

OUT-POLLUTING PROGRESS:

Carbon Emissions From
Biden-Approved Fossil Fuel
Projects Undermine CO₂ Cuts
From Inflation Reduction Act

CENTER FOR BIOLOGICAL DIVERSITY • NOVEMBER 2023

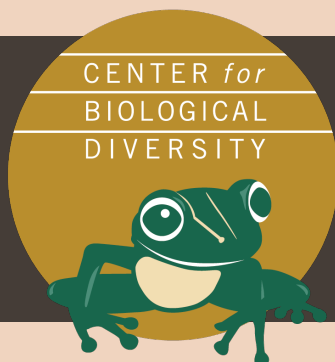
OUT-POLLUTING PROGRESS:

Carbon Emissions From Biden-Approved Fossil Fuel Projects
Undermine CO2 Cuts From Inflation Reduction Act

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Overview

The Biden administration's fossil fuel approvals threaten to erase the emissions progress projected under the Inflation Reduction Act and other climate policy.

Key Findings

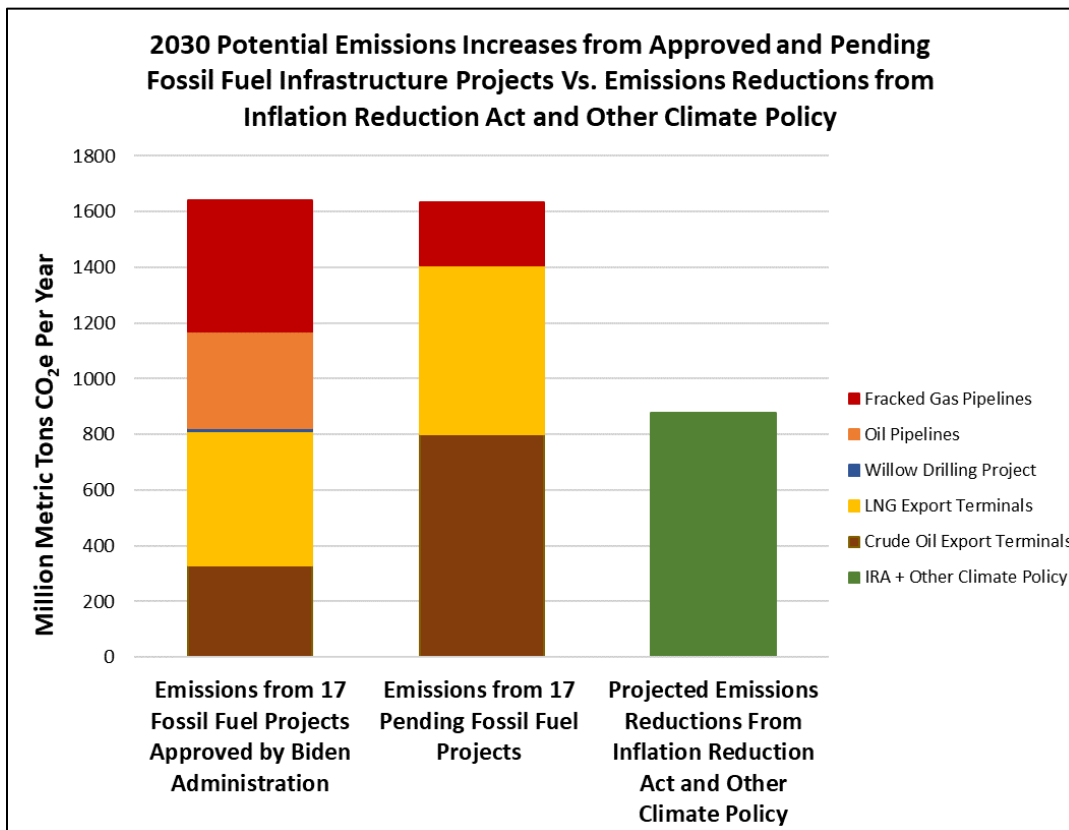
Finding 1: The Biden administration has approved many major new fossil fuel production and infrastructure projects, including 17 massive projects with the potential to release emissions totaling 1,642 million metric tons of CO₂e per year – the same as the annual emissions of 440 coal-fired power plants.

Finding 2: The emissions that will result from the Biden administration's fossil fuel project approvals are larger than the emissions reductions from the Inflation Reduction Act and other climate policies.

Finding 3: Each fossil fuel project approval worsens the interlinked climate, environmental justice, public health and biodiversity extinction crises created by the fossil fuel industry.

Finding 4: Stopping the approval of pending fossil fuel projects would have tremendous climate, health, justice and wildlife benefits.

