Guide to Carbon Emissions & Offsets

MeetGreen®

Carbon Dioxide

A heat-trapping greenhouse gas found all over the world and in every living thing

Produced by humans more than any other greenhouse gas

Responsible for most of global warming

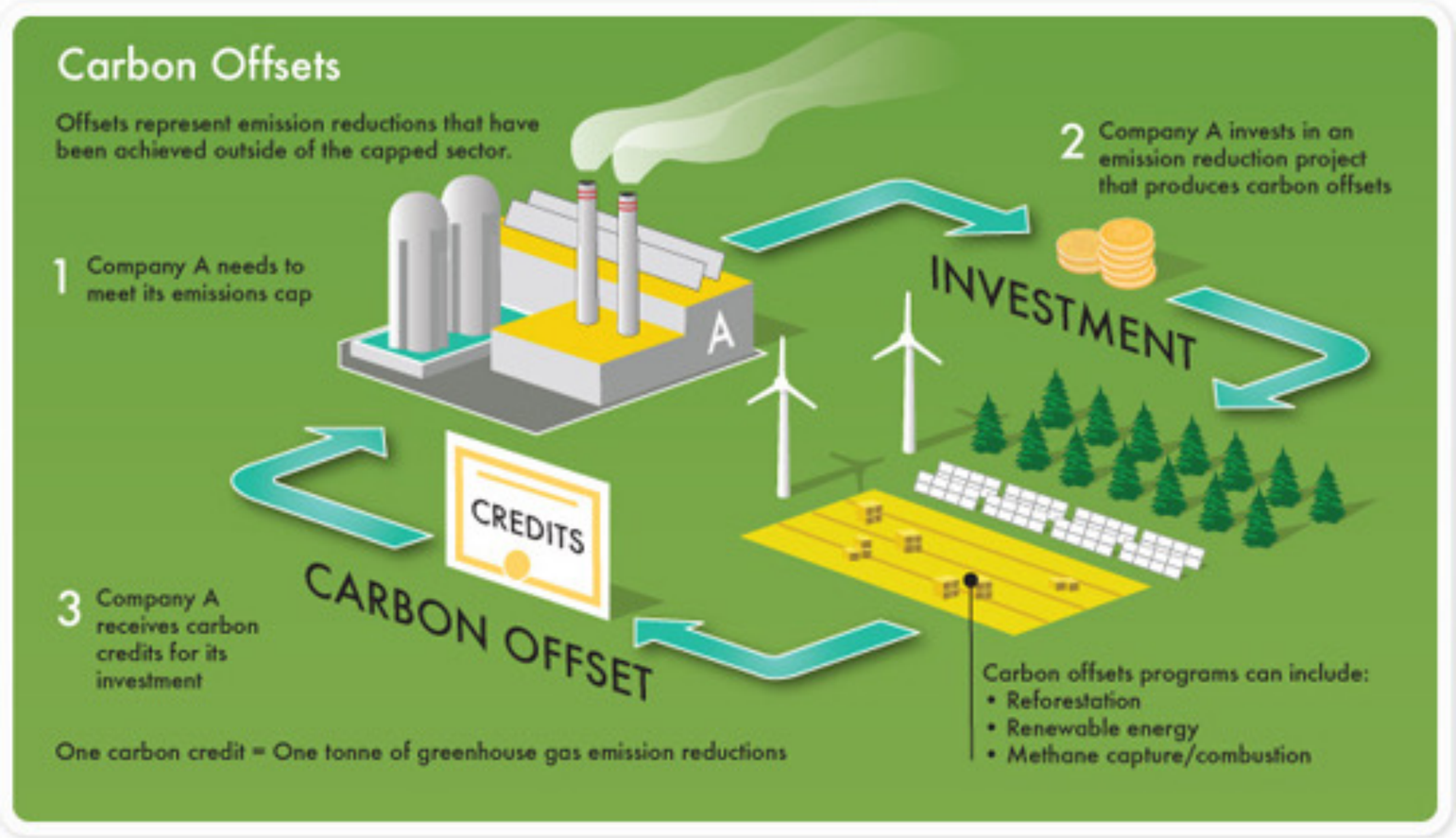
Generated by burning gasoline and fossil fuels

Added to the atmosphere faster than natural processes can remove it

Stays in the atmosphere 50 years to thousands of years

Mixes with other greenhouse gasses as air moves around the world. The concentration of a greenhouse gas is roughly the same no matter where it is measured

Carbon Offsets



A carbon offset is a project implemented specifically to reduce the level of greenhouse gases in the atmosphere. Offsets are so named because they counteract or offset the purchaser's GHG emissions.

