

How can IETF develop a credible and compelling approach to carbon offsets to achieve its carbon neutrality goal?

Workshop 2: Emissions offsetting strategy

Internet Engineering Task Force

02 November 2022

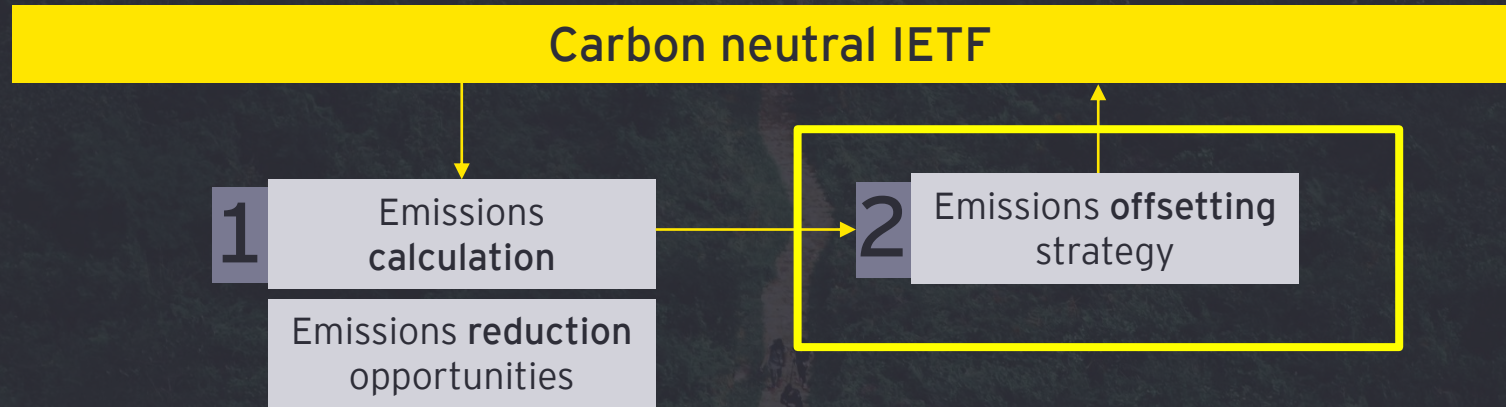


The better the question. The better the answer.
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Agenda



Purpose:

- (1) Provide IETF and its participants with an overview of the options available to participate in voluntary carbon markets and develop an understanding of criteria IETF may use to obtain quality offsets as part of its offsetting strategy.
- (2) Discuss participant feedback on the proposed criteria and preferences for offset procurement.

Agenda:

1. Carbon Offsets in the Voluntary Carbon Market
 - Overview of how offsets are used by organisations
 - Types of offsets, standards and principles
2. Criteria and preferences for quality offsets
 - Considerations for procuring offsets
3. Next steps

Carbon Offsets in the Voluntary Carbon Market

Voluntary carbon markets

Voluntary carbon credits direct investments to climate-action projects

Demand is driven by corporate (and individual) offsetting commitments.

Supply is from a range of projects internationally, many of which yield additional co-benefits such as biodiversity and social outcomes.

Carbon credits can also support investment into the innovation required to lower the cost of emerging climate technologies.



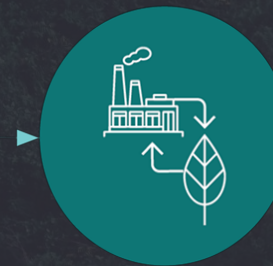
Carbon credit

A certified and transferrable instrument representing one tonne of CO2 equivalent emissions that were avoided or removed from an offset project



Created by Offset project

A project that results in the avoidance of greenhouse gas (GHG) emissions or their removal from the atmosphere

