

JOBS AND ECONOMIC IMPACT OF CARBON CAPTURE DEPLOYMENT Montana

TOTAL JOBS POTENTIAL

Project Jobs	Operations Jobs	Infrastructure Jobs
1,325	940	510

Montana has the opportunity to create an annual average of up to **1,835 project jobs** over a 15-year period and **940 ongoing operations jobs** through the deployment of carbon capture at seven industrial and power facilities. The retrofit of equipment at these facilities would capture **12.5 million metric tons** of carbon dioxide (CO₂) per year. Along with the development of CO₂ transport infrastructure, this would generate up to **\$4.8 billion** in private investment.

CREATING JOBS & CAPTURING CARBON

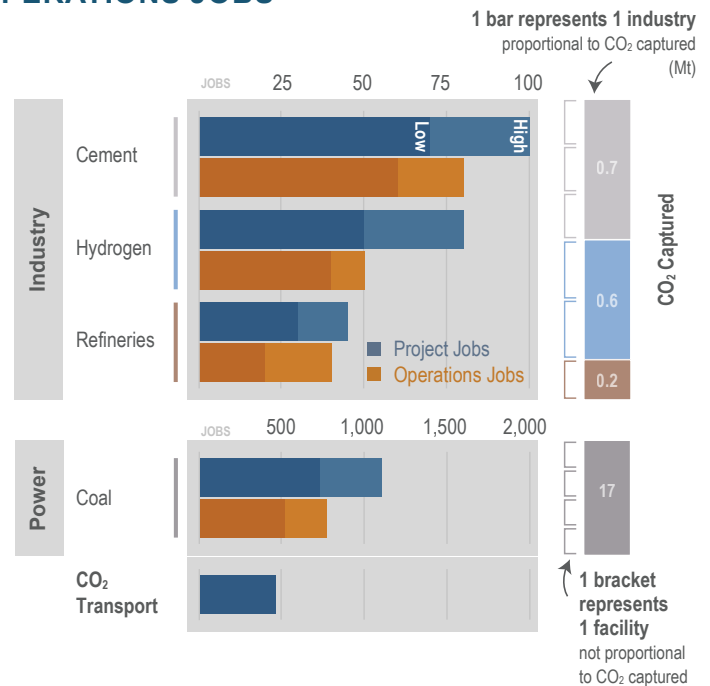
Carbon capture is essential to meeting mid-century emissions reduction goals while retaining and growing a domestic base of high-wage energy, industrial, and manufacturing jobs. Carbon capture retrofits require facilities to be outfitted with capture technologies such as amine scrubbers to remove CO₂ from exhaust gas and compressors to make the CO₂ transport-ready, that are dependent upon the type of industrial plant and vary across industries and facilities. There are jobs associated with the equipment, materials (e.g., cement and steel), engineering, and labor required to install the capture technology, as well as ongoing jobs to operate and maintain the retrofits. These are referred to as **project jobs** and **operations jobs**.

Rhodium Group performed an economic analysis based on the Regional Carbon Capture Deployment Initiative's near- and medium-term capture potential scenario.¹ The Rhodium analysis quantifies the economic impact and employment opportunities of carbon capture retrofit projects by deploying state-specific data in the IMPLAN economic model. The analytical results measure the impact of project investment and operation costs through expected annual jobs. Average annual project jobs were calculated assuming deployment of all projects within the 15-year period from 2021-2035. The jobs reported are in-state jobs, directly associated with carbon capture retrofits. They do not include other jobs at the facilities, nor indirect and induced jobs.

CARBON CAPTURE JOBS AND ECONOMIC IMPACT SUMMARY

Industry	Number of Facilities	Total Capture Target Metric Tons	Private Investment Million Dollars	Annual Average Project Jobs 2021-2035	Annual Operations Jobs
Cement	3	700,000	\$190 - \$290	70 - 100	60 - 80
Coal Power	1	11,000,000	\$2,300 - \$3,400	730 - 1,100	520 - 770
Hydrogen	2	600,000	\$80 - \$120	30 - 45	20 - 40
Refineries	1	200,000	\$90 - \$140	50 - 80	40 - 50
CO ₂ Transport Infrastructure	-	-	\$870	510	-

ANNUAL PROJECT AND OPERATIONS JOBS



Mt = million metric tons.

This figure depicts the low and high range of estimated annual average project jobs, transport infrastructure jobs, and ongoing operations jobs that could be created through carbon capture retrofits at industrial and power facilities in Montana. The potential amount of CO₂ captured and the number of potential near- or medium-term capture facilities in each industry are shown on the right.

RESULTS

Montana's cement, refineries, and hydrogen industries hold great potential for carbon capture retrofit and combined, can create an annual average of up to 225 project jobs and 170 ongoing operations jobs while capturing over one million metric tons of CO₂ per year. One of Montana's coal power plants can create an annual average of up to 1,100 project jobs and 770 ongoing operations jobs while capturing 11 million metric tons of CO₂ per year. The development of CO₂ transport infrastructure would create an annual average of 510 project jobs.

¹ Rhodium Group analytical results: rhg.com/research/