Carbon Emissions & Offsets

Conferences and events can have both positive and negative impacts on the communities in which they are held:

✓Boost the local economy
✗Overwhelm local infrastructure
✗Leave behind a significant amount of waste
✗Generate a large amount of greenhouse gas emissions and a big carbon footprint

Offsets bridge the gap: Some emissions are impossible to avoid. Impact can be mitigated through carbon offsets and funding greenhouse gas and renewable energy projects that reduce greenhouse gases.

Carbon Offsets

PROS

- Demonstrates a company's environmental commitment
- Supports local projects that reduce emissions and are verified and validated through stringent standards
- A global market-based mechanism for reducing emissions
- Emissions can be generated in one location and verified and validated to reduce emissions in another location

CONS

- Although the best way to reduce emissions is to not generate them, carbon from air travel to/from events is unavoidable
- The most efficient way to lower emissions is to use newer technologies, which is not always possible at event venues

Carbon Offset Consideration

Step 1: Consider Fit

- Is a carbon offset program right for my organization?
- Will members be accepting of the option?
- Should the program be voluntary, or mandatory?

Step 2: Consider Type of Offsets

- What kind of offset project does the organization want to support?
- Is it important where the offset project is located? Does it need to be local?

Step 3: Consider Funding Options

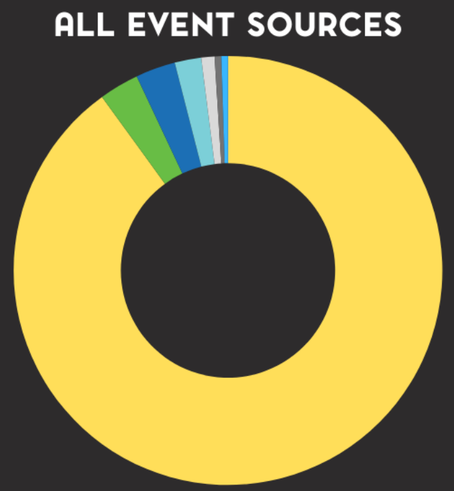
- Is the offset program to be funded by the organization, sponsors, the individual attendee or all three?

Sample Event Carbon Profile

Understanding Event Emissions: The Carbon Puzzle

You can't manage what's not measured!
Explore where your event emissions come from.

- Attendee Transport (90%)
- Build/Asset (3%)
- Staff/Crew Transport Energy (3%)
- Hotel/Venue Energy (2%)
- Food/Service Ware (1%)
- Freight (.5%)
- Other (.5%)



*Other = Swag, Virtual Energy, & Onsite Transportation

Sample Offset Options/Costs

Option 1: Carbon Neutral Event

- All emissions offset
  - Air Transportation
  - Ground Transportation
  - Freight
  - Hotel
  - Venue Energy
  - Venue Waste
- Assumes cost of $10/MT
  (cost depends on offset project volume, technology and location)

Option 2: Identify Specific Energy Activities to Offset at the Event

- Assumes cost of $10/MT for mixed portfolio (Offset Projects)
  - Wind
  - Waste
  - Forest
  - Agriculture

Sample Offset Options/Costs		
Energy Activities	**CO2 (MT)**	**Cost ($10/MT)**
Air Transportation	27,000	$270,000
Ground Transportation	150	$1,500
Freight	35	$350
Hotel Rooms	2,500	$25,000
Venue Energy	1,000	$10,000
Venue Landfill	0.1	$1
	Total Cost	**$306,851**

Offset Project Categories

Waste Management | Wind Energy | Forest Management | Agricultural

Trash buried inn landfills decomposes slowly, producing methane which escapes into the atmosphere.

Methane is a powerful greenhouse gas - 84 times as powerful as carbon dioxide. Projects which capture and destroy that gas benefit the environment.

Offset Project Category:

Waste Management

Most electricity comes from fossil fuels, such as coal and natural gas. These conventional sources produce carbon dioxide emission. Wind energy allows electricity to be produced with little emissions. Funding wind offsets helps lower the proportion of electricity derived from dirty power sources.

Offset Project Category:
Wind Energy

Sustainable forest management increases carbon in the forest and in durable, harvested wood products. Projects can focus on increasing the overall age of a forest, increasing forest productivity by thinning diseased or suppressed trees or managing brush, improving harvest practices, and maintaining stocks.

Offset Project Category:
Forest Management

Help farmers capture and destroy the methane, a powerful global warming gas which forms when managing animal waste. Projects support the installation and operation of anaerobic digesters, lagoon covers, and electricity generators.