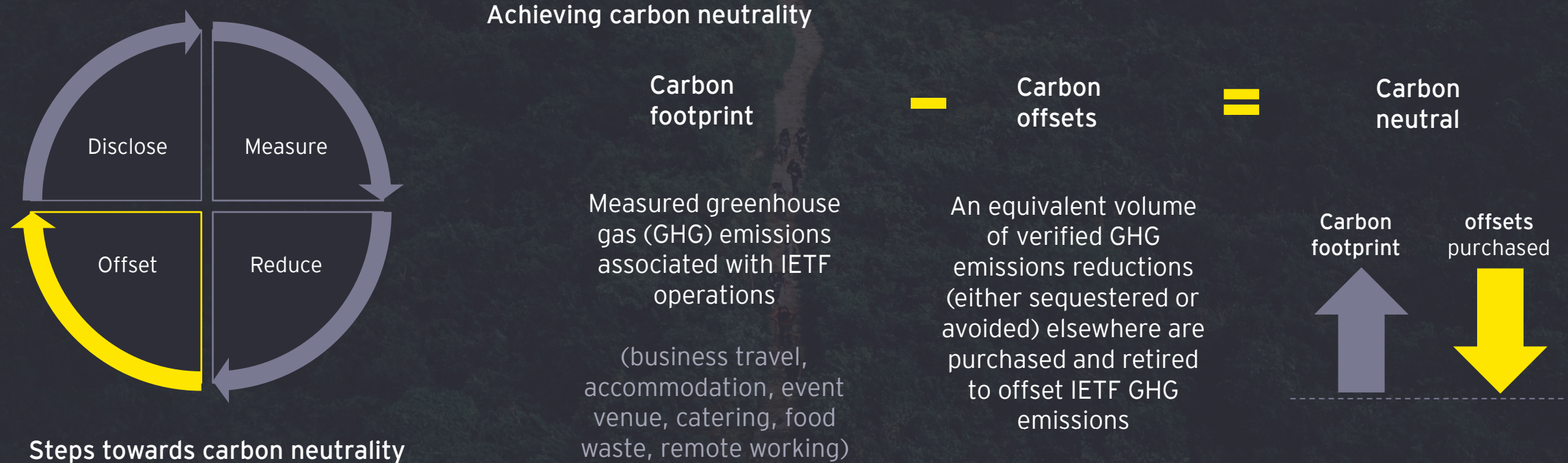


Used for Offsetting

The process of retiring carbon credits to 'offset' the equivalent volume of emissions by the holder

How offsets are used in carbon neutral claims

Carbon offsets are a way for organisations to compensate for emissions that cannot be avoided or reduced any further.



Types of credits

AVOIDANCE

Projects have a lower GHG footprint than the alternative activity that would take place if the project was not implemented. Also referred to as

Nature-based avoidance:

- Highest supply, affordable cost per credit
- Potential issues with permanence, which can be managed with a buffer

Examples: Avoided deforestation & forest degradation, avoided wetland conversion

Technology-based avoidance:

- High supply, low cost
- Relatively high level of permanence
- Potential to not count as additional removal in the future

Examples: Renewable energy, energy efficiency, waste disposal

REMOVALS

Projects that removes greenhouse gases from the atmosphere and permanently stores it. Also referred to as "ecosystems sequestration"

Nature-based removals:

- Higher cost per credit, lower supply
- Potential issues with permanence, which can be managed with a buffer

Examples: mangrove restoration, afforestation, regenerative agriculture, enhanced soil sequestration

Technology-based removals:

- Highest cost per credit, lower supply
- No credits yet issued by any registries
- Relatively high permanence
- Supports transition to net zero

Examples: Direct air capture, bioenergy with carbon capture & storage, mineralisation

NATURE

Focus on protecting, managing and restoring forests, wetlands and other ecosystems.

TECHNOLOGY

New technologies that can avoid or remove and store carbon in the atmosphere.

There are many types of offset projects

Avoidance



Increasing energy efficiency: using less energy to produce the same result. E.g. Clean cookstove projects.



Renewable electricity production: solar, wind, hydro, biomass and geothermal sources.



Waste handling and disposal: recovering and utilising biogas from municipal and industrial waste.



Livestock management: feed supplements into ruminants' diets.



Avoided natural ecosystem degradation: activities that aim to protect endangered natural ecosystems.



Fugitive emissions recovery: capturing and utilising methane from industrial processes.

Removals



Carbon capture and storage (CCS): removes unavoidable as well as historic CO₂ emissions, creating a closed carbon cycle. Includes Direct air capture technology.



Nature based solutions: activities that protect, manage and restore natural and modified ecosystems, ideally simultaneously address socio-environmental challenges.

