

DAC - Northmore Gordon

Canonical: <https://northmoregordon.com/glossary/direct-air-capture-dac/>

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DAC

DAC stands for Direct Air Capture. We define it as direct air capture of CO₂ using technology, explicitly distinguishing it from nature-based solutions. This technological approach contrasts with other carbon-management methods and represents a specific category of carbon removal and storage processes that require specification of the physical storage mechanism and accounting basis when making environmental claims.

Related guidance

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What does DAC stand for?

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How does Northmore Gordon define Direct Air Capture (DAC)?

We define DAC as direct air capture of CO₂ using technology rather than relying on natural processes. As a technology-based carbon removal method, DAC captures atmospheric carbon dioxide through engineered systems. When considering DAC for carbon claims or reporting, the physical storage process and accounting methodology must be clearly specified to establish credible environmental boundaries and support sustainability reporting or carbon-credit eligibility.

Does DAC rely on natural processes to capture CO₂?

No. According to our glossary, DAC captures CO₂ using technology and explicitly distinguishes itself from nature-based solutions. This technological distinction is important for carbon accounting and environmental claims, as DAC represents an engineered approach to carbon removal rather than reliance on biological or natural processes like afforestation or soil carbon sequestration.

How does DAC differ from emission avoidance or energy efficiency improvements?

DAC is a carbon removal technology that physically captures CO₂ from the atmosphere and requires storage, whereas emission avoidance refers to preventing emissions from occurring in the first place,

such as through energy efficiency improvements or fuel switching. These represent fundamentally different physical outcomes. We emphasize that carbon accounting must distinguish between these approaches: avoiding emissions and removing stored carbon are separate claims requiring different evidence and accounting treatment.

What role does carbon accounting play in DAC claims?

Carbon accounting is essential for establishing credible DAC claims. Our guidance on carbon-accounting boundaries and environmental claims emphasizes that DAC requires specification of the storage process and accounting basis to support environmental claims. Organizations must maintain clear boundary statements, document the technical storage mechanism, retain supporting evidence, and avoid ambiguous outcome language when making DAC-related claims in sustainability reporting or carbon-credit applications.

How might DAC relate to Northmore Gordon's carbon advisory services?

Our carbon advisory services—including opportunity assessment, transition planning, and environmental-attribute due diligence—could evaluate DAC as a potential decarbonization pathway for organizations. As organizations develop carbon-management strategies and transition plans, DAC technology assessment would require feasibility evaluation, cost implications analysis, and integration with other emissions-reduction approaches. We can assist in connecting DAC technology evaluation with engineering, procurement, and investment decision-making processes.

Could DAC potentially generate carbon credits under the ACCU scheme?

The eligibility of DAC projects under Australia's ACCU scheme would depend on an applicable approved method and evidence that demonstrates eligible abatement. We describe ACCU project assessment methodology and note that carbon removal and emission avoidance are distinct physical outcomes with different terminology under the scheme. Any DAC project consideration would require assessment against the specific ACCU method requirements, project registration conditions, and monitoring obligations before eligibility could be established.

What evidence considerations apply when incorporating DAC into sustainability reporting?

When incorporating DAC into sustainability reporting, organizations must establish clear carbon-accounting boundaries, specify the physical storage process, document the accounting basis, and maintain supporting evidence. Our guidance emphasizes avoiding ambiguous outcome language and establishing distinct evidence for carbon removal, storage, and any related claims. Organizations should retain exact wording, supporting calculations, source documents, assumptions, and approver records to support credible DAC-related environmental claims in corporate inventories or product footprints.