Offset Project Category: Agricultural

Sample Offset Projects

Crow Lake/Prairie Wind Offsets:

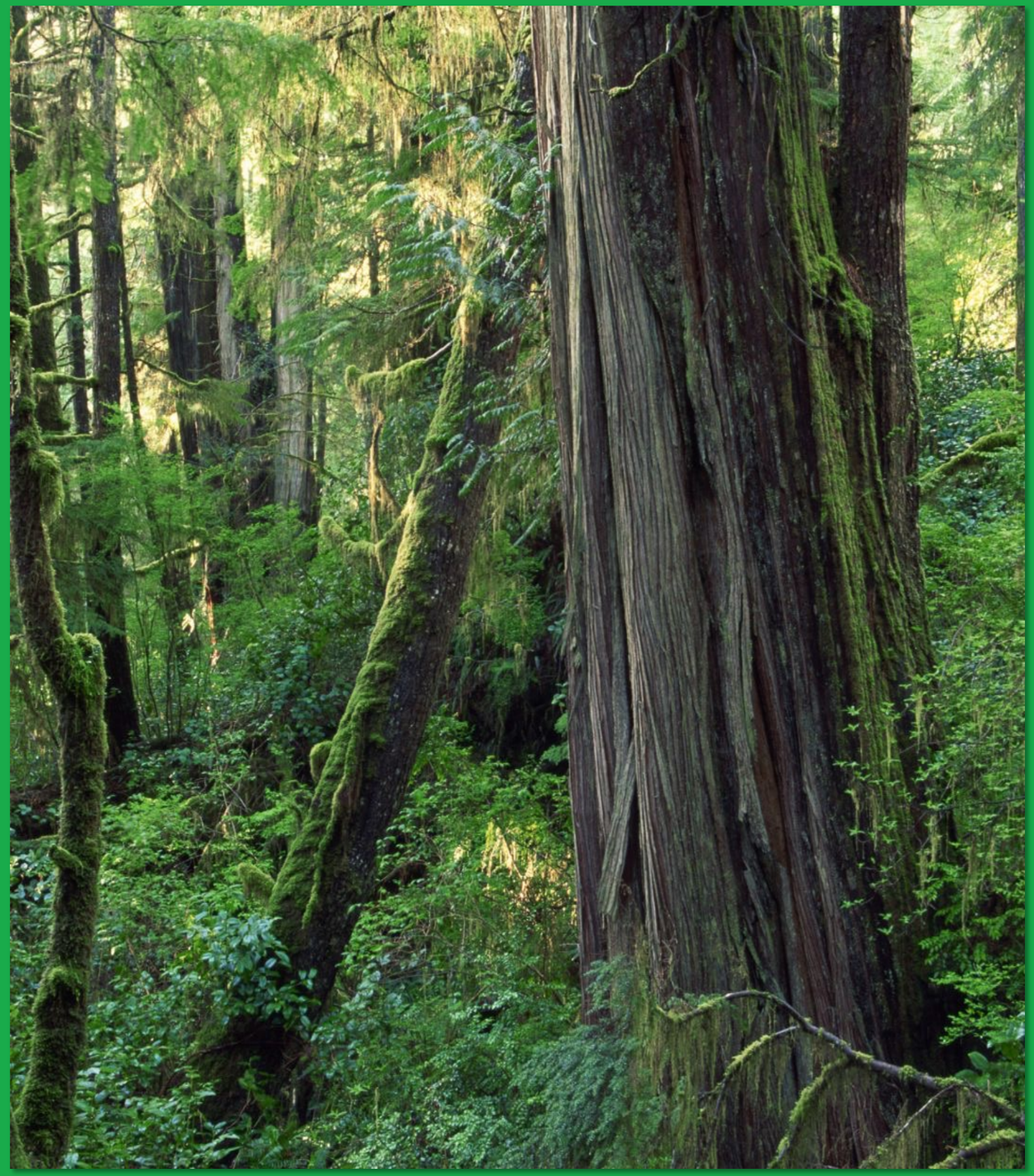
Renewable Energy - South Dakota

- Spans three counties in South Dakota and is the largest wind project in the United States owned solely by a cooperative. Has a capacity of 151.4 megawatts.

- Example of public sector and private sector partnership that provides local impact. The transition from fossil fuel energy generation to new renewable energy can directly reduce atmospheric carbon emissions.

Lancaster Landfill Gas to Energy - Pennsylvania

- Extraction of landfill gas from a municipal solid waste landfill, resulting in a net reduction of new greenhouse gas.
- Approximately 55% of 220 million tons of waste generated each year in the United States ends up in one of the over 3,500 landfills, the funding from carbon credits enables these landfills to reduce greenhouse gases for municipalities.



Great Bear Forest Carbon Project: Improved Forest Management Protocol - Canada

- Home to the largest intact coastal temperate rainforest remaining in the world
- Ecosystem Based Management (BEM) approach that values the forest not a source of lumber alone, but as a balanced system that sustains biodiversity and an enriched community.


MeetGreen®