Best Available Techniques (BAT) for Ukraine

Support for the Establishment of an Emission Trading Scheme (ETS) in Ukraine

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On behalf of:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

of the Federal Republic of Germany

Best Available Techniques (BAT) for Ukraine

Industrial Emissions Directive 2010/75/EU (IED)

AIM:

high level of protection of human health and the environment taken as a whole

OJECTIVE:

Prevention and control of industrial emissions

INDUSTRIAL INSTALLATIONS:

as polluters responsible for a large share of the total emissions in

- Atmosphere
- Soil
- Water

And environmental impacts:

- Waste production
- Energy consumption

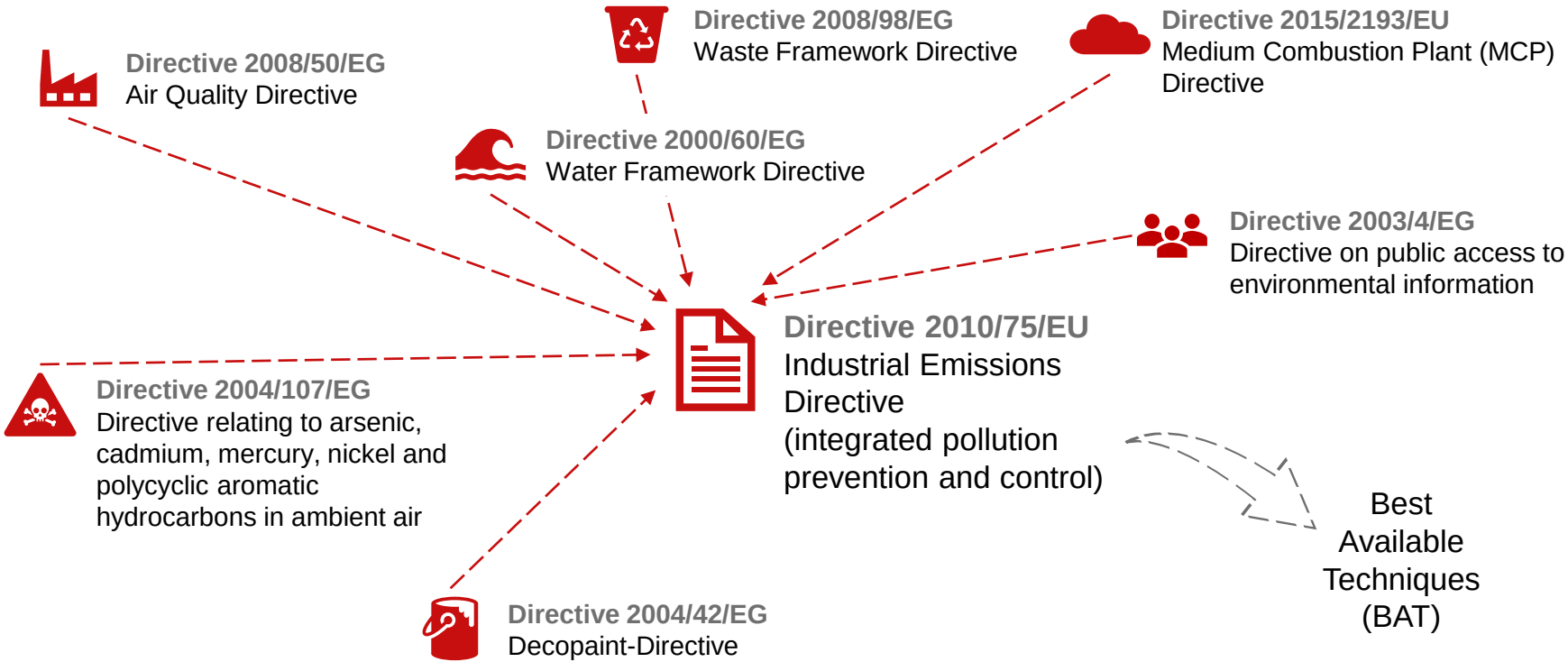
INTEGRATED APPROACH:

- Issuance of permits covering all relevant emissions
- Includes existing as well as new installations

BEST AVAILABLE TECHNIQUES:

establish as compulsory minimum standard as the basis for permitting

Integrated Approach



Best Available Techniques (BAT)

