks used in US military campaigns
Tomahawks expended by the US



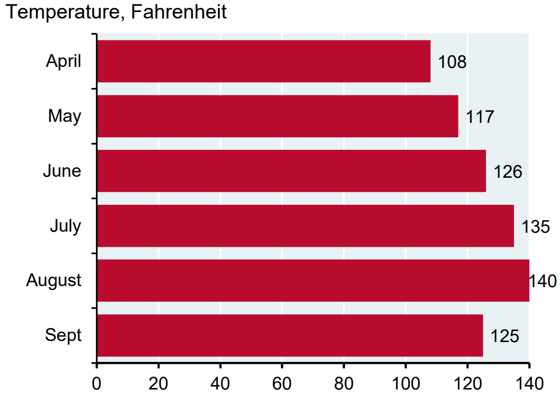
Source: CSIS, March 27, 2026

Weather and the war

Articles on high-risk US military options often refer to (a) strike forces to seize Iranian enriched uranium supplies, (b) seizing Kharg Island or (c) seizing Qeshm Island, which at 1,500 sq km is larger than Okinawa and Iwo Jima where some of the fiercest battles of WWII were fought. The Gulf also has unique weather attributes which may preclude these options as the region heats up over the next couple of months given potential damage to equipment and troops. For example: in June as peak temperatures reach 126° F, exposed metal temperatures can reach 160°F and vehicle interiors can reach 176° F.

These dynamics may explain why the Trump Administration is reportedly looking for a near-term exit and letting the rest of the world figure out what to do about the Strait. Note: wet bulb temperatures include the benefit of human sweat cooling the body in extreme temperatures.

Persian Gulf expected peak temperatures in 2026
Temperature, Fahrenheit



Source: Climate & Capital Media, WMO, NOAA, USARIEM, WHO, March 2026

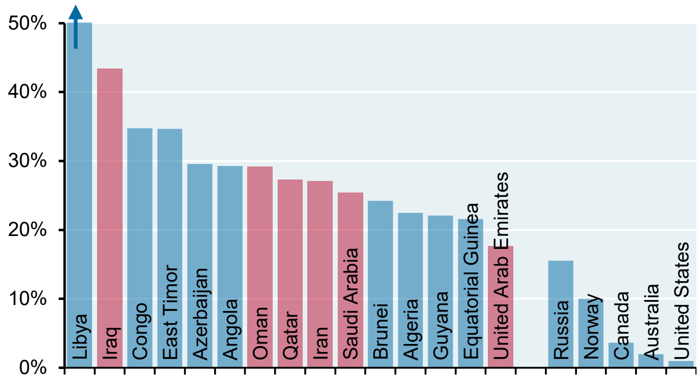
- **April:** Acclimatization requires 10–14 days. Marines in 50+ lbs combat gear face Wet Bulb Globe Temperatures near Army mandatory activity-reduction threshold of 90°F
- **May:** Temperatures reach 108–117°F on Persian Gulf coastal islands. The Persian Gulf is the world's most thermally extreme marine environment
- **June:** Exposed metal hits 160°F; vehicle interiors reach 176°F
- **July:** Wet Bulb temperatures near 95°F, the limit where the human body cannot cool itself even in shade
- **August:** Sustained outdoor military operations can become physiologically unsurvivable without mechanical intervention, which can fail in extreme heat
- **September:** The heat finally breaks; equipment may be degraded after months of thermal stress

[3] JINSA estimates the following Patriot interceptor depletion rates: UAE 75%, Kuwait 75%, Bahrain 87%, Qatar 40%

Damage to Gulf infrastructure and Iran's proposed Strait of Hormuz toll

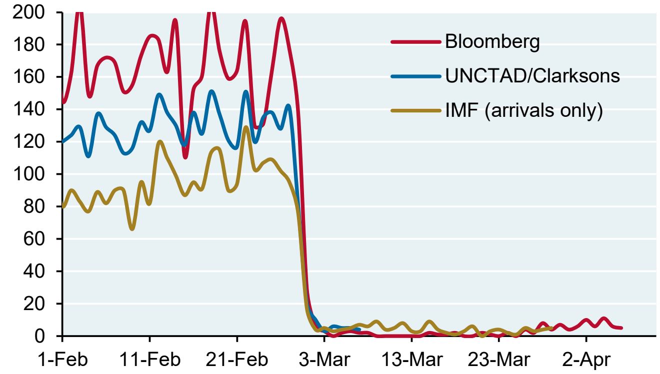
While Gulf countries have among the highest contributions to GDP from oil & gas, they have made meaningful progress in recent years in diversifying their economies. But this new infrastructure is being damaged as well with Iranian attacks on aluminum smelters, steel factories, banking, agriculture and tourism.