Conclusion: The Biden administration's fossil fuel project approvals are undermining U.S. climate progress and sacrificing communities and wildlife to Big Oil and Gas. The Biden administration has a clear duty to use its extensive executive powers to implement a bold fossil fuel phaseout plan, starting by halting approval of new oil and gas projects.



Introduction

The climate crisis is a fossil fuel crisis. Fossil fuels are driving the global climate emergency. Oil, gas and coal are responsible for approximately 90% of human-caused CO₂ emissions in the U.S. and globally,¹ and are fundamentally “incompatible with human survival.”²

The 1.1°C of global heating to date, fueled by the fossil fuel industry, is escalating climate disasters that are killing people, causing ecosystem collapse, costing the U.S. economy hundreds of billions of dollars in damages every year, and increasing suffering across the nation and around the world.³ Fossil fuel development and the climate crisis also breed glaring injustice, with Black, Indigenous, other communities of color, and low-wealth communities being harmed first and worst.⁴

The science- and justice-based imperative to rapidly phase out fossil fuels could not be clearer. According to an international scientific consensus, governments must immediately stop approving new fossil fuel extraction and infrastructure and phase out existing fossil fuel development to limit temperature rise to 1.5°C and prevent catastrophic climate harms.⁵ This is the conclusion of expert assessments from the International Panel on Climate Change (IPCC), International Energy Agency (IEA), the United Nations and countless studies.⁶

A rapid fossil fuel phaseout is necessary not only to prevent irreversible climate catastrophe, but to stem the interlinked public health, environmental justice and biodiversity extinction crises worsened by the fossil fuel industry.

As a wealthy nation with a high capacity to manage a just transition to clean, renewable energy, as well as a dominant role in driving the climate crisis, the U.S. must rapidly phase out fossil fuel production and use.⁷ A Tyndall Centre report concluded that an equitable fossil fuel phaseout for the U.S. requires ending all oil and gas production by 2034 for a 50% chance of limiting temperature rise to 1.5°C and by 2031 for a 66% chance.⁸

The United States is Expanding Fossil Fuels

Despite the imperative to stop fossil fuel expansion, the U.S. is leading the world’s largest expansion of oil and gas production. The U.S. is now the biggest oil and gas producer in the world,⁹ and in 2023 U.S. oil production is projected to reach a historic high.¹⁰

The U.S. has also become a major fossil fuel exporter. Since the crude oil export ban was lifted in 2015, U.S. crude exports have increased by a whopping ~950%.¹¹ The U.S. is now the number one exporter of petroleum products¹² and the number one exporter of gas.¹³ As exports continue to grow, a new analysis has found that greenhouse gas emissions from U.S. fossil fuel exports are undermining the emissions reductions from the Inflation Reduction Act.¹⁴

While the Biden administration has periodically stopped fossil fuel projects, it has much more often greenlighted them. Approved projects include the Willow drilling project in the Alaskan Arctic, the Mountain Valley pipeline in Appalachia, massive oil and gas export terminals in Gulf Coast communities already overburdened by pollution, and record numbers of oil and gas drilling permits on public lands.¹⁵

Many of these projects have projected lifespans of 30 to 50 years that threaten to lock in carbon emissions and harm communities and wildlife in the long term.¹⁶ If allowed to proceed, U.S. fossil fuel expansion would lock in climate catastrophe.

On its current trajectory, the U.S. is also expected to account for a full third of planned oil and gas expansion globally between 2023 and 2050, marking the U.S. as the global “Planet Wrecker in Chief” according to a new analysis.¹⁷

In response to criticism of its fossil fuel expansion, the Biden administration points to its flagship accomplishment, the Inflation Reduction Act (IRA), and the reductions in fossil fuel demand that it is projected to achieve.

But while the IRA provides important incentives for clean, renewable solar and wind energy and clean technology such as electric vehicles, it simultaneously ties renewable energy development to new fossil fuel leasing on public lands and waters for the next decade, perversely expanding planet-heating fossil fuels.

The IRA also includes massive subsidies for ineffective, dangerous and expensive false solutions like carbon capture and storage (CCS) and fossil hydrogen that only perpetuate fossil fuel extraction and infrastructure, rather than enabling their needed phase out.¹⁸

We Need Policies that Decrease Fossil Fuel Supply

There is a fundamental conflict between reducing fossil fuel demand while simultaneously approving long-lifespan extraction and infrastructure projects that increase fossil fuel supply. Experts have repeatedly warned that policies to decrease fossil fuel supply *and* demand must go hand in hand to effectively reduce emissions and allow for a just transition away from fossil fuels.¹⁹

Analyses have cautioned that reducing U.S. fossil fuel demand without reducing supply will significantly undercut any domestic emissions reductions coming from demand-side policies.²⁰ The recent finding that emissions from U.S. fossil fuel exports are effectively erasing the IRA’s emissions reduction benefits is proof of that concept.²¹

In this analysis, we evaluated the estimated greenhouse gas emissions of major fossil fuel expansion projects that the Biden administration has approved, and the projected emissions from pending fossil fuel projects that the Biden administration could stop.