BEST

Most efficient in terms of a high level of environmental protection

AVAILABLE

Developed on a scale which allows implementation in the relevant industrial sector under economically and technically viable conditions

TECHNIQUES

The technology used and the way in which the installation is designed, built, maintained, operated and decommissioned

BREF-Documents

Describe BAT for every listed industrial sector

BAT-CONCLUSIONS

Legally binding **State-of-the-art techniques** in Europe for every listed industrial sectors

The GIZ Project

Political Partner:

Ministry of Ecology and Natural Resources (MENR) of Ukraine

Duration:

02/2019 to 07/2023

Commissioning Party:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) of Germany

Budget:

10 Mio. Euro

Components

Working Package 1

Support on **legal framework** for IED

Working Package 2

Advising on **institutional framework** for IED

Development of software

Working Package 3

Capacity building & trainings

Pilot permitting projects

Working Package 4

Selection of a financial partner

Advisory for BAT investments

Provision of grant funding

Support for the Establishment of an Emission Trading Scheme (ETS) in Ukraine

Climate Policy Instruments

„COMMAND-AND-CONTROL“

Direct regulatory intervention

Usually combined with **legal enforcement** in the case of non-compliance

Straight-forward way with relative **certainty over the environmental effectiveness**

Regulation and Standards

Prohibition of certain products and practices

E.g.

Benchmarks

Technology standards

MARKETBASED INSTRUMENTS

Indirect regulatory instruments

Influencing by changing the economic **incentive structure**

Reflecting the environmental impact of a certain action and **attaching a cost** to it

Signaling environmental impact

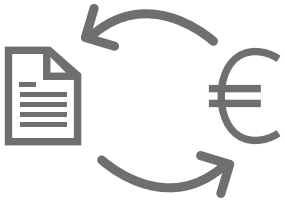
Providing an incentive to the polluter to reduce the impact

E.g.

Carbon taxes

Emission Trading Schemes

Operating Principle: Cap & Trade



SET THE CAP

Determination of the permitted amount of emissions within a certain period of time and territory (by an authority)

Setting the cap for the system

Amount (base year)
- Reduction commitment
= cap

DISTRIBUTE ALLOWANCES

Allocation of the total amount of emissions to the included emitters **in the form of allowances**