There was a 264% increase in sale of NbS offsets between 2016-2018 versus 21% increase in other projects. NbS include projects which:

- Reduce deforestation
- Restore forests, wetlands and peatlands
- Improved livestock, nutrient and rice management
- Improved forest management and agroforestry

An increasing number of guidelines are now recommending that organisations move towards investing in carbon removal offsets, particularly in the long-term, and in support of net zero emissions goals.

Example carbon credit project



Cookstove Credits

Cookstove credits are issued when communities use cookstoves that are fuel efficient and avoid CO₂ emissions that would have occurred with inefficient cookstoves. Low-income families can purchase the stoves, subsidised by selling carbon credits.

- Cookstove carbon credit:
 - Represents a tonne of CO₂ emissions **avoided** from charcoal and fuelwood cooking.
- Co-benefits:
 - Reduce deforestation and biodiversity loss of local forest
 - Reduce the impact of carbon dioxide on the climate system
 - Improved quality of life
 - Gender benefits; women can spend more participating in other socio-economic activities (less time needed to collect wood)



Source: [South Pole, Mali Clean Cookstoves](#)

Co-benefits are the key reason why one offset project may be preferred over another.

Example carbon credit project



Forestry Credits

By reducing the concentrations of carbon dioxide in the atmosphere, forest carbon sequestration can play an important role in climate change mitigation.

- Forestry carbon credit:
 - A forestry carbon credit is awarded for a tonne of CO₂ sequestered/**removed** from the atmosphere.
- Co-benefits:
 - Job creation and production of raw materials (wood harvesting)
 - Land diversification
 - Improved water quality
 - Greater biodiversity
 - Soil erosion control



Source: [South Pole, Kariba forest protection](#)

Key principles and criteria



IETF Preferences

Considerations

When approaching the purchase of carbon credits, EY recommends IETF builds a portfolio of diverse projects to pursue greater impact and reduce overall risk.

Key criteria (re-cap):

- Additional
- Permanent
- Unique
- Independently verified
- Measurable
- Robust quantification
- Programme governance
- No negative community impact

Other considerations:

- Alignment with IETF ESG values
- Project diversification
- Due diligence
- Carbon credit quality
- Co-benefits
- Vintage (*year credits are issued*)
- Competitive pricing
- Location of offsets (*potentially offsets from areas that participant's events are held*)

Carbon offsets portfolio



Mixture of nature/technology based removals/avoidance credits, spread of geographic areas that meet recognised global criteria

Exercise with IETF participants

Mentimeter voting - www.mentimeter.com, follow THIS LINK

1. Do you agree with the minimum criteria (aligned with the global ICROA and ICVCM standards)?

- A Yes
- B No
- C Don't know

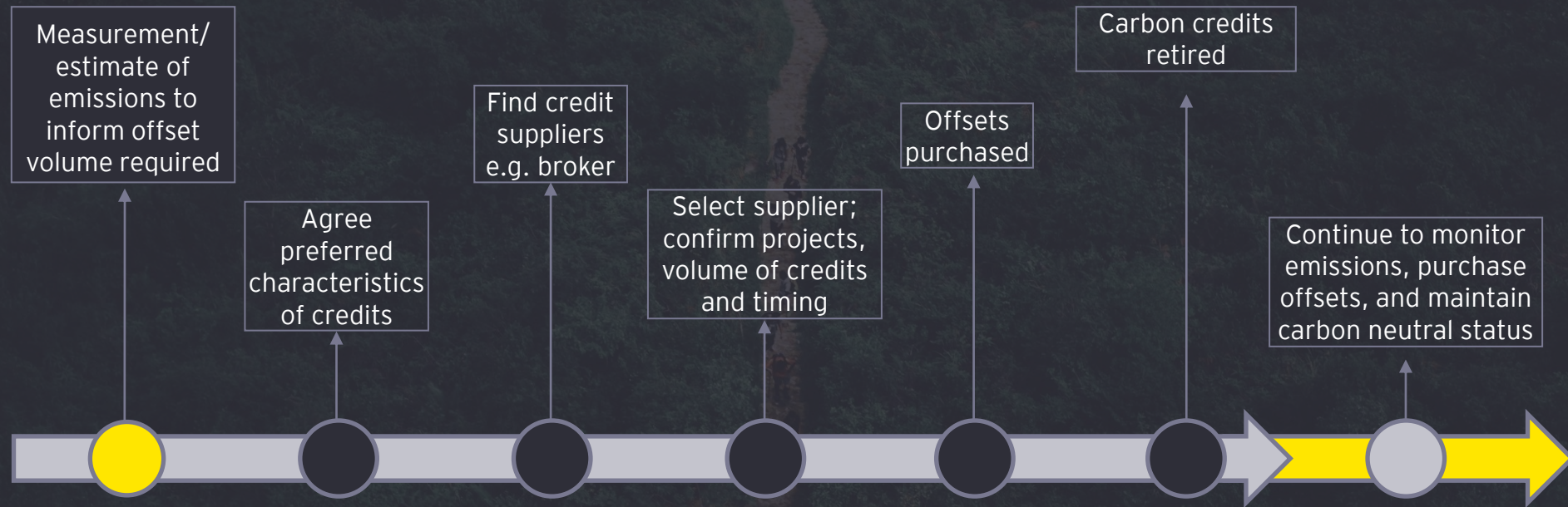
2. Please rank considerations in order of priority (rank a minimum of 3)