Specifically, we estimated the total annual emissions that would result from major fossil fuel infrastructure projects approved by the Biden administration and compared them with annual emissions reductions projected under the Inflation Reduction Act and other U.S. climate policy. We then estimated the annual emissions that would result from pending major fossil fuel infrastructure projects that could be stopped by the Biden administration during its remaining first term to highlight the additional emissions that could be prevented, were the Biden administration to choose to stop them.

Finally, to illustrate the wide-ranging harms of these projects, beyond their climate destruction alone, we evaluated the environmental justice, public health and biodiversity harms coming from three major projects that have been approved by the Biden administration: the Willow Oil Development Project in Alaska, the Sea Port crude oil export terminal on the Texas Gulf coast, and the Mountain Valley Pipeline in Appalachia.

Finding 1: The Biden administration has approved many major new fossil fuel production and infrastructure projects, including 17 massive projects with the potential to release emissions totaling 1,642 million metric tons of CO₂e per year – the same as the annual emissions of 440 coal-fired power plants.

We analyzed 17 massive fossil fuel production and infrastructure projects approved by the Biden administration²² that together have the potential to release emissions of 1,642 million metric tons CO₂e per year. These include the Willow Drilling Project, three oil pipelines, six fracked gas pipelines, one crude oil export terminal, four new liquified natural gas (LNG) export terminals and two LNG export terminal expansions.

Project Type	Project Name	Location/Route	Annual Emissions (MMT CO₂e)²³
Oil Drilling	Willow Master Development Project	North Slope, Alaska	10.8
Oil Pipelines	Dakota Access (DAPL)	North Dakota to Illinois	101
	Enbridge Line 3	Alberta to Wisconsin	175
	Enbridge Line 5	Wisconsin to Ontario	71
Fracked Gas Pipelines	Mountain Valley Pipeline (MVP)	West Virginia, Virginia	89.5
	Driftwood Line 200 and 300	Louisiana	201
	Gulf Run Pipeline (Line CP Modifications)	Louisiana, Texas	75
	Evangeline Pass Expansion	Louisiana, Mississippi	48
	Regional Energy Access Expansion Project	Maryland, New Jersey, Pennsylvania	36
	North Baja XPress Project	Arizona, California	22
Crude Oil Export Terminal	Sea Port Oil Terminal (SPOT)	Brazoria County, Texas	331
LNG Export Terminals	Rio Grande LNG	Brownsville, Texas	163
	Alaska LNG + Pipeline	North Slope to Cook Inlet, Alaska	121
	Port Arthur Trains 3 & 4 Expansion LNG	Port Arthur, Texas	82
	Commonwealth LNG	Cameron Parish, Louisiana	51
	Cameron Train 4 (Phase II Expansion) LNG	Hackberry, Texas	41
	Texas LNG Brownsville	Brownsville, Texas	24
Total			1,642

