Carbon Cleanup Initiative

SCIENCE SERVING HUMANITY

Climate Change is the defining issue of our generation.

What do you need to know to make a difference?

About

In 2020, Lawrence Livermore National Lab (LLNL) issued its seminal research report, Getting to Neutral, providing an achievable roadmap to carbon neutrality by 2045.

From this report, the Livermore Lab Foundation and LLNL developed the Carbon Cleanup Initiative. This public service project serves as a community outreach and educational program, sharing the fundamental and scientific principles of carbon capture, mitigation, removal and storage.

Community Outreach

Technical resources to help communities explore climate change and carbon management solutions with stakeholders.

Research

Access to LLNL's scientific expertise that is leading the development of an achievable roadmap to carbon neutrality.

Educational Toolkit

Made by educators for educators, a no-cost carbon neutrality educator-student toolkit, designed for the 9-14 grade learner.

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www.carboncleanupinitiative.org

Rooted in Research

California has an ambitious goal to become carbon neutral by 2045. To do so, California will have to remove approximately 125 million tons per year of CO_2 from the atmosphere – using both existing resources and mature technologies, as well as planning for and investing in new carbon removal strategies and underground carbon storage capabilities.

LLNL's Getting to Neutral report identified three specific pillars to achieve carbon neutrality:

Natural and Working Lands

Waste Biomass Conversion to Fuels with CO_2 Storage

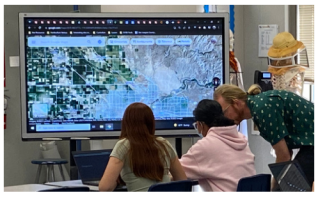
Direct Air Capture with CO_2 Storage

Climate in the Classroom

In the 2021-22 school year, LLF piloted the Carbon Cleanup Initiative's educational toolkit in 30 classrooms across California. Student learning materials are based on Next Generation Science Standards (NGSS). They can be used in all 9-14 general science (Biology, Chemistry, Physics, Environmental Science) courses and in classes aligned with Green Technology/Engineering learning concepts. Climate in the Classroom serves as an interactive and immersive educational unit that brings climate issues and carbon solutions into dynamic student discussions and group activities.

"The Carbon Cleanup Initiative's educational toolkit activities really helped my students understand climate change and the importance of getting to carbon neutrality."

Joey Rodriguez, Teacher
Livermore High School



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