- 1 Geographic area
- 2 Alignment with IETF ESG values
- 3 Social co-benefits
- 4 Environmental co-benefits
- 5 Vintage
- 6 Competitive pricing
- 7 Nature based credits
- 8 Technology based credits



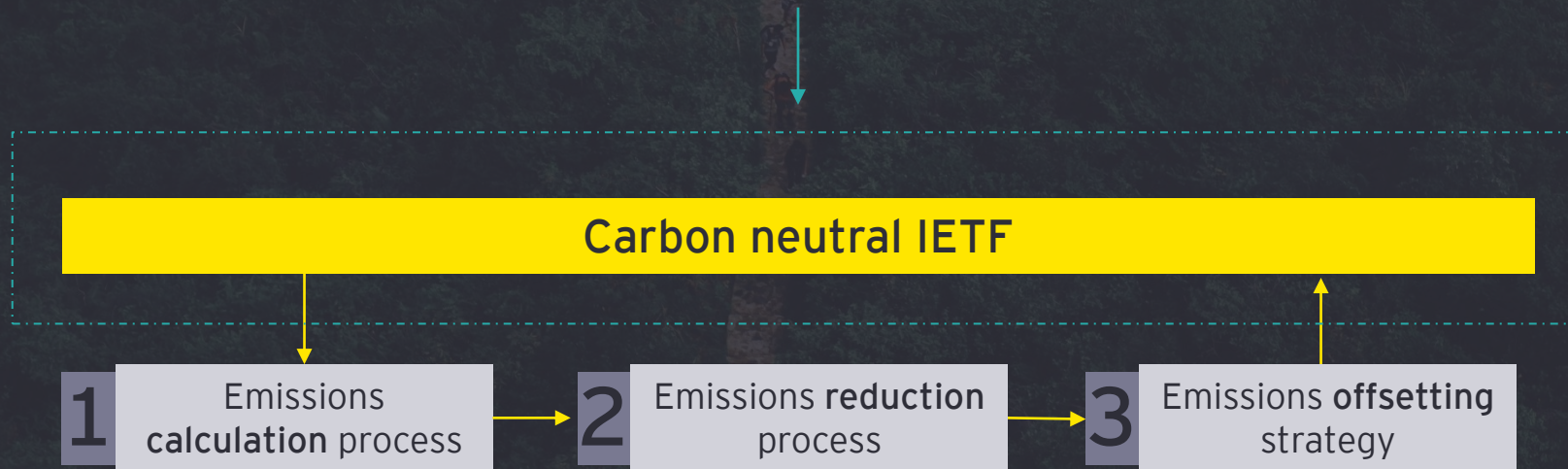
Next steps

Offset procurement



Next steps

- Determine how many offsets are needed to achieve carbon neutral)
- Confirm preferences to inform offset procurement
- Establish minimum criteria that offsets must meet – diversify purchase type and project type, geography, and time horizon and align with widely-accepted international standards
- Purchase and retire offset credits



Q&A



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