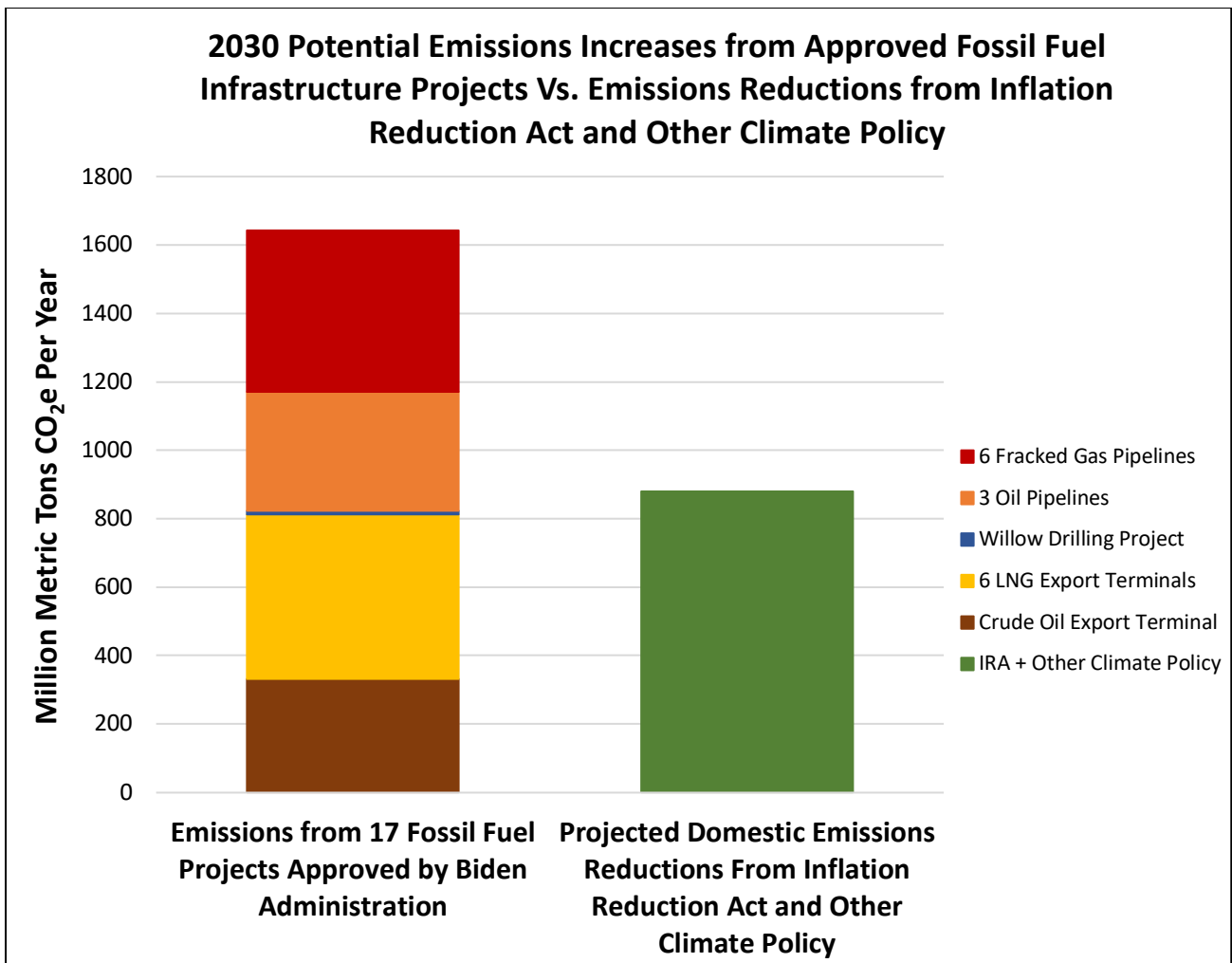
This total is an underestimate because it is a partial list of infrastructure projects and does not include other major fossil fuel production projects approved by the Biden administration. The administration has approved a massive amount of oil and gas extraction on federal public lands and waters. The lifetime climate pollution from these drilling projects is enormous, totaling 3,216 million metric tons CO₂e from 9,203 onshore drilling permits, 14 onshore lease sales, and three offshore lease sales. That’s equivalent to the annual emissions of 861 coal-fired power plants — not including the emissions from 1,176 offshore drilling permits and a pending offshore lease sale. We did not include these extraction projects because some of their oil and gas production may be handled by the pipeline and export terminal infrastructure included in our analysis. However, a substantial portion of the emissions from these leasing and drilling projects is additional to the emissions from the infrastructure projects analyzed.

Approved Oil and Gas Extraction Projects <i>Not Included</i> in Our Emissions Totals	Location	Emissions Over Lifetime (MMT CO₂e)²⁴
Onshore Drilling Permits (9,203 permits)	Federal Public Lands NM, WY, ND, AK, UT, LA, CA, TX, CO, OK, MI, MO, NV, SD, AR	1,291
Onshore Oil and Gas Lease Sales (14 lease sales)	NM, MO, NV, WY, CO, Eastern States	61
Offshore Oil and Gas Lease Sale 257	Gulf of Mexico	925
Offshore Oil and Gas Lease Sale 259	Gulf of Mexico	925
Offshore Oil and Gas Lease Sale 261	Gulf of Mexico	Scheduled for December 20, 2023
Cook Inlet Lease Sale 258	Cook Inlet, Alaska	14
Offshore Drilling Permits (1,176 development permits)	Federal Offshore Waters	Not determined
Total		3,216

Finding 2: The emissions that will result from the Biden administration’s fossil fuel approvals are larger than the emissions reductions from the Inflation Reduction Act and other climate policies.

The total annual emissions from 17 major fossil fuel projects approved by the Biden administration (1,642 million metric tons CO₂e per year) greatly exceed the annual domestic emissions reductions projected to result from the IRA and other climate policy (879 million metric tons CO₂e per year) in 2030 as modeled by the U.S. Energy Information Administration. **Thus, the Biden administration’s fossil fuel approvals threaten to erase the emissions progress projected under the IRA and other climate policy.**

The emissions reductions from the IRA and other climate policy occur domestically while the emission increases from U.S. fossil fuel projects occur domestically and also abroad when U.S. fossil fuels are exported. Both domestic and exported emissions from U.S. fossil fuels should be accounted for since they worsen the climate emergency regardless of where they are emitted.²⁵



Finding 3: Each fossil fuel project approval worsens the interlinked climate, environmental justice, public health and biodiversity extinction crises created by the fossil fuel industry.