Economic profits from oil & gas extraction
% of GDP



Source: OWID, World Bank, JPMAM, 2025

Strait of Hormuz shipping activity
Container, dry bulk, oil tankers, roll-on/off and general cargo



Source: UNCTAD, Clarksons, IMF, Bloomberg, JPMAM, April 6, 2026

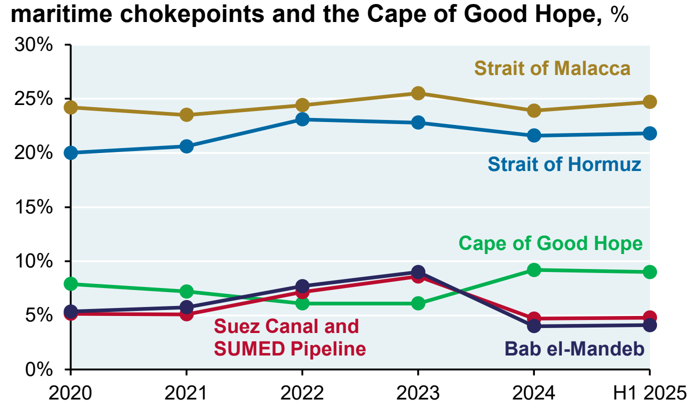
Iran's proposed toll on the Strait of Hormuz would have been unimaginable when the war began but according to Bloomberg Middle East Economist Dina Esfandiary, "Iran probably did not expect its Hormuz strategy to be this successful…the lesson Iran has learned from this war is that holding the global economy hostage is cheaper and easier than anticipated." Iran proposes to charge 100 - 130 vessels per day $2 mm each, which would amount to $70 - $90 bn per year in revenues (!!). Even if Iran only charged $2 mm each to the 2,000 to 3,000 commercial vessels currently stranded in the Gulf (estimates differ), Iran would raise $4- $6 billion dollars which matches or exceeds recent annual toll revenues for the major canals listed below.

Major canal toll revenues, annual

- Panama Canal: $5.7 bn (2025)
- Suez Canal: $10 bn (2023), $4 bn (2024), $4 bn (2025); decline due to Houthi impact
- St Lawrence Seaway: $86 mm (2025)
- Bosphorus + Dardanelles (Turkey): $227 mm (2024)
- Kiel (Germany): $20mm-$30mm; while Kiel traffic is the highest in the world, it is owned by the Federal Republic of Germany and run at an operating loss

Sources: Reuters, AP News, GCC Business Watch, Great Lakes Seaway Review, Türkiye Today, 2024 Germany Federal Budget Report, JPMAM

Share of global oil supply transported through major maritime chokepoints and the Cape of Good Hope, %

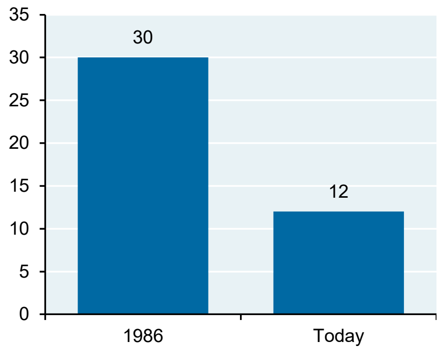


Source: EIA, H1 2025

Other challenges in reopening the Strait: changes in US naval capacity and asymmetric warfare

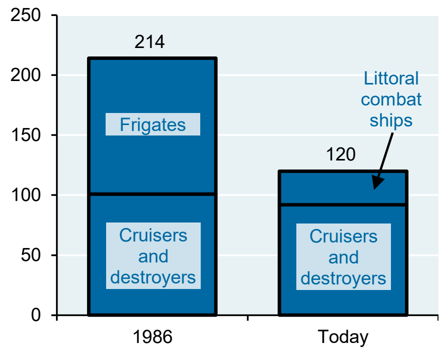
As shown below, the stock of US naval warships and mine-hunting vessels is much lower than in the 1980's. In 1986, the fleet included 113 frigates which are smaller than destroyers but vital for missions such as escorting convoys. Today there are no more frigates, having been replaced by littoral combat ships that have turned out to be mechanically unreliable, underequipped for high-threat environments and unsuited for key missions[4]. The attempt to replace them with an Italian-designed frigate has collapsed due to overly costly modifications. As for mine-hunting vessels, the current fleet of four is due for retirement; remaining unproven mine-clearing capabilities exist on littoral combat ships that weren't primarily designed for mine warfare. These charts are part of a presentation I will be making at JP Morgan's upcoming Defense Action Forum conference.

