The Path to Climate Neutrality: The Basics for Schools

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Agenda

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1. Measure: measuring greenhouse gas emissions - our calculator and how to use it
2. Q&A about calculation of emissions and the calculator
3. Reduction: First steps
4. Contributing: compensating non-avoided emissions
5. Example from a school taking action
6. Q&A

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Measure

Calculating greenhouse gas emissions

Our calculator and how to use it

Measure: Basic Concepts

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Carbon Neutral:

- Measure, reduce and offset with carbon credits
- We can be carbon neutral now
- Organizations can be carbon neutral, the planet cannot

Climate Neutral:

- Measure, reduce and capture with long term solutions
- We cannot be climate neutral yet
- We must all be climate neutral by 2050

Net Zero:

- Synonym to climate neutral

Measure: GHG Protocol / DEFRA

GHG Protocol:

- The world's most widely used greenhouse gas accounting standard

DEFRA Emission Factors:

- Conversion factors allowing organizations and individuals to calculate greenhouse gas (GHG) emissions from a range of activities, including energy use, water consumption, waste disposal, recycling and transport activities
- Developed by UK Government's Department for Environment, Foot & Rural Affairs (DEFRA)

Measure: Sources of Emissions / Scopes

Scope 1 – All Direct Emissions from the activities of an organisation or under their control.

Scope 2 – Indirect Emissions from electricity/heating/cooling purchased and used by the organisation.

Scope 3 – All Other Indirect Emissions

Scopes	Sources
Scope 1	· Generating electricity · Generating heat – non-electric · Business travel – owned company vehicles · Industrial processes emissions
Scope 2	· Purchasing of electricity · Purchasing heat · Purchasing steam
Scope 3	· Business travel – flights · Business travel – public transport · Waste & Wastewater · Transmission and distribution losses · Food consumption

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Demonstration of use of the calculator

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Q&A about calculation of emissions and the calculator

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Reduction: First Steps

Reduction: Understanding GHG Footprints

Scopes		Sources
Scope 1	You control, you decide	· Generating electricity · Generating heat – non-electric · Business travel – owned company vehicles · Industrial processes emissions
Scope 2	Be efficient!	· Purchasing of electricity · Purchasing heat · Purchasing steam
Scope 3	You can influence	· Business travel – flights · Business travel – public transport · Waste & Wastewater · Transmission and distribution losses · Food consumption

Difficult but important!!

Reduction: Defining GHG Reduction Targets

Setting a GHG reduction target involves:

- **Step 1:** Obtain commitment from management
- **Step 2:** Develop your GHG inventory/carbon footprint (Measure)
- **Step 3:** Identify ways to reduce and calculate how much can be reduced
- **Step 4:** Choose the base year for tracking progress
- **Step 5:** Define the target year – long or short term target or mixed?
- **Step 6:** Decide on the use of offsets or credits for unavoidable emissions
- **Step 7:** Implement
- **Step 8:** Track and report progress, adjust

Reduction: Simple Ways to Reduce

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Resource efficiency

1. Reduce purchase of materials (paper etc.)
2. Reduce food waste
3. Sorting waste and recycling where possible

Energy efficiency

1. Turning off lights & electronics when not in use
2. Purchasing renewable energy
3. Increasing energy efficiency through improved lighting, double glazing, electronics, and improved infrastructure (heating systems, double glazing, insulation)
4. Public transport initiatives

Awareness + leadership + evaluation

1. Increasing awareness - student and staff engagement
2. Nomination of student eco leader to ensure light & equipment turned off, water usage minimized etc
3. Internal audits

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Contributing: compensating non-avoided emissions