The fossil fuel industry’s extraction and infrastructure projects not only worsen the climate crisis through their greenhouse gas emissions but emit health-harming pollution,²⁶ threaten catastrophic leaks and spills, degrade ecosystems,²⁷ jeopardize local livelihoods, and push vulnerable species toward extinction.²⁸ One in five premature deaths worldwide are caused by fossil fuel particulate pollution.²⁹ Fossil fuel pollution disproportionately harms communities of color and low-wealth communities and perpetuates the systemic racism entrenched in the nation’s fossil fuel energy system.³⁰ One million animal and plant species are now threatened with extinction, with fossil-fueled climate change as a primary driver.³¹

These harms are well-documented and wide-ranging. Each fossil fuel project approval deepens the public health, environmental justice and biodiversity extinction crises created by fossil fuel industry.

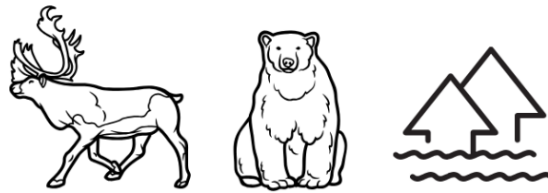
We illustrated the harms from three major projects that have been approved by the Biden administration: the Willow Oil Development Project in Alaska, the Sea Port crude oil export terminal on the Texas Gulf coast, and the Mountain Valley Pipeline in Appalachia.

Willow Drilling Project Alaskan Arctic



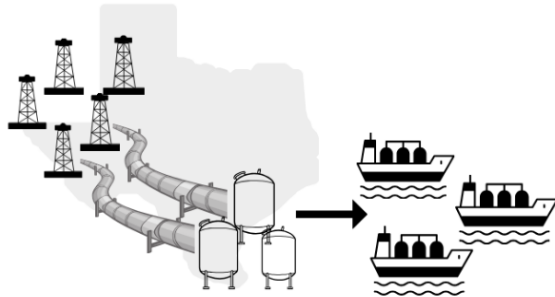
- Nearly 200 oil wells
- 100s of miles of pipelines and roads
- Gravel mining, processing facility, airstrip

Harms



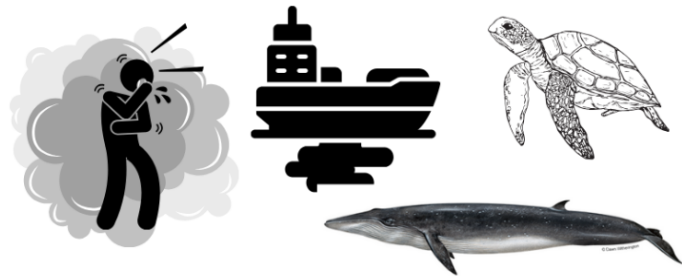
- Jeopardizes the health and traditional practices of Alaska Native communities
- Disturbs denning mother polar bears and threatens cub survival, harms caribou and migratory birds
- Opens access to massive planned oil and gas extraction in the largest undeveloped area in the US
- Worsens the Arctic meltdown

Sea Port Oil Terminal Gulf Coast



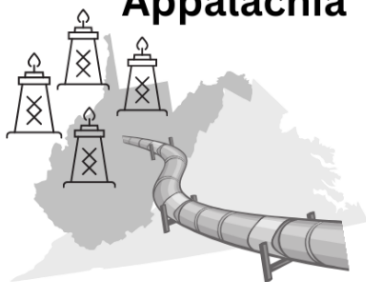
- 140 miles of land-based and underwater pipeline transport 2 million barrels of crude oil per day to an offshore platform
- Loads crude oil into world's largest oil tankers

Harms



- Air and water pollution harm the health and livelihoods of overburdened frontline communities
- Oil spills threaten endangered Rice's whales, sea turtles, and the marine ecosystem
- Pipelines cross 129 water bodies en route to the coast, threatening wetlands and drinking water

Mountain Valley Pipeline Appalachia



- 301 mile pipeline crosses through communities, waterways, and forests
- Capacity to carry 2 billion cubic feet of gas per day

