



## **Specific JI approaches for baseline setting and monitoring in industrial energy-efficiency projects**

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# 1

## **Overview of energy-efficiency in the industrial sector**

## General picture of heavy industry



Overhaul of industry is **overdue**. Investment projects are large, complex and have long lead times.

Each project consists of several subprojects. Often the investment is considered as a **package**.

Drivers for these investments are:

- **Reducing** energy consumption due to ever increasing energy prices;
- Improve **quality** of product and/or **increase** production capacity;
- **Revenues** of carbon credits.

## Needs of energy-efficiency projects



Typically for Annex-I countries for JI we talk about **renovating** the **existing** (Soviet) industrial infrastructure whereas in most non Annex-I countries we talk about **new** infrastructure.

The benefits of energy-efficiency is **obvious to everybody** and as such very attractive. But due to barriers the project does not happen. Therefore energy-efficiency needs all support it can get.

For JI projects the environmental integrity is **per definition** ensured as for each ERU one AAU is cancelled.

Focus should therefore be on the environmental benefits and create the **extra incentive** that energy-efficiency projects need!

# 2

## **Specific baseline approaches**

## Baseline setting



### Theory:

1. Defining **options** available to project host;
2. Define alternative scenarios;
3. Select most likely scenario as the baseline scenario.

### Practise:

1. Many **alternative** scenarios can be defined. However the alternative scenarios are never **seriously** considered by the project host. So difficult to prove that they are unlikely (i.e. not the baseline scenario);
2. Subprojects are often **interlinked** and/or are considered as one investment and not separate;
3. Energy prices defined by (geo)politics: forecast of future energy prices difficult.

# Solutions for energy-efficiency projects



## JI solutions:

- **Baseline:** Take as a default the baseline scenario being a continuation of the existing situation;
- **Subprojects:** Keep the subprojects together as one project (do not unbundle);
- **Energy prices:** Take in the financial analysis the assumptions as used in the decision making process. But in the sensitivity analysis take higher percentages for testing the robustness.

Given the fact that environmental integrity is **per definition** ensured in JI, there is no inflation of the capped environment!

# 3

**“Borderline” between the application of approved CDM methodologies and specific JI approaches**

## Borderline syndrome?

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Several options:

- Apply **100%** CDM methodologies when available, or
- Justify **deviations** from CDM methodologies, or
- Make use the underlying **principles** of a certain methodology. This can be cross-sectors!

But don't turn it around: Some AIEs require to justify why a CDM methodology is **not** used.

# 4

## **Standardized baselines/multi-project emission factors**

## Standardized baselines

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Multi-project factors is most necessary for electricity baseline.

Three country electricity baselines have been approved by the JISC:

- Bulgaria
- Lithuania
- Ukraine

For **Russia** either a conservative country baseline or a regional baseline is to be developed.

# 5

## General issues in specific JI approaches

## General issues



The main bottleneck in pushing projects for final determination are the AIEs. Delays are caused by:

- Lack of human resources in general (CDM & JI)
- Lack of trained JI auditors in specific who are unacquainted with the principles underlying JI
- Very long response times (up to six months)
- CDM is bulk of the projects and hence auditors are very CDM focussed
- Risk averse: Afraid of reputations risks caused by reviews
- AIEs are technically orientated and (in CDM) are used to a tick-box approach rather than using own judgement (in JI)

## General issues (cont'd)

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Many project, besides energy-efficiency, also **increase** production (capacity).

The baseline for this incremental production requires a different baseline approach.



Such an approach is currently being developed by Global Carbon for the cement industry and the metallurgical industry.

## GC projects



Global Carbon has current 17 (out of 28) mandates to develop **energy-efficiency** projects. Of those projects:

- Five projects are in the **cement** sector
- Three projects are in the **metallurgical** sector
- Four project are in other industrial sectors
- Five projects are in the district heating sector

The projects are located in Bulgaria, Ukraine and the Russian Federation.

One energy-efficiency project obtained final determination (JI0001 Podilsky). A **second** energy-efficiency project for the metallurgical sector will be forwarded soon.

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