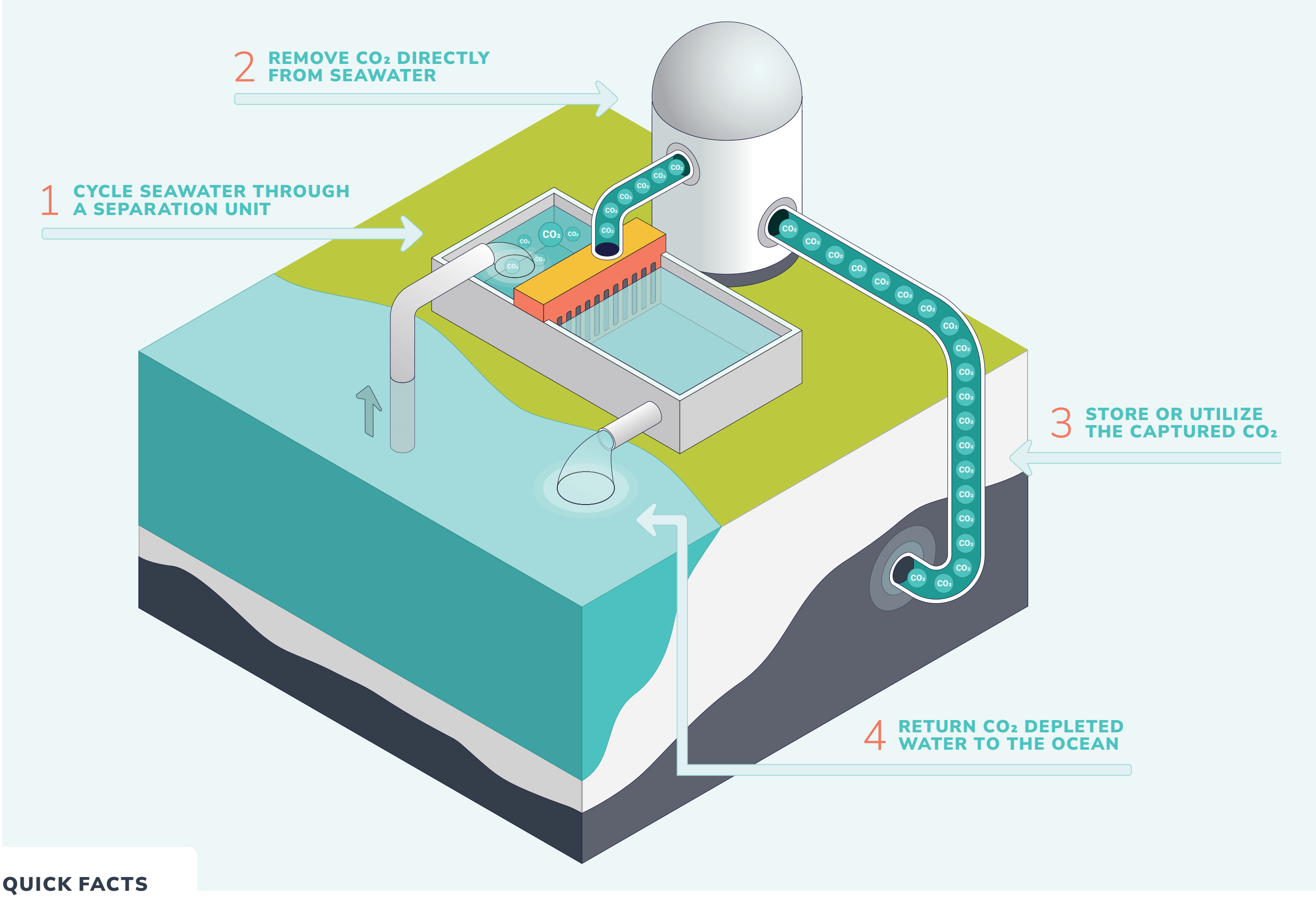
Carbon removal is Direct Ocean Removal

carbon removal canada

Filtering carbon from our seas



QUICK FACTS

- Future Estimated Cost: \$100 - \$350 per tonne of CO_2
- Potential 2050 Global Capacity: 100M - 1B tonnes of CO_2 per year

What is carbon removal?

Carbon removal is the process of cleaning up carbon dioxide (CO_2) *already in the atmosphere* and storing it away for centuries or longer. Even if we cut emissions significantly, Canada cannot reach net-zero without also scaling carbon removal solutions to counterbalance any residual emissions. Beyond net-zero, carbon removal can help tackle historical emissions and turn back the clock on the worst impacts of climate change.

Carbon removal's potential in Canada

Carbon removal isn't just climate action, it's also an economic opportunity. Our research shows it will create jobs, position Canadian industries to compete globally, and make net-zero dramatically more affordable.

$80B economic boost to Canadian GDP

$13B in annual investment catalyzed across Canadian industries

40% - 70% cost savings on Canada's path to net-zero

How does Direct Ocean Removal work?

Think of: A water treatment facility.

The ocean naturally absorbs CO_2 from the atmosphere like a giant sponge. While this helps reduce carbon in the air, it makes seawater more acidic, which endangers marine life and threatens fisheries. Direct Ocean Removal (DOR) reverses this damage while removing carbon for storage.

DOR technologies work like sophisticated water filters. They extract dissolved CO_2 then either store the carbon deep underground in geological formations or convert it into useful products. Once the treated water flows back into the ocean, it can absorb fresh CO_2 from the atmosphere, creating a continuous removal cycle

This approach does double duty: it cleans up acidified waters to protect marine ecosystems, while also permanently removing carbon from the atmosphere. Healthier oceans mean healthier fisheries and stronger coastal communities that depend on them.

DOR offers Canada a chance to protect marine resources worth billions to our economy while building a new industry. The technology leverages Canada's existing water treatment expertise and underground storage capabilities, creating economic returns from safeguarding our oceans and the communities that rely on them.

Why Canada?

1. **WORLD'S LONGEST COASTLINES**
Canada has more coastal access than any other country, providing unparalleled opportunities for large-scale ocean deployment

2. **ESTABLISHED MARINE INDUSTRIES**
Existing shipping, offshore energy, and fisheries sectors provide workforce expertise and infrastructure for ocean-based operations

3. **GEOLOGICAL STORAGE CAPACITY**
Canada has extensive geological sequestration potential, with up to 389B tonnes currently explored across Canada, and significant amounts expected offshore.

Co-benefits from DOR

RESTORE FISH HABITATS
DOR's reduces ocean acidification, which is key to restoring marine ecosystems. This restoration facilitates the return, breeding, and rebuilding of salmon and other marine populations.

RURAL COMMUNITY JOB CREATION
DOR's flexibility in site location makes it ideal for rural economic development, creating jobs in communities across Canada.

INDUSTRIES SUPPORTED

Fishing   Renewable Fuels

Project snapshot

Captura's pilot system, currently located in the Port of Los Angeles.

CAPTURA
Quebec. *Planned.*

EQUATIC
Quebec. *Planned.*

Canada's carbon removal capacity across technologies

106K	12.4M
Current	Planned

12M TONNES OF CARBON REMOVAL CAPACITY IS EQUIVALENT TO:

- Taking 3.6M cars off the road
- Completely decarbonizing all domestic air travel

Canada is ready for removal

Visit the Carbon Console to explore more projects, technologies, and companies