Harms

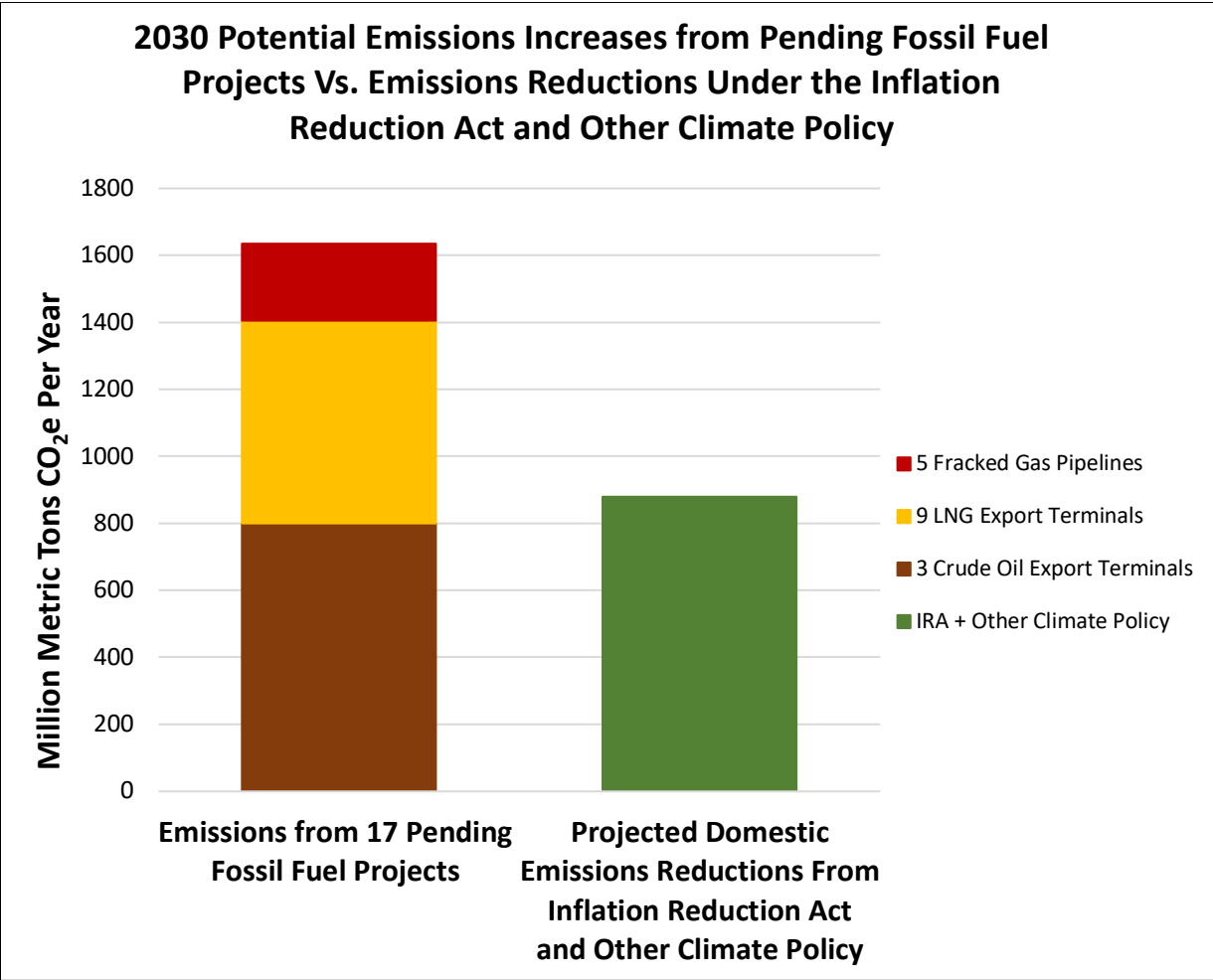


- Air pollution, landslide, and explosion risks
- Threatens Indigenous sacred sites
- Harms endangered fish: candy darters (known as "underwater rainbows") and Roanoke perch
- Causes deforestation; crosses and threatens 1,100+ streams, creeks and wetlands

Finding 4: Stopping the approval of pending fossil fuel projects would have tremendous climate, health, justice and wildlife benefits.

We analyzed 17 additional major fossil fuel infrastructure projects that the Biden administration has the legal authority to stop during its remaining first term. The projects are five fracked gas pipelines, three crude oil export terminals, and nine LNG export terminals, including two new deepwater terminals, five new onshore terminals, and two expansions of existing onshore terminals. **If approved, these projects could collectively emit 1,634 million metric tons CO₂e per year, nearly twice the annual domestic emissions reductions projected to result from the IRA and other climate policy (879 million metric tons CO₂e per year in 2030).** Stopping these and other pending projects would have tremendous benefits for the climate, community health and well-being, and wildlife.

