# Verra Introduces Modular Methodology VM0049 for Carbon Capture and Storage in Voluntary Carbon Market



Verra, a leading non-profit Voluntary Carbon Market (VCM) registry in the United States, has introduced its Verified Carbon Standard (VCS) modular methodology VM0049 for carbon capture and storage (CCS). This global framework aims to facilitate technology-based CCS activities to generate carbon dioxide removals (CDRs) and emission reductions, crucial for corporate net-zero strategies.

CCS captures CO2 from the atmosphere or high-emission industrial sources, following which it is transported and stored underground, offering a solution to emissions from tough sectors such as industrial manufacturing, oil and natural gas, and power generation. Verra’s VM0049 designed the framework letting projects select from varied modules for CO2 capture, transport, and storage, which can be tailored to meet specific design and technological needs. The modular format is adaptable for project expansions and innovations.

Initial modules set for upcoming launch include activities like direct air capture, CO2 transportation, and CO2 storage in saline aquifers and depleted oil and gas reservoirs. Additional modules covering a wider range of activities are under development.

In terms of capturing CO2 from ambient air, the VM0049 requires that capture activities extract atmospheric CO2 using various methods like chemical absorption or electrochemical processes. Capture facilities must be either new, expanded, or refurbished facilities. The methodology particularly ensures that CO2 capture meets stringent standards to facilitate effective carbon storage and utilization.

For geologic carbon storage (GCS), the methodology employs a staged modular approach. The initial focus will be on storing carbon in saline aquifers and depleted oil and natural gas reservoirs, with later phases focusing on using the captured carbon and carbon mineralization in geological formations.

The CO2 transport module encompasses all processes in the CO2 transport value chain, such as compression and loading/unloading from various transport modes. Defining module and segment boundaries are crucial for projects with diverse ownerships.

Verra’s new methodology supports multiple technologies for capture, transport, and storage, facilitating rigorous standards for real and additional emission reductions and removals globally.