Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

Session 1: Understanding the ETS: Basic principles and brief introduction to key components of the ETS legislation

2nd Seminar on "Sharing Experiences on Legal Development and Implementation of ETS"
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Outline

- **Basics of ETS**
- **Introduction: Establishing an ETS**
- **Framework and Specification**
- **Main Areas of Legislation**

1. Scope and coverage
2. Cap setting
3. Auctioning / Allocation
4. Monitoring – Reporting – Verification - Accreditation (MRVA)
5. Compliance and Sanctions
6. Trading and Market Oversight
7. ETS Registry

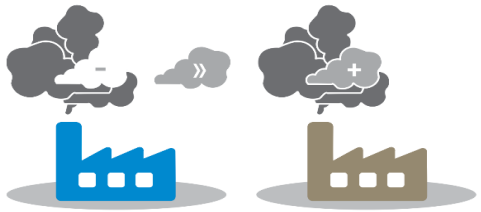
Emissions Trading
Basic Principle I

- **ETS puts a limit on GHG emissions (CAP).**

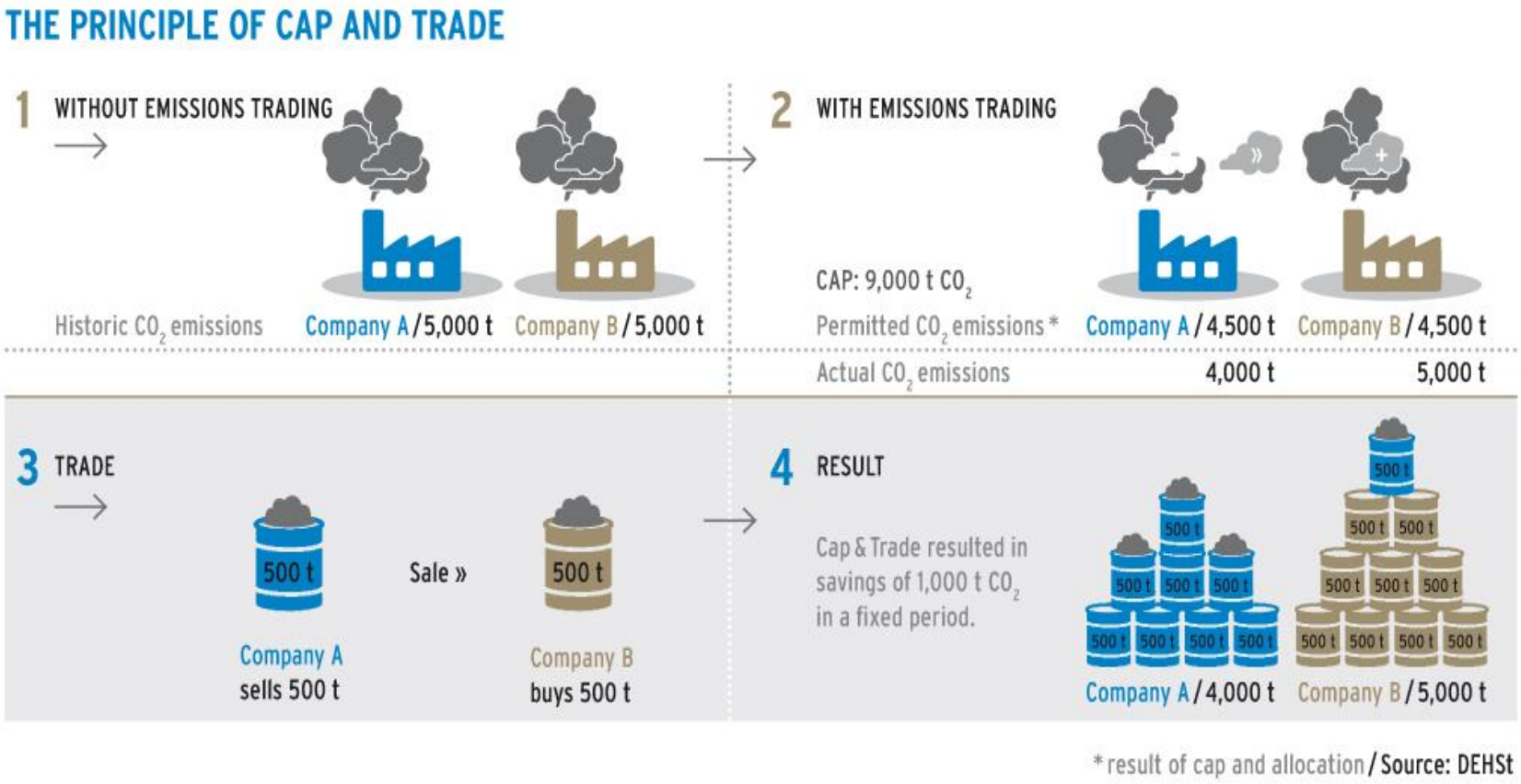
- **Companies** are required **to report annual emissions in accordance with their CO_2 PERMIT and to surrender ALLOWANCES** equivalent to their emissions (one allowance for each ton of CO_2e).