Project Type	Project Name	Location/Route	Annual Emissions (MMT CO₂e)³²
Fracked Gas Pipelines	Saguaro Connector Pipeline	Permian Basin, Texas	124
	Venice Extension Pipeline	Plaquemines Parish, Louisiana	55
	Southside Reliability Enhancement	North Carolina, Virginia	18
	Texas to Louisiana Energy Pathway	Texas	16
	Ohio Valley Connector Expansion	Ohio, Pennsylvania, West Virginia	15
Crude Oil Export Terminals	Blue Marlin Offshore Port	Coastal Texas and Louisiana; offshore	317
	Bluewater Texas Terminal	Coastal Texas; offshore	317
	Texas GulfLink	Brazoria County, Texas; offshore	165
LNG Export Terminals	Calcasieu Pass 2 LNG (CP2)	Cameron Parish, Louisiana	190
	Delta LNG	Plaquemines Parish, Louisiana	136
	Sabine Pass Expansion Stage V	Cameron Parish, Louisiana	121
	West Delta LNG Deepwater Port	Plaquemines Parish, Louisiana; offshore	37
	Gulfstream LNG	Plaquemines Parish, Louisiana	30
	Port Fourchon LNG	Lafourche Parish, Louisiana	30
	Gibbstown/Repauno Works LNG	East Greenwich Township, New Jersey	26
	Corpus Christi Midscale Expansion LNG	Corpus Christi, Texas	20
	New Fortress Grand Isle FLNG	Grand Isle, Louisiana; offshore	17
Total			1,634



Conclusion

The Biden administration’s fossil fuel project approvals are significantly undermining U.S. climate progress. Despite its claims that it’s advancing climate goals, the Biden administration is actively erasing the projected emissions reductions of its flagship Inflation Reduction Act and other demand-side climate policies by expanding fossil fuel extraction and infrastructure projects. This expansion ignores the unequivocal scientific imperative to immediately stop approving new fossil fuel extraction and infrastructure projects — and rapidly phase out existing extraction and infrastructure — to prevent catastrophic harms to people and the planet.

Demand-side incentives for renewable energy alone are not enough. Keeping fossil fuels in the ground is essential to stemming a crisis driven by fossil fuels. The Biden administration must rapidly phase out fossil fuel supply in parallel with reducing demand.

The Biden administration has to stop allowing Big Oil and Gas to harm people and the planet. Fossil fuel projects are not in the public interest, which the federal government is required to uphold and protect. With every greenlighted project, the fossil fuel industry unleashes devastating, wide-ranging harms to the climate, communities, wildlife and the air and water we all depend on. Yet equitable, affordable, clean renewable energy alternatives already exist that can do the job, while protecting people and the planet.³³ The Biden administration

has a duty to stop doing the bidding of the deceptive, dangerous fossil fuel industry and defend communities and wildlife.

The Biden administration must implement a fossil fuel phaseout plan, starting with halting approvals for new fossil fuel projects. The Biden administration has extensive executive powers and ample tools to implement a bold plan to phase out fossil fuels starting today.³⁴ Essential actions for the Biden administration to take now include:

- Stop approvals of new fossil fuel projects like the massive CP2 liquified natural gas export terminal slated for the Gulf Coast.
- Revoke permits for fossil fuel projects including the Willow Drilling Project; pipeline projects including Mountain Valley Pipeline, Dakota Access Pipeline, and Enbridge Line 3 and 5 pipelines; the massive Sea Port crude oil export terminal; and LNG export terminals in Alaska and along the Gulf Coast.
- Phase out oil and gas production on public lands and waters by instituting a managed phase down policy.³⁵
- Revise the offshore oil leasing “Five Year Plan” with no new leases.
- Declare a national climate emergency to reinstate the crude oil export ban and halt hundreds of billions in private taxpayer dollars funding fossil fuel projects abroad.
- Direct the Justice Department to investigate and prosecute polluters and utilities, where appropriate, under nuisance and fraud suits for the damages they cause — as Gov. Gavin Newsom has just done in California³⁶ — and bring antitrust violation suits against entities that obstruct the transition to clean energy.³⁷

The Biden administration must also come to COP28 in December with commitments to an updated Nationally Determined Contribution that includes a commitment to stopping all new fossil fuel expansion and phasing out existing production.