Contributing: Carbon Markets & Carbon Credits

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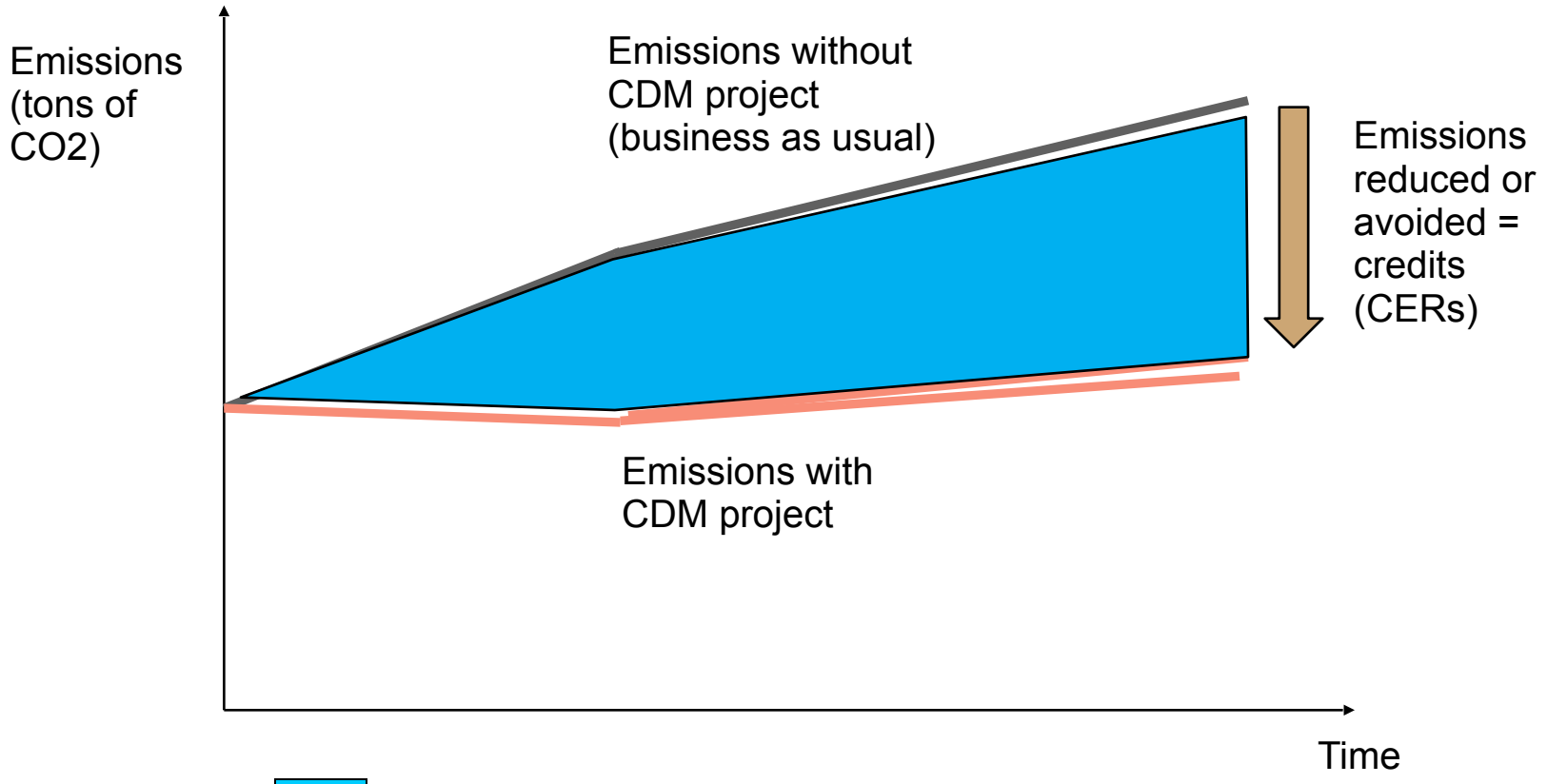
Carbon Markets:

- Relates to the buying and selling of carbon credits
- Defines the rules and the procedures to follow

Carbon Credits:

- A carbon credit is equivalent to one metric ton of carbon dioxide equivalent (CO2-e)
- A carbon credit can be used by a business or individual to compensate their carbon footprint by rewarding a project that has reduced or sequestered GHGs at another site.
- Carbon credits have many co-benefits: job creation, health improvements, generating income, preserving resources …

Contributing: What is an “offsetting” project?



= **emission reduction credits (offets)**

(1 ton of CO2 = 1 carbon credit)

What do they look like?

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An example from a school taking action

Schools in China

6 School groups (total 12 camps, 20K+ students will be in program)

金陵小学
JINLING PRIMARY SCHOOL

常州市武进区·星河实验小学分校
CHANGZHOU WUJIN XINGHE EXPERIMENTAL PRIMARY SCHOOL

嘉兴市南湖世合(双语)学校
Jiaxing Nanhu Alliance Bilingual School

铜山区实验小学教育集团
TONGSHAN EXPERIMENTAL PRIMARY SCHOOL EDUCATION GROUP
2015

1914
六合區實驗小學
Luhe Experiment Primary School

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Any questions?

Thank you

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