- **Companies are free to**
  - **invest in mitigating emissions** to reduce their obligations
  - **sell surplus allowances** due to emissions reductions or
  - **buy emission allowances** over the carbon market.

} **TRADE**



Emissions Trading
Basic Principle II



Emissions Trading: Why?
Benefits of an ETS I

- **Environmental effectiveness**: ETS set an absolute upper limit (cap) that will be met with a high degree of certainty
- **Puts a price on GHG emissions**
  - Reflects the **polluter pays principle**
  - **Creating scarcity** of emission rights
- **Cost effectiveness:** does not mandate particular solutions but lets participants find the most cost-effective emission reduction options available to the market as a whole
- **Economic flexibility:** price adjusts to economic conditions and participants can choose to either invest in mitigation options or to buy allowances

Emissions Trading: Why?
Benefits of an ETS II

- **Accelerates** the development, diffusion and deployment of **low-carbon technology**
- **Technology neutrality:** not preferring one type of technology over another for achieving mitigation
- **Creates Revenues** (in case of auctions) which can be used for additional climate action
- **Allows for options to address distributional issues, differing mitigation potentials and competitiveness concerns via allowance allocation methods**
- **Potential for integrated global climate policy** by linking different systems

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Establishing an ETS
Key Design Features

- **Coverage**
  Which sectors should participate in the ETS?
- **Cap & Flexibiliy Measures to ensure environmental integrity**
  What is the contribution of the covered sectors to the national GHG target?
- **Allocation**
  Will allowances be auctioned?
  How much much are given for free and how?
- **Monitoring, Reporting and Verification (MRV)**
  How to ensure that a tonne is a tonne?
- **Compliance & Enforcement**
  How to cover emissions by allowances?
  Which sanctions are necessary to ensure compliance?
- **Registry & Trade & Market Surveillance**
  Which electronic infrastructure will be used to track trading and ensure security?
  Who is allowed to trade and which products?

Establishing an ETS
Steps to implement the ETS

- **Define key design features**
  - What kind of system suits best regarding your **national circumstances**?
  - How to ensure the ETS will be **compatible with** systems you envision **linking** with or beeing part in the future?
- **Will existing data be sufficent** for your decisions **or do you need** to collect **additional data?**
- **Legal Basis**
  Establish legal basis needed for the key design elements
- **Institutional Basis**
  Define or create institutions responsible for implementing the ETS

Establishing an ETS
Organizing Support on all Levels

Consultations with …

- **Other Ministries involved**
  e. g. in Germany “Interministerial Committee for Climate”
- **Possibly Members of Parliament**
  to ensure support by relevant political parties
- **Stakeholders from covered sectors**

  in Germany
  - **Working Group on Emissions Trading (AGE)**:
    - Permanent stakeholder consultation on all questions of ETS
    - including representatives from companies, trade associations, environmental NGOs, trade unions, parliamentary factions of political parties, federal states and agencies
  - Complemented by **high-level consultations with CEOs** of major companies in the implementation phase

Establishing an ETS
Pilot Phase - Learning by Doing

Learning is possible only in a “real” system

- **“Hard” Framework**
  - Duties of covered installations and sanctions need to **ensure compliance**
  - **Verified data** ensure information basis for subsequent more ambitious trading periods
- **Soft Start**
  - Generous cap providing for **manageable reduction efforts**
  - **Cost free allocation** & **Phasing-in Auctioning**
  - **Additional policies** can reconcile economic impacts (e.g. by developing renewable energy, improving energy efficiency, solutions for carbon leakage)

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Framework and Specification

- **Establishing** an **ETS** requires a **sound legal framework** to…
  - **Ensure** the **environmental integrity** of the scheme
  - Avoid negative impacts, e.g. distortions of competition

- Required **level and grade of regulation depends on constitutional & legal system** of each jurisdiction; **in general:**
  - **Major ETS design decisions & main principles** shall be laid down in a **high-level legislative framework**
    => Providing **legal certainty** for the scheme
  - **Implementation details** set out in **subordinate legislation**
    => Assuring **flexibility** in the market design