US warships in the Gulf region
Count



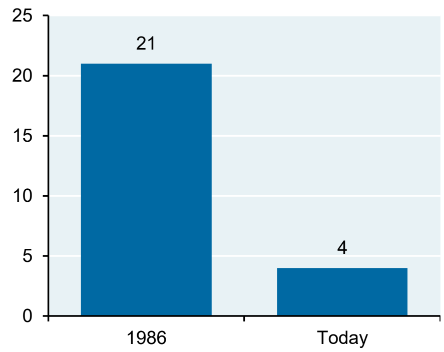
Source: Johns Hopkins (SAIS), March 25, 2026

US frigates, cruisers, destroyers and littoral combat ships, Count



Source: Johns Hopkins (SAIS), USNI, Mar 25, 2026

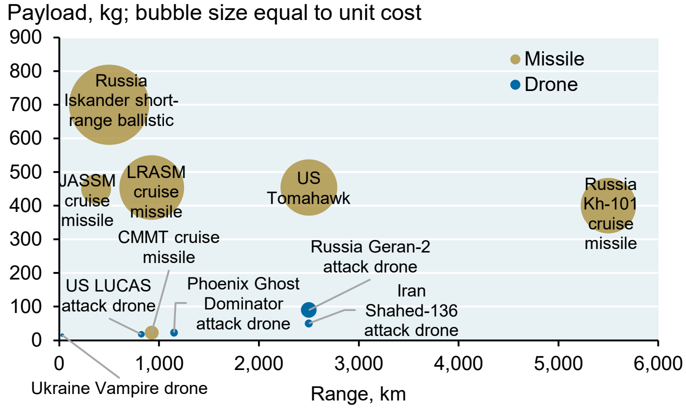
US mine hunting vessels
Count



Source: Johns Hopkins (SAIS), March 25, 2026

To understand just how **asymmetric warfare** has changed the nature of missions such as those to potentially reopen the Strait of Hormuz or neutralize nearby threats, consider the chart below. The tiny blue dots represent drone technology which now have similar ranges to more advanced missile systems. While drone payloads are much smaller, (a) it only takes small payloads to cause tremendous damage to much more expensive aircraft, ships and radar systems, and (b) drones carry more payload per unit cost than many missile systems. For example: the unit cost per payload of the long-range anti-ship missile system (LRASM) is $7,137 per kg compared to $2,130 per kg for the Phoenix Ghost drone.

Estimated cost, payload and range for drones & missiles
Payload, kg; bubble size equal to unit cost



Source: Council on Foreign Relations, March 9, 2026

Unit cost per payload

Description	US$/kg
Russia Iskander short-range ballistic	$7,143
LRASM cruise missile	$7,137
CMMT cruise missile	$6,522
Russia Kh-101 cruise missile	$6,000
US Tomahawk	$5,507
Russia Geran-2 attack drone	$2,144
Phoenix Ghost Dominator attack drone	$2,130
US LUCAS attack drone	$1,944
JASSM cruise missile	$1,551
Iran Shahed-136 attack drone	$1,000
Ukraine Vampire drone	$667

Missile
Drone

Source: Council on Foreign Relations, March 9, 2026

[4] The littoral combat ship fiasco:

- "*The war with Iran is exposing big problems for the military*", Eliot Cohen (Johns Hopkins/US Naval War College), The Atlantic, March 25 2025
- "*Billions of Dollars Wasted: The Navy's Littoral Combat Ship Nightmare*", The National Interest, October 2024
- "*The Inside Story of How the Navy Spent Billions on the Little Crappy Ship*", ProPublica, September 2023

The Purge: Presidential sacking or sidelining of senior military officers

It's not unprecedented for Presidents to fire or sideline four- and five-star military officers, but it's rare. Here are nine instances from 1860 to 2016. Reasons fall into two general categories: competence and conduct.