Methodology

A detailed methodology for this analysis is provided in a companion document.³⁸ Several caveats to this analysis, which are discussed in depth in the methodology, could result in our estimates under-counting or over-counting the emissions from these projects: (1) We did not analyze all the fossil fuel projects that have been approved or are pending approval by the Biden administration because of the large number of projects, but instead selected a subset of major infrastructure projects associated with the highest emissions potential, leading to an underestimate of the potential emissions from approved and pending projects; (2) we did not attempt substitution analysis for these fossil fuel projects because it was beyond the scope of analysis and because of the high degree of uncertainty inherent in such analyses and their frequent use of unfounded assumptions;³⁹ and (3) we evaluated the potential overlap of the fossil fuel projects included in our analysis, to avoid double-counting emissions from projects that would handle the same fossil fuels. For example, we did not include the Biden administration’s permitting of federal onshore and offshore oil and gas leases, or its approvals for permits to drill on public lands and waters, because some of the oil and gas production from these lease sales and drilling permits may be handled by the pipeline and export terminal infrastructure included in our analysis.

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¹² According to data from OPEC, in 2022 the U.S. was the world's fourth largest exporter of crude oil, the top exporter of petroleum products, and the top exporter of crude oil and petroleum products combined. See https://asb.opec.org/data/ASB_Data.php: Table 5.2: World crude oil exports by country; Table 5.3: World exports of petroleum products by country; and Table 5.5: World exports of crude oil and petroleum products by country. Note that the 2022 total of 9,577,000 bbl/day of crude oil and petroleum product exported from the U.S. according to OPEC data closely matches the U.S. EIA estimate for crude oil and petroleum product exports in 2022 of 9,520,000 bbl per day (see https://www.eia.gov/dnav/pet/pet_move_exp_dc_NUS-200_mbbblpd_a.htm).

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²¹ Symons, Jeremy, New Study Finds Rising Exports of Oil and Gas Undermines U.S. Action to Reduce Emissions (September 15, 2023), <https://www.symonspa.com/post/new-study-finds-rising-exports-of-oil-and-gas-undermines-u-s-action-to-reduce-emissions>

²² Numerous executive branch agencies have permitting authorities for fossil fuel infrastructure and extraction projects and can deny and even revoke permits. We recognize that the Federal Energy Regulatory Commission (FERC), which plays a key permitting role for LNG terminals and gas pipeline projects, is an independent federal agency, with some commissioners appointed by the prior administration (and one critical seat currently vacant), so it is somewhat different than other federal agencies. However, even when FERC is an approver, other executive branch agencies must also issue approvals such as the Army Corps of Engineers, Department of Energy, and Fish and Wildlife Service, as detailed further in the methodology.

²³ Emissions estimates are from the following sources as described in the detailed methodology for this report: estimates for the Willow Development Project, fracked gas pipelines (except MVP), and crude oil export terminals are calculated by this analysis; estimates for MVP and crude oil pipelines are from Oil Change International (OCI, Gas Pipeline Climate Methodology: Calculating Greenhouse Gas Emissions For Natural Gas Infrastructure (Winter 2017), <https://priceofoil.org/content/uploads/2017/02/Gas-Pipeline-Methodology-2017-Web-Final.pdf>); OCI, Greenhouse Gas Pollution of Estimates of Proposed U.S. Fossil Fuel Infrastructure Projects (October 2021), https://priceofoil.org/content/uploads/2021/10/Biden_GHG_emissions_briefing.pdf); estimates for LNG export terminals

are from the Sierra Club (U.S. LNG Export Tracker, 2023, <https://www.sierraclub.org/dirty-fuels/us-lng-export-tracker>)

²⁴ Emissions calculations for these oil and gas production projects are described in the detailed methodology for this report.

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²⁸ Barnosky, Anthony D., Transforming the global energy system is required to avoid the sixth mass extinction, 2 MRS Energy and Sustainability E10 (2015), <https://doi.org/10.1557/mre.2015.11>; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Global Assessment Report (May 6, 2019), <https://www.ipbes.net/news/Media-Release-Global-Assessment>

²⁹ Vohra, Karn et al., Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem, 195 Environmental Research 110754 (2021), <https://doi.org/10.1016/j.envres.2021.110754>

³⁰ See Bullard, Robert D. et al., Toxic Wastes and Race at Twenty: 1987-2007 (March 2007), <http://www.ejnet.org/ej/twart.pdf>; Donaghy, Timothy Q. et al., Fossil fuel racism in the United States: How phasing out coal, oil and gas can protect communities, 100 Energy Research & Social Science 103014 (2023), <https://doi.org/10.1016/j.erss.2023.103104>

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³² Emissions estimates are from the following sources as described in the detailed methodology for this report: estimates for fracked gas pipelines and crude oil export terminals are calculated by this analysis; estimates for LNG export terminals are from the Sierra Club (U.S. LNG Export Tracker, 2023, <https://www.sierraclub.org/dirty-fuels/us-lng-export-tracker>)

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³⁸ Methodology at https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Center-for-Biological-Diversity-2023_Methodology-for-Out-Polluting-Progress.pdf

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