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1. Scope & Coverage

Definition of Coverage

- Greenhouse Gases (GHG)
- Activities and Thresholds

Definition of regulated entities

- Specific installations and system boundaries
- *Alternative:* company-based approach

→ **Scope and Coverage shall be laid down in the framework law**

2. Cap setting

- **Cap: Total number of allowances available** to the scheme in a specific period
- **Cap-setting methods**
  - **Bottum-up** approach based on emission data of regulated entities
  - **Top-down** approach based on emission inventories
- **Cap should provide for reserves** (e.g. New Entrants‘ Reserve, Flexibility Reserve)

→ **Cap and reserves** should be laid down in **framework law**

→ **Calculation** may be laid down in **subordinate legislation**

3. Auctioning/Allocation

- **Auctioning**
  → Creates revenues and a primary market (early & transparent price discovery)
- **Grandfathering allocation**
  → Allocation = historical emissions x reduction factor
- **Benchmark allocation**
  → Allocation = benchmark x historical activity level
- **Special allocation for sectors exposed to carbon leakage?**

→ Definition of **auctioning shares** and applied **allocation methods** shall be laid down in **framework law**

→ **Auctioning amounts and calendar** & detailed **allocation rules** to be laid down in **subordinate legislation**

4. MRV

Operators key obligations

- Apply for an emissions permit and a monitoring plan (MP)
- Monitor green house gas emissions in accordance with the MP
- Submit annual emission reports verified by independent verifiers

Verifiers need to (be)

- Competent & independent
- Carry out verification impartially
- Formally recognized (e.g. accredited) & subject to surveillance

→ **Main Obligations** to be laid down in **framework law**

→ **Monitoring methods**, **details** regarding the **verification & accreditation & surveillance** of verifiers in **subordinate legislation**

5. Compliance & Sanctions

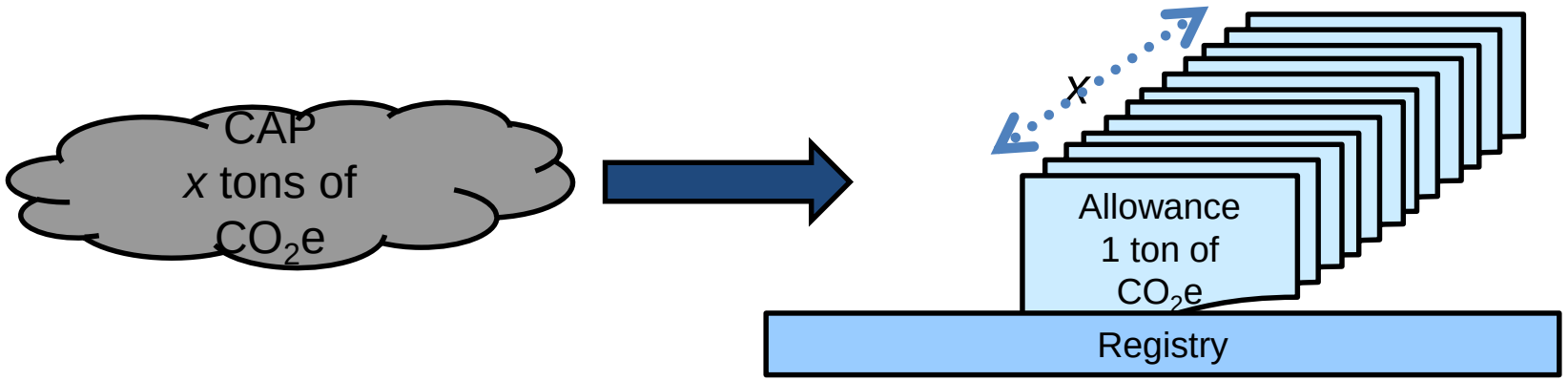
- **Backbone of any ETS: Operator have to surrender allowances** to cover the greenhouse gas emissions of the reporting period
- **ETS Authority has to be empowered to**
  - Carry out **compliance checks**
  - **Impose sanctions** in cases of non-compliance
- **Sanctions/Penalties** provided for must be **effective, proportionate and dissuasive**
  - E.g. **„Excess emissions penalty“** regarding operators not surrendering sufficient allowances to cover the verified emssions of the reporting periode (EU ETS: € 100/t CO2e)
  - Payment **shall not release operators from obligation to surrender**
  - **Administrative fines for** other non-compliances, e.g. late reporting