Failed military campaigns (three instances)

- Lincoln fired General McClellan after the Battle of Antietam since McClellan did not pursue General Lee's retreating army. There was no small dose of politics in play as well since McClellan was highly critical of Lincoln and ran against him in the 1864 election. McClellan wore three stars as General of the US Army but we include him since four stars did not exist yet, being created after the Civil War (Ulysses S Grant was the first one)
- FDR fired Admiral Kimmel after the Pearl Harbor disaster. In 1999, the Senate passed a non-binding resolution to restore their prior ranks but Clinton never acted on it
- Obama fired General McKiernan for failed military strategy in Afghanistan

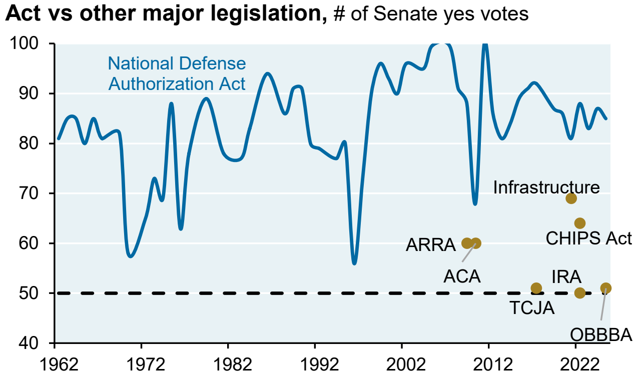
Insubordination, public statements disagreeing with the Commander in Chief, Article 88 violations under the Uniform Code of Military Justice or public disclosure of confidential information (six instances)

- FDR fired Admiral Richardson in 1941 when Richardson argued that the US was not ready for a war in the Western Pacific, insisting that the fleet return to the US mainland. Richardson was proven correct; his replacement Admiral Kimmel was then fired by FDR for the ensuing Pearl Harbor attack as described above
- General Patton was fired from his role commanding the Third Army due to insubordination. In 1945 after WWII ended, Patton criticized US cooperation with the Soviets and defied General Eisenhower by using former Nazi Party members in administrative jobs. He was relieved of his Third Army command and put in charge of the Fifteenth Army, a small organization set up to prepare a written history of the war in Europe
- General MacArthur was fired by Truman for publicly disagreeing with Truman's efforts to keep the Korean War limited and avoid a shooting war with China. Truman was so concerned that MacArthur might resign first that he announced MacArthur's firing at 1 am. All the Joint Chiefs agreed on the decision to relieve MacArthur of his command in order to reinforce the principle of civilian control over the US military
- Admiral Denfeld was fired by Truman for opposition to US defense cuts and military unification during the "Revolt of the Admirals", who opposed prioritization of strategic nuclear bombing over naval aviation
- General Dugan was fired by Bush for disclosing confidential information regarding Iraq air strike plans
- General McChrystal was fired by Obama for criticism of VP Biden that showed up in *Rolling Stone*

According to an April 2nd piece in *The Atlantic*, the pace of Trump's military purge is the largest in the modern era[5]. Posterity and military historians will determine which category the fired or sidelined four-star generals and admirals below fall into[6], or if a new category is needed. All nine have occurred during the last 14 months compared to nine in the prior 150 years. There has always been a large degree of bipartisanship in the Congress on defense issues (see chart on NDAA passage margins), but this no longer applies to the Executive Branch.

- Vice Chief of Staff of the Air Force James Slife
- Chief of Staff of the Air Force David Allvin
- Chairman of Joint Chiefs Air Force General CQ Brown
- Air Force General and NSA Director Tim Haugh
- Chief of Staff of the Army General Randy George
- Vice Chief of Staff of the Army James Mingus
- Army Transformation Command General David Hodne
- Commandant of the Coast Guard Admiral Linda Fagan
- Chief of Naval Operations Lisa Franchetti

Partisan support for the National Defense Authorization Act vs other major legislation, # of Senate yes votes



Source: US Senate, JPMAM, 2026

[5] "*An army shake-up in the middle of a war*", The Atlantic, April 2, 2026

[6] The list includes four-star generals and admirals. There's a longer list of three-star generals that have been fired as well, including Judge Advocates General for the Army, Navy and Air Force

A US fossil fuel reliance fever dream

This might seem like a strange time to think about a decline in US fossil fuel reliance. After all, the US just paid $1 billion to a French company to transition its investments in the US from offshore wind to oil & gas, and the end of the EV subsidy has resulted in US EV sales falling from ~9% of sales to ~6%. But given the high commodity shock pass-through shown earlier, some analysts argue that the US should accelerate the transition away from fossil fuels. **To be clear, this would be a long road**: fossil fuels represent 85% of useful final energy consumption in the US (compared to ~75% in Europe, 85% in China, 85% in Japan and 92% in India).