Free Allocation („Grandfathering") or auctioning of allowances

1 allowance ≙ 1 T CO_2

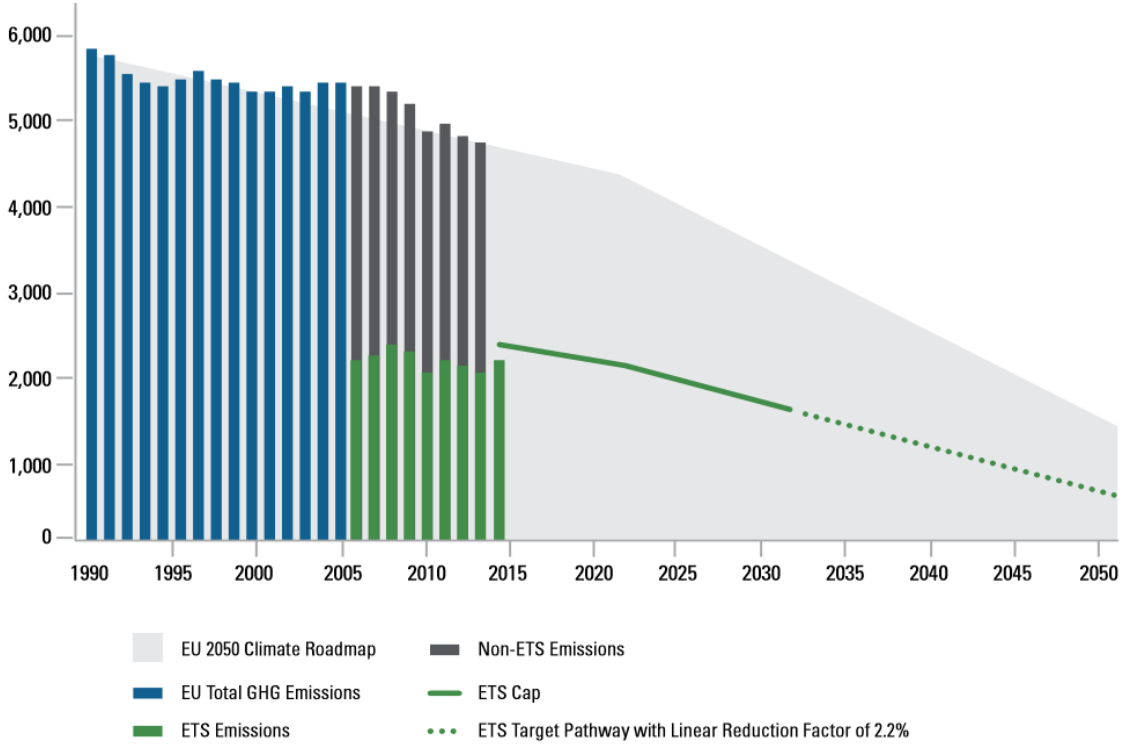
TRADE

Allowance Trading as a facility to **sell surplus or buy further allowances**

Proof of covering the emissions or penalty payment

Possibility to bank surplus allowances for later

EU ETS in EU's broader climate policy



Source: Handbook on ETS design and implementation – ICAP & World Bank's PMR

Development: Price per Allowance in EU ETS

Source: ICAP Allowance Price Explorer

The GIZ Project

Political Partner:

Ministry of Ecology and Natural Resources (MENR) of Ukraine

Department for climate policy

Duration:

09/2017 to 08/2020

Contracting Authority:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) of Germany

Budget:

3 Mio. Euro

Components

CAPACITY BUILDING

Involved parties understand their obligations and responsibilities

Institutional Capacities for the ETS implementation are established

Training Concepts are developed

DMS

Monitoring, Reporting and Verification system robust and well-functioning

Electronic and web-based Data Management System supporting the MRV scheme

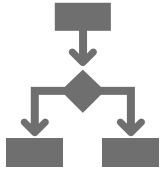
MRV law for Ukraine

CAP DETERMINATION

Ambitious cap carefully determined to contribute to national climate goals

Multiple factors (baseline data, other related policies, projection of future development) considered

Analysis and impact assessments for two szenarios



ALLOCATION

National Allocation Plan containing cap and scope, allocation amounts and methods

Allocation rules developed

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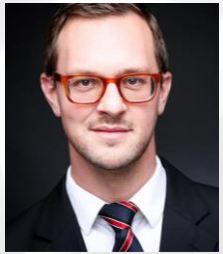

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BACKUP

Affected Sectors

Annex I: Categories of activities

I. Energy industries
II. Production and processing of metals
III. Mineral industry
IV. Chemical industry
V. Waste management
VI. Other activities (use of volatile organic compounds, food industry, farm businesses, etc.)

Integrated Pollution Prevention and Control

Comprehensive approach (prevention of cross-sectoral environmental pollution)

Differentiated approach to regulation taking into account limit value of production capacity

Best Available Techniques Implementation

Monitoring, Reporting and Control

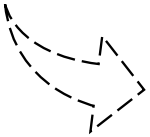
Access to information and **public participation** in decision-making process

EU-wide **basis for the permit system** of industrial installations with particular environmental relevance

Guiding principle

„Living well, within the limits of our planet“

– 7. Environment Action Programme EAP of EU (until 2020)



Turn the Union into a resource-efficient, green and competitive low-carbon economy

Vision for 2050: „[...] Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society”

Directorate-General Climate Action

Main competence: Reduction of greenhouse gas emissions

Framework strategy

Contribution of EU to combating climate change and supporting the protection and recovery of the ozone layer

Reduction of emissions and transition to a low-carbon, secure, climate-resistant and competitive economy

Implementation in Ukraine

Association Agreement

EU-Association Agreement **singed in 2014**

Annex XXX: List of EU environmental legislation to be implemented or regarded in Ukraine

Industrial pollution and industrial hazards:

1. Adoption of Directive **2010/75/EU**
2. Identification of **installations** that require a permit (Annex I)
3. Implementation of **BAT** taking into account the conclusions of the BREFs
4. Establishment of an **integrated permit system**
5. Establishment of a compliance **monitoring** mechanism
6. Establishment of **emissions limit values** for combustion plants
7. Preparation of **programmes to reduce** total annual emissions from existing plants