→ **Empowerment & Sanctions** to be laid down in **framework law**

6. Trading & Market Oversight

- **Participants** in the **carbon market?**
  - **Compliance Entities**
  - **Intermediaries** (banks, financial service providers and other investors)?
- **Market can be divided into**
  - **Primary market** (initial allocation/auctioning)
  - **Secondary market** (all trading between market participants)
- **Products traded may include:**
  - **Allowances;**
  - **Offset credits;**
  - Allowance and offset credit **derivatives**
- **Specific oversight vs. inclusion in financial market oversight?**

7. ETS Registry



- **Translates the Cap into Allowances** & **defines ownership**
- **Technical backbone of** obligatory and voluntary **transactions:**
  - **Allocation**
  - **Surrender**
  - **Cancellation**
  - **Transfer (Trade)**

Thank you for your attention

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BACKUP

1. Scope & Coverage (II)

Gases

Initially, the EU ETS focused on CO_2
N_2O and PFCs were added in phase III.

Point of regulation

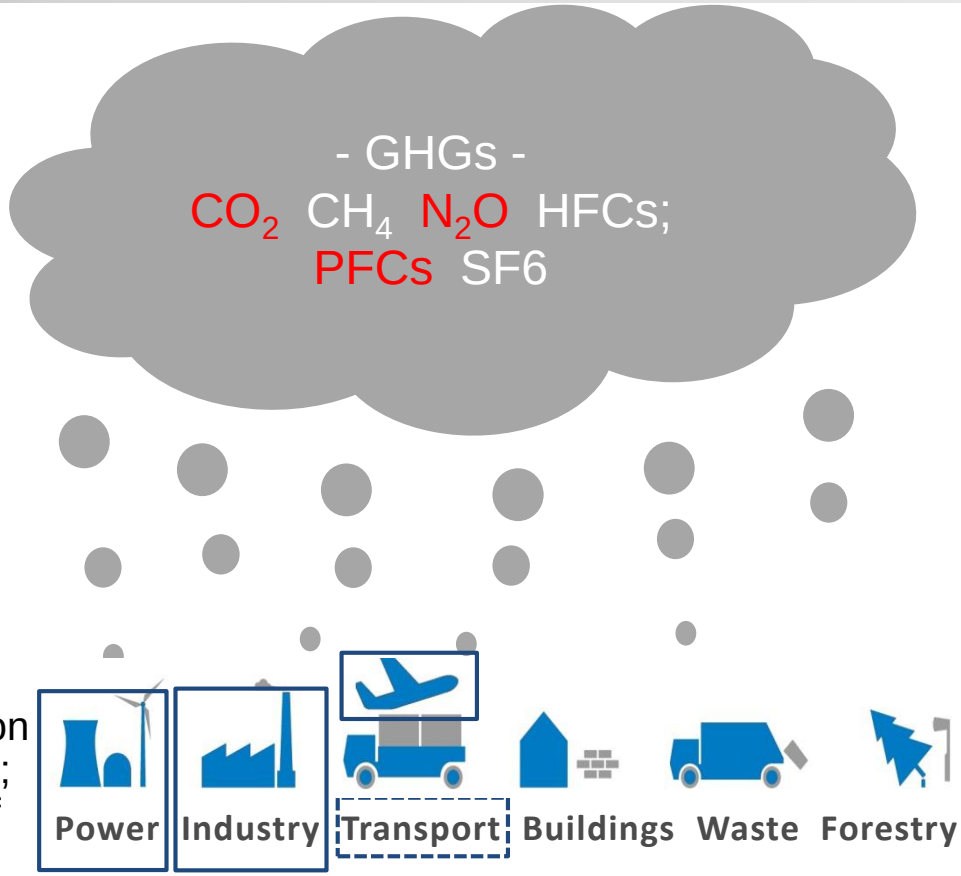
Downstream

Sectors

Energy: Power and heat generation
Industry: Energy-intensive sectors incl. oil refineries, iron and steel, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, and bulk organic chemicals
Aviation

Thresholds

Energy: > 20 MW thermal capacity per installation
Industry: Varying thresholds for different sectors; Small installations with fewer than 25,000 tons of CO_2e may be excluded
Aviation: 10,000t CO_2 /year



EU ETS covers ca. 11,500 installations.

1. Scope & Coverage (III)

Lessons learned: EU ETS

- **Concentration on large installations** in the energy sector and emission intensive industry sectors
- **No inclusion** of sectors
  - with **high reductions costs** (e.g. building sector) or
  - with split responsibilities / **agency problems** (e.g. automotive)
- **"Catch-all definition" of combustion activity** is crucial: A broad definition can include all processes, including the industry sector, e.g. crackers in chemical industry or direct drying equipment
- **Definition of thresholds** for industry activities: Capacity or load thresholds need to reflect different technologies