CDP Technical Note: Special conditions for reporting Scope 1 emissions

CDP Climate Change Questionnaire
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<th>Version</th>
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<tr>
<td>1.0</td>
<td>September 25, 2014</td>
<td>First published version.</td>
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<td>2.0</td>
<td>June 1, 2018</td>
<td>Updates for companies with emissions from biologically sequestered carbon (from combustion of biomass/biofuels).</td>
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<tr>
<td>3.0</td>
<td>March 3, 2019</td>
<td>Revision to clarify the reporting of emissions from biologically sequestered carbon (from combustion of biomass/biofuels).</td>
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<tr>
<td>3.1</td>
<td>April 7, 2020</td>
<td>Minor revision to &quot;For companies with emissions from biogenic carbon&quot; section.</td>
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For companies with emissions from biogenic carbon (from the combustion of biomass/biofuels)

- Carbon dioxide emitted from the combustion of biomass/biofuel or fermentation should not be included in your response to question C6.1 but instead should be reported in C6.7. This applies to self-generated biogas.

- When gas is sourced from a shared pipeline network with multiple sources including both renewable and non-renewable sources, certificates are required to demonstrate the renewable origin of gas (i.e. “certified biogas”). To make a renewable electricity usage claim on electricity generated onsite from gas the following conditions need to be met:
  - The company combusts gas sourced from a shared gas pipeline network to produce electricity;
  - It also owns or purchases green gas certificates that originated from one of the gas producers on the pipeline network – these need not necessarily be purchased directly from the biogas producers;
  - The company permanently retains the environmental attributes of the electricity generation, including any electricity attribute certificates (e.g. RECs in the U.S.) for the electricity generated.

- If the company uses biogas that is sourced from a dedicated pipeline and the source is renewable, then they do not need certificates to prove the renewable origin.

- CDP does not have specific requirements or recommendations for biogas certification. Certified biogas is defined as a contractual instrument that meets the Scope 2 Quality Criteria in the GHG Protocol Scope 2 Guidance.
For companies that capture & store and transfer CO₂

If a company generated CO₂ within its consolidation boundary and captures the gas, it should report the generated gas within its Scope 1 figure. If the CO₂ is transferred outside the reporting boundary, the organization may document the quantities of CO₂ that have been transferred and the relevant organization and/or facility to which the gas was transferred within the “Comment” column in C6.1 (this will not be scored).

If desired, this portion of transferred CO₂ can be subtracted from the company’s direct (Scope 1) emissions, although it should be reported elsewhere: under Scope 3 depending upon whether the CO₂ is eventually emitted and the nature of the emission. Some of the potential uses of transferred CO₂ are: carbonated beverages; dry ice; fire extinguishing agent; refrigerant; laboratory gas; grain infestation treatment; solvents; as a constituent of a by-product fuel that is exported (also known as inherent CO₂); as a feedback to other chemical or industrial processes; and Enhanced Oil Recovery (see below).

Companies should document the quantities of CO₂ transferred outside of its organizational boundaries. Oil & gas sector companies are asked to report on transfers and Enhanced Oil Recovery in question C-OG9.8b of the oil & gas questionnaire and could direct data-users to that information using the “Comment” column, rather than reproduce information there.

It should be noted that oil & gas companies with business activities additional to their oil & gas sector work should report on any transfers related to those activities within the main questionnaire.
Transfer in - transfer out

There may be cases in which an organization transfers in CO₂ (or more generally GHG), incorporates that CO₂ into a product and then transfers the product out of its organization. Examples of this include some carbonated beverages and fire extinguisher products, for which the transferred-in CO₂ may have been purchased from a third party. Neither the transfer in nor the transfer out of the CO₂ should be included within the Scope 1 figure of the reporting organization. However, if the process of introducing CO₂ into the product results in some of the transferred-in CO₂ being lost to the atmosphere (i.e. as fugitive emissions) then that CO₂ lost to the atmosphere from within the boundary of the reporting organization should be included within the Scope 1 figure.

Oil & gas sector companies are asked to report transfers in question C-OG9.8a of the oil & gas questionnaire. For other companies, the transfers in and out of CO₂ across the boundary of the reporting organization should be documented in the “Comment” column in question C6.1. It should be noted that the transfer in – transfer out process is different to the situation where companies generate and transfer out, in which CO₂ is generated within the boundary of the reporting organization and subsequently transferred out.
Enhanced Oil Recovery (EOR)

An organization that has captured CO\textsubscript{2} from the combustion of fossil fuels may subsequently transmit that CO\textsubscript{2} in a process of geological sequestration. The transmission of the CO\textsubscript{2} may be within the boundary of the organization or outside the boundary of the organization. Geological sequestration is often associated with Enhanced Oil Recovery (EOR), in which gas is injected into an emptying oil well in order to recover residual oil reserves and CO\textsubscript{2} is either captured underground in the empty or emptying oil well, which is capped, or flushed out of the well as it may be dissolved in the recovered oilwater mixture.

There are various uncertainties associated with geological sequestration and these are to varying degrees the subject of ongoing research initiatives and investigations. Firstly, there are uncertainties about how much of the CO\textsubscript{2} may actually be sequestered and what level of permanence may be attached to the carbon capture. Secondly there are life cycle issues in terms of how much CO\textsubscript{2} is emitted in surface facilities and transportation processes, energy use through the EOR process, losses from the storage system, leakage through abandoned wells and diffusion mechanisms through nearby active wells.

Given the uncertainties, CO\textsubscript{2} transferred and geologically sequestered through EOR processes either within or across the organizational boundary should be included within the gross Scope 1 figure. The gross Scope 1 figure should not be reduced to give a net figure.

If a company uses CO\textsubscript{2} for enhanced oil recovery (EOR) in oil wells within its consolidation boundary, then the emissions that occur from this process should be logged under Scope 1. Oil & gas sector companies are asked to specifically report on EOR in question C-OG9.8b.

A company may consider that some of the CO\textsubscript{2} remains sequestered within the oil well. However, due to the uncertainty over the permanence of this sequestration, the mass of gas should still be logged under Scope 1.

A company that transfers CO\textsubscript{2} outside its consolidation boundary for use in EOR can report the emissions that occur under Scope 3, if (some other) organization participating in the EOR activity reports it as a direct emission under Scope 1. It may consider that some CO\textsubscript{2} may remain sequestered within the oil well. However, due to uncertainty over the permanence of the sequestration, the mass of gas should still be logged under Scope 3.