But for the sake of argument, let's assume that the following decarbonization steps take place. Specifically: less coal and gas for power generation, more EV displacement of the existing internal combustion engine fleet and displacement of thermal heating by residential, commercial and industrial users with electric heat pumps[7]. All displaced fossil fuel energy would be replaced by green electrons from wind and solar power. Maybe nuclear and enhanced geothermal could play a role one day, but their costs are still too high or uncertain as to scale.

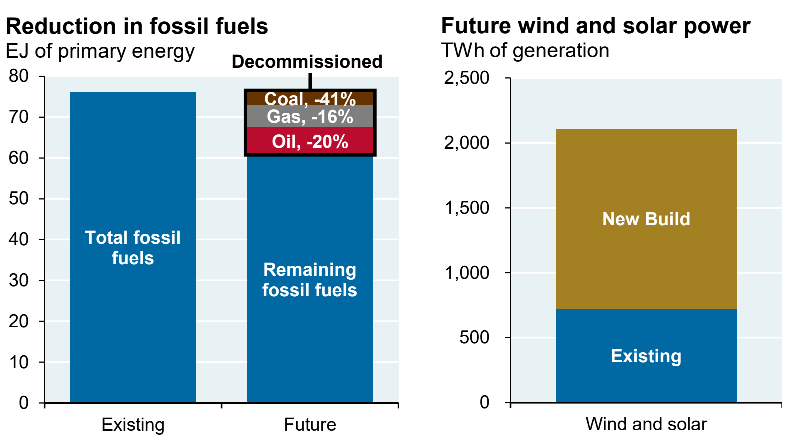
Possible contours of a more electrified, renewable future in the US

Segment	Currrent status	Decarbonization step
Power	Coal share of power generation: 15%	50% decline in coal fired generation
Power	Gas share of power generation: 43%	20% decline in gas fired generation
Transport	ICE passenger car share of the fleet: 97%	30% reduction in ICE passenger cars
Transport	Current ICE fleet miles per gallon: 23.4 (new sales 25.6)	10% improvement in ICE miles per gallon
Transport	ICE truck and bus share of the fleet: >99%	20% reduction in ICE trucks and buses
Heating	Fossil fuel share of residential heating: 56%	40% reduction in fossil fuels for residential heating
Heating	Fossil fuel share of commercial heating: 77%	30% reduction in fossil fuels for commercial heating
Heating	Fossil fuel share of low temperature industrial heating: 69%	25% reduction in fossil fuels for low temperature industrial heating

Source: Energy Institute, BloombergNEF, Department of Transportation, EPA, EIA, Energy Innovation, JPMAM, 2026

What would be the result? If all the steps above took place[8], US fossil fuel consumption would decline by 20%, a shift which would require wind and solar capacity to triple from current levels. Such a wind/solar footprint would take around 14 years based on the latest build rates, maybe a decade at slightly faster ones. For a country without a national carbon tax or a gasoline tax and declining renewable subsidies, this seems like a fever dream.

While some analysts call for a more rapid transition away from fossil fuels, others recommend that regions like Europe do more to source their own domestic oil & gas. Either way, to understand and appreciate the challenge, it's important to do the energy math by country and not get distracted by faster transitions in small countries with limited applicability to larger ones (the PUNIs and the PIEs). In other words, what's happening in Norway, Iceland, Costa Rica and Uruguay is great but has little bearing on large industrialized countries.



Source: Energy Institute, EIA, Renewable Thermal Collab, JPMAM, 2025

[7] EVs are 4x-5x more efficient than internal combustion engine cars at converting energy to motion, and heat pumps can convert one unit of electricity into 3-4 units of heat

[8] To be clear, these assumptions are aggressive. Replacing 30% of the US ICE fleet involves ~70mm new EVs on the road. The latest annual pace of BEV sales: around 860k per year according to Argonne National Labs. In other words, decades unless there's a step-change in EV adoption.

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