Current Status

ASSOCIATION AGREEMENT

Signment of the EU-Association Agreement in 2014

Commitment to XXXXXXXXXXXXXXX

Commitment to XXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXX

XXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXX

Aims

Improve **administrative and professional capacities** of competent state authorities and plant operators for implementation of industrial emissions directive

Promotion of **Best Available Techniques** (BAT)

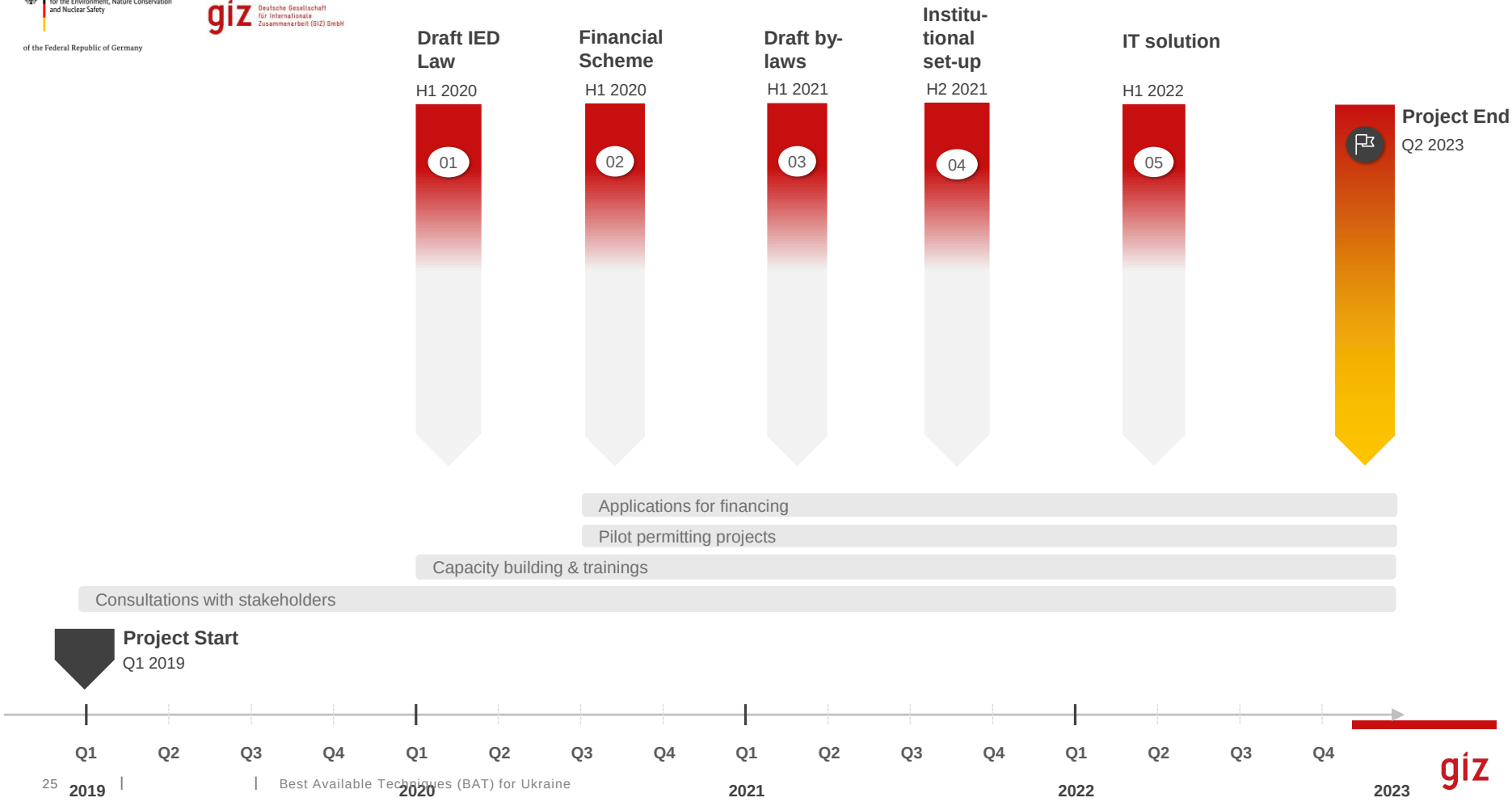
Consistent **application of the concept** of Integrated Pollution Prevention and Control in the industrial sector

