



SCIENCE & TECHNOLOGY

World's Largest Carbon Capturing Plant Launches in Iceland

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A Swiss company that developed technology to capture carbon dioxide from the air says it has launched the world's largest plant to do so in Iceland.

The company is called Climeworks AG. It said the plant began operations on Wednesday. The plant is not far from Iceland's capital, Reykjavik.

The system captures carbon dioxide, CO₂, directly from the air and then **deposits** the gas underground. The company partnered with Icelandic carbon storage provider Carbfix on the project.

Climeworks says the plant is designed to capture up to 3,600 metric tons of CO₂ per year. That is the same amount of CO₂ produced by about 790 automobiles during a year, Reuters news agency reported.

The International Energy Agency, IEA, estimates that this year, CO₂ **emissions** worldwide will rise 1.5 billion metric tons to a total of 33 billion metric tons.

Direct air capture is one of the few technologies that can remove carbon dioxide directly from the atmosphere. Many scientists see the process as critical to limiting harmful pollutant emissions.

Such emissions are caused mainly by human activities. They can trap heat in the atmosphere and create higher temperatures. Many scientists blame this warming for increased heatwaves, wildfires, floods and rising sea levels across the world.

The new plant is called Orca. Its name is based on the Icelandic word for energy, Orka. It uses eight large containers that look like those used in the shipping industry. A series of high-tech **filters** and **blowers** attached to the containers capture CO₂.

The captured carbon is then mixed with water and pumped deep underground, where it slowly turns into rock. Both technologies are powered by **renewable** energy from a nearby **geothermal** plant.

Direct air capture is still a new and costly technology. But developers hope to bring down the price by increasing operations as more companies and individuals seek the technology.

Currently, there are 15 direct air capture plants operating worldwide. The IEA estimates the plants capture more than 9,000 metric tons of CO₂ per year.

The American oil company Occidental is currently developing the largest direct-air-capture center. It aims to pull 1 million metric tons of carbon dioxide from the air around some of its Texas oilfields.

I'm Bryan Lynn.

Reuters reported this story. Bryan Lynn adapted the report for VOA Learning English, with additional information from Climeworks and the IEA. Ashley Thompson was the editor.

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Words in This Story

deposit – *v.* to put something down somewhere

emission – *n.* the act of producing or sending out something (such as energy or gas) from a source

filter – *v.* to pass a liquid or gas through a piece of equipment to remove solid pieces of other substances

renewable – *n.* any naturally occurring kind of energy, such as sunlight or wind

geothermal – *adj.* related to heat produced from inside the Earth

subscription – *n.* an amount of money paid to regularly receive a product or service
