



Inflation Reduction Act: A Historic Investment in Climate, Communities, and Jobs

On August 16, 2022, President Biden signed the Inflation Reduction Act. This landmark legislation makes a historic commitment to climate action that will drive innovation and deployment of clean energy, industrial and manufacturing technologies, and infrastructure to put our nation on track to meet the President’s ambitious goal of achieving net-zero emissions economy-wide by 2050, while investing in communities and American workers.

The Inflation Reduction Act features a comprehensive package of clean energy and industrial tax credits, including the most ambitious incentives in the world to date for the deployment of carbon management technologies, such as carbon capture, direct air capture, and the conversion of captured carbon emissions into useful products.

Substantial improvements to the federal 45Q tax credit include increased credit values to \$85 per ton of carbon emissions captured and stored from industrial facilities and power plants and \$180 per ton for direct air capture facilities¹; an extension of the credit for a full ten years (i.e. all projects beginning construction by the end of 2032); the ability to claim the credit for 12 years of operation, directly as a cash payment for the first five years of operation and the ability to transfer the credit to outside investors for the remaining seven years; and expanded eligibility for smaller industrial, power generation and direct air capture facilities.

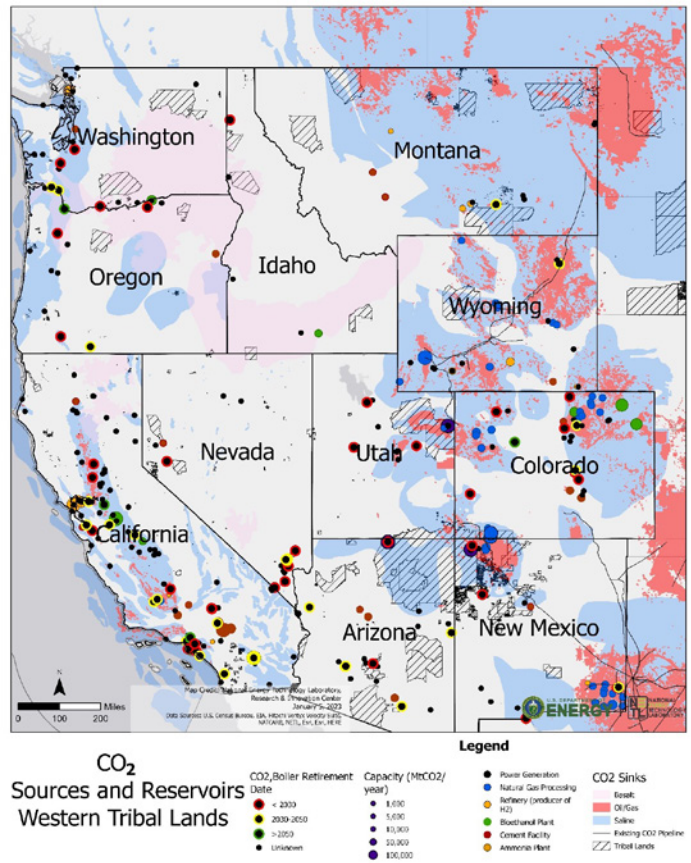
Potential for Carbon Management and Emission Reductions for Tribal Nations

As home to large coal, oil and natural gas reserves, Tribal communities, workers, and industries have the opportunity to benefit from enhancements to the 45Q credit and other provisions in the Inflation Reduction Act. The map below highlights the facilities by industry across Tribal nations that could potentially qualify for the 45Q tax credit, which can be used for carbon capture, carbon conversion, and direct air capture projects.

The map also shows the geologic formations available across Tribal nations for safe and permanent storage of carbon dioxide (CO₂) emissions captured from industry.

Finally, the table shows the potential capturable carbon dioxide emissions of industrial facilities and power plants in western Tribal nations that could potentially qualify for the 45Q tax credit. Tax incentives in the Inflation Reduction Act, coupled with U.S. Department of Energy funding and financing for technology and infrastructure investments through the Bipartisan Infrastructure Law, have the potential to enable significant reductions in total carbon dioxide emissions for Tribal Nations, while leveraging their existing energy and mineral resources for the economic, social, and environmental benefits of Tribal members and their communities. Additionally, state tax credits and other crediting mechanisms incentivize carbon capture and storage development in California, Montana, and North Dakota, which will share common carbon management infrastructure with Tribal governments.

Figure 1: The sites outlined here could potentially qualify for the section 45Q tax credit



¹ Increased credit values for storage in saline geologic formations

Table 1: Potential 45Q-eligible carbon dioxide emissions sources capturable in western states and on Tribal nations

	Mapped Area		Tribal Nations	
	# Facilities	CO ₂ emissions (MtCO ₂ eq/yr)	# Facilities	CO ₂ emissions (MtCO ₂ eq/yr)
Power Generation	285	1,419,600,048	7	4,045,757
Natural Gas Processing	60	6,012,104	3	392,393
Refining (with onsite hydrogen production)	21	5,971,777	2	121,003
Cement	23	16,913,528	0	0
Bioethanol	8	730,652	0	0
Ammonia	1	446,633	0	0

Table 2: Potential 45Q-eligible carbon dioxide emissions sources capturable on Tribal lands

		CO ₂ Sources					
		Natural Gas Processing		Refining (with onsite hydrogen production)		Power Generation	
State	Tribes	# Facilities	CO ₂ emissions (MtCO ₂ eq/yr)	# Facilities	CO ₂ emissions (MtCO ₂ eq/yr)	# Facilities	CO ₂ emissions (MtCO ₂ eq/yr)
Arizona	Fort Mojave Reservation	0	0	0	0	2	43,313
California	Cabazon Reservation	0	0	0	0	2	478,696
Colorado	Southern Ute Reservation	2	435,597	0	0	0	0
New Mexico	Navajo Nation Reservation	0	0	0	0	2	6,992,593
Utah	Cabazon Reservation & Uintah and Ouray Reservation	1	2,946	0	0	1	32,942,968
Washington	Samish TDSA	0	0	2	121,003	0	0
TOTAL		3	392,393	2	121,003	7	4,045,757

About the Office of Fossil Energy and Carbon Management

The U.S. Department of Energy’s Office of Fossil Energy and Carbon Management minimizes environmental and climate impacts of fossil fuels and industrial processes while working to achieve net-zero emissions across our economy.

Priority areas of technology work include carbon capture, carbon conversion, carbon dioxide removal, carbon dioxide transport and storage, hydrogen production with carbon management, methane emissions reduction, and critical minerals production.

References

Department of Energy; <https://www.doe.gov>

Industrial CO₂ Capture Retrofit Database (IND CCRD), 2022. National Energy Technology Laboratory, U.S. Department of Energy. <https://netl.doe.gov/energy-analysis/details?id=a9f14d58-52d3-4a06-85cc-33d5cba5c895>

NATCARB, Atlas V



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