Reduced environmental pollution by industrial installations in Ukraine

First Achievements

Study trip to the Czech Republic to learn about similar project and development of the Czech industry

Contracting suitable **partners for the drafting of the legal documents** in copperation with the responsible Ukrainian institutions


Draft IED Law
H1 2020
01
Financial Scheme
H1 2020
02
Draft by-laws
H1 2021
03
Institu-tional set-up
H2 2021
04
IT solution
H1 2022
05
Project End
Q2 2023
Applications for financing
Pilot permitting projects
Capacity building & trainings
Consultations with stakeholders
Project Start
Q1 2019
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
2019
2020
2021
2022
2023

I. Phase 2005 – 2007 (Pilot Project)

KEY FEATURES

Implementation of the EU-wide, free trading system

Determination of the price

Establishment of the **infrastructure for monitoring, reporting and verification** of emissions

EU cap results from **national caps** determined in National Allocation Plans: „Bottom up“

Covering only CO_2 emissions from power generators >20 MW thermal rated input and energy-intensive industry

Almost exclusively free allocation of the allowances

CHALLENGES

Surplus of allowances in comparison to the actual emissions due to the estimation of the cap

→ Oversupply of allowances and **drop in prices**

II. Phase 2008 - 2012

KEY FEATURES

Lower cap on the basis of available data

New countries: Iceland, Norway, Liechtenstein

Nitrous Oxide N_2O included in some countries

Slightly less allowances allocated freely

Auctioning taking place in different countries

Increase of penalty for non-compliance

International credits for emissions available

Union registry takes place of national registries

Including of **aviation** since 2012 (flights starting or landing outside of EU excluded in 2012)

CHALLENGES

Unambitious caps

Extensive use of international project credits

Decrease of emissions during the **world economic crisis** in 2008 stronger than anticipated

„Overallocation“ (to many allowances passed out)

→ Surplus, drop in prices: **incentive for saving not available**

III. Phase 2013 - 2020

KEY FEATURES

Single **EU-wide cap** instead of national caps

→ Downstream regulation instead of bottom-up

Standard method: Auctioning instead of free allocation (Auctioning Regulation and Benchmarking Decisions)

More sectors and gases (nitrous oxide N_2O and perfluorinated hydrocarbons PFC) included

Common regulations for **MRV** (monitoring, reporting and verification)

300 Mio. Allowances as a **reserve for new entrants** to fund the deployment of innovative technologies (NER300)

ACHIEVEMENTS

Solid data basis

EU-wide harmonisation between phase I and III

Learning from mistakes and improving

Achievment of the objectives (emissions of ETS sector 2017 are 26% lower than 2005)

Change in behaviour of companies: **Awareness and consideration** of carbon costs

Acceptance of ETS in companies

Matured and **well-functioning infrastructure and market** for allowance trading

IV. Phase 2021 - 2030

INTENTIONS

Revised legislative framework to achieve targets of the 2030 climate and energy policy framework

Increasing the pace of annual reductions in allowances and **reinforcing the Market Stability Reserve MSR** (to improve the systems resilience)

→ Strengthening thr EU ETS as an investment driver

2023: **Liquidation** of all allowances going beyond the amount of allowances traded in the previous year (ca. 2 Bio.)

Perhaps Liquidation of the allowances of shutdown coal-fired power plants

Linking of the Swiss ETS to the EU ETS

Innovation Fund and Modernization Fund replacing the NER300

OUTLOOK EU ETS

Support of industry and power sector with **transition to low-carbon** economy

Accounting for over three-quarters of international carbon trading

encouragement for other countries and regions

Aim to link ETS with other compatible systems

Plan to reducing emissions until 2020 by 21% compared to 2005

Implementation in Ukraine

Current Status

ASSOCIATION AGREEMENT

Signment of the EU-Association Agreement in 2014

Commitment to **transpose the ETS Directive** into national law

Commitment to **establish the european emission trading scheme** in Ukraine

MRV LAW

Draft of the **law on monitoring, reporting and verivication (MRV)** successfull first reading in parliament in February 2018

Development and **establishment of an electronic data management system (DMS)** for facility-based greenhous gas emissions