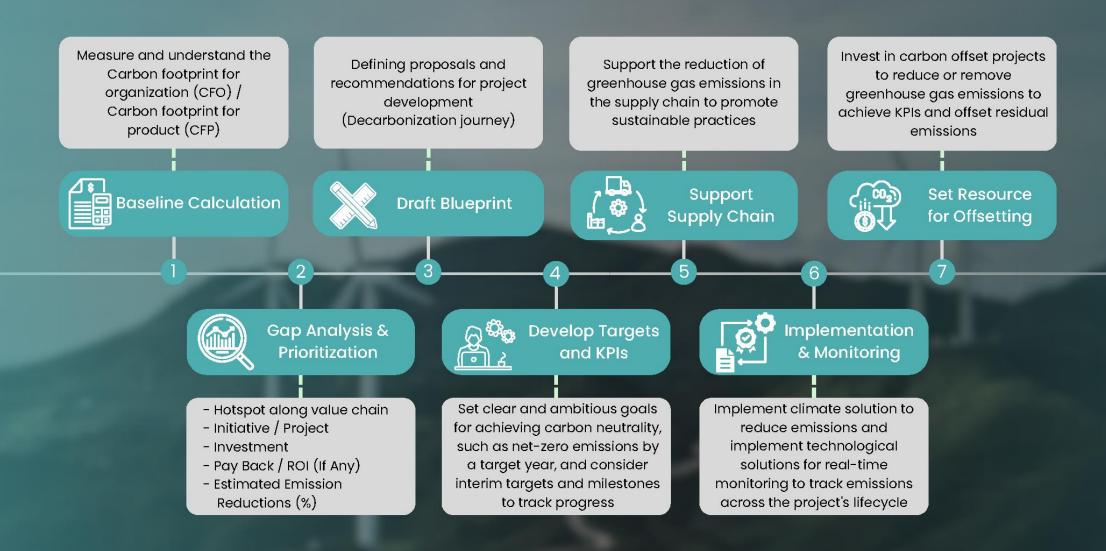


DECARBONIZATION STRATEGY





OFFSETING TO ALIGN WITH SCIENCE BASED TARGET INITIATIVES



 Costs incurred by a company within its own operations to mitigate or reduce greenhouse gases such as investments into energy efficient technologies



Insetting:

 Carbon insetting aim to achieve measurable and quantifiable reductions that can contribute to overall climate action goals



Offsetting:

 A practice employed to compensate for their greenhouse gas (GHG) emissions by investing in projects that reduce or capture GHG

SCIENCE BASED TARGET



Carbon Credit & RECs



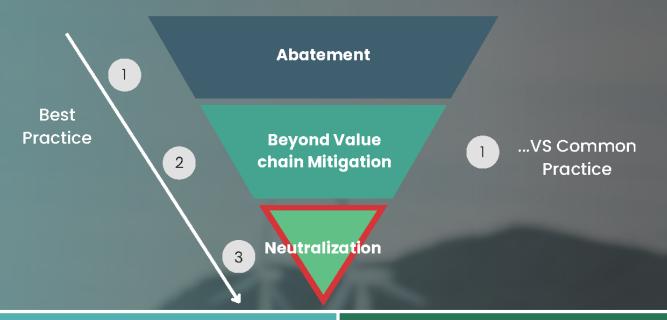
(C12) Carbon Credits:

 The use of carbon credits must not be counted as emission reductions toward the progress of companies' near-term or long-term science-based targets. Carbon credits may only be considered as an option for neutralizing residual emissions or to finance additional climate mitigation beyond their science-based emission reduction targets.

(C27) Renewable electricity (Scope 2 only):

 Targets to actively source renewable electricity at a rate consistent with 1.5°C scenarios are an acceptable alternative to scope 2 emission reduction targets. The SBTi has identified 80% renewable electricity procurement by 2025 and 100% by 2030 as thresholds (portion of renewable electricity over total electricity use) for this approach, in line with the recommendations of RE100.





Emission Reductions Within The Value Chain to Transition to Net-Zero

Beyond Value Chain Mitigation Can Accelerate The Global Transition

- Companies must prioritize making real emissions reductions within their value chains that align with 1.5 C pathways.
- To do this they must compléte emissions inventories following the GHG Protocol and set near and long-term science-based targets.
- Implement strategies to achieve these targets.
- Disclose progress annually.
- This is the minimum ambition and where possible, decarbonization should be achieved ahead of target years.

- In the near-term, prioritize securing and enhancing carbon sinks (terrestrial, coastal and marine etc.) to avoid emissions that arise from their degradation. There is also a critical need to invest in nascent GHG removal technologies (e.g., direct air capture and storage). These actions do not count towards achieving science-based targets.
- In the long-term, when the net-zero target date is reached, companies must neutralize any residual emissions that cannot be abated through permanent emission removals. Companies must continue to neutralize any remaining emissions.

VALUE CHAIN MITIGATION

Neutralization

What: Measures companies take to remove carbon from the atmosphere and permanently store it, counterbalancing the impact of emissions that remain unabated.

Although most companies will reduce emissions by at least 90% through their long-term science-based targets, some residual emissions may remain. These emissions must be neutralized to reach netzero emissions and a state of no impact on the climate from GHG emissions.

Remark: A company cannot claim to have reached net-zero until the long-term sciencebased target for all scopes is achieved and the company has neutralized residual emissions.



Location-Based Method

Definition

• A method to quantify scope 2 GHG emissions based on average energy generation emission factors for defined geographic locations, including local, subnational, or national boundaries.

How method allocates emissions:

 Emission factors representing average emissions from energy generation occurring within a defined geographic area and a defined time period.

Cross Boarder Offsetting

Emission Factor of Electricity, Grid Mix Between Thailand and Vietnam



| Year | Thailand | Vietnam |
|------|-----------------|------------------|
| 2021 | 0.433 tCO2/MWh. | 0.7221 tCO2/MWh. |
| 2020 | 0.442 tCO2/MWh. | 0.8041 tCO2/MWh. |
| 2019 | 0.445 tCO2/MWh. | 0.8458 tCO2/MWh. |
| 2018 | 0.459 tCO2/MWh. | 0.9130 tCO2/MWh. |
| 2017 | 0.471 tCO2/MWh. | 0.8649 tCO2/MWh. |

Market-Based Method

Definition

• A method to quantify the scope 2 GHG emissions of a reporter based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with contractual instruments, or contractual instruments on their own.

How method allocates emissions:

• Emission factors derived from the GHG emission rate represented in the contractual instruments that meet scope 2 quality criteria.

CLAIM STANDARD (GHG SCOPE 2)

Are any of your energy-consuming facilities located in areas where grid customers can be provided with product or supplier-specific data in the form of certificates, contracts with generators or suppliers for specified source electricity, supplier labels, supplier emission rates, green tariffs, contracts, residual mixes, or other contractual instruments?

If No

You will report one scope 2 total based on the location-based method.

If Yes

You will report two scope 2 totals for the overall corporate inventory: one market-based and one location-based.

For location-based scope 2: calculate using grid average emission factor types in table 6.2

For market-based scope 2: determine whether each energy-consuming facility (or group of facilities in a given jurisdiction) has electricity product or supplier-specific data that meet the scope 2 quality criteria, listed in table 6.3.

If No

Calculate using residual mix or location-based emission factors (will render that facility's marketbased scope 2 total the same as the location-based total)

Calculate using the emission factors derived from contractual instrument to report market-based scope 2 for that operation.

If Yes

Source: GHG Protocol Scope 2 Guidance