

# GUIDELINES FOR THE ESTABLISHMENT OF SECTOR SPECIFIC STANDARDIZED BASELINES

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## OVERVIEW

- **Background**
- **Definitions**
- **Applicability**
- **Four types of measures**
- **Level of aggregation**

## **Standardized baseline as per CMP6**

- **Baseline established for a Party or a group of Parties to facilitate the calculation of emission reductions and removals; and/or**
- **Used for determination of additionality for CDM project activities, while providing assurance for environmental integrity.**

## **CMP6 decisions**

- **Parties, PPs, and other admitted entities, through the host country's DNAs, may submit proposals for SBs, for consideration by the Board;**
- **Board to develop SBs, as appropriate, in consultation with relevant DNAs, taking into account the outcome of the workshop on SBs.**



## **DEFINITIONS USED IN GUIDELINES**

- **Output**
  - **Goods or services**
  - **Comparable quality, properties, and application areas**
  - **e.g. clinker, lighting, residential cooking**
- **Sector**
  - **A segment of a national economy**
  - **Delivers defined output**
  - **Characterized by output**
- **Positive list**
  - **List of emission reduction activities**
  - **Automatically additional**
  - **Location, technology/measure, size**



## DEFINITIONS

### Measures

- **Broad class of GHG emission reduction activities**

### **Four type of measures currently covered:**

- **Fuel and feedstock switch**
- **Switch of technology with or without change of energy sources (including energy efficiency improvement)**
- **Methane destruction**
- **Methane formation avoidance**



## **APPLICABILITY**

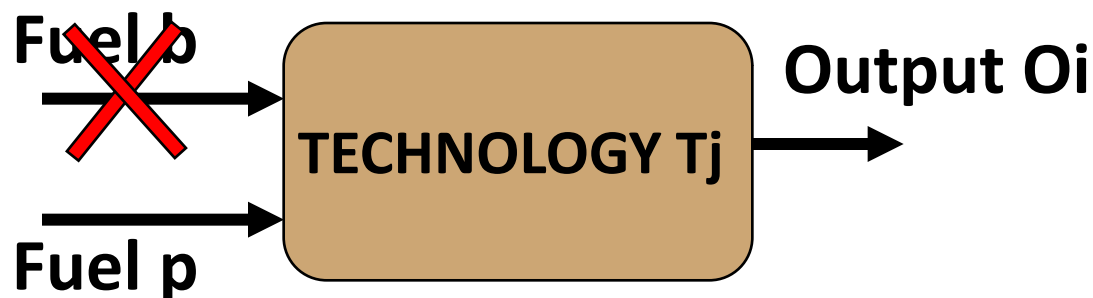
- **Sectors**
- **Stationary sources, but not A/R**
- **Most types of project activities**
- **Standardized baselines**
  - **For a country or a group of countries**
  - **Demonstrate additionality: positive lists**
  - **Identify baseline scenario**
  - **Determination of baseline emissions**



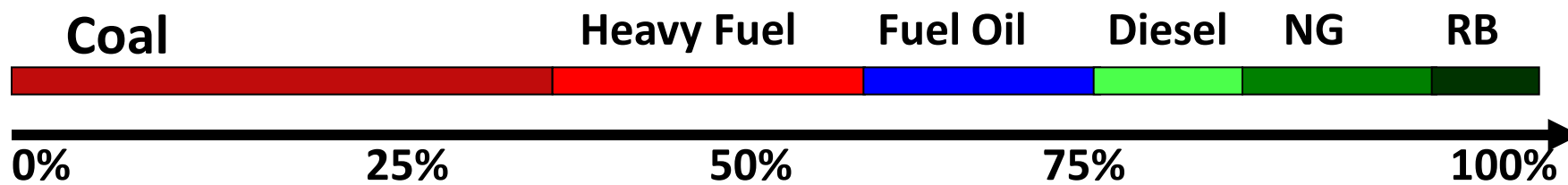
## **Steps for establishing standardized baselines**

- Identify host country, output, sector and measure**
- Establish additionality criteria (e.g. positive lists)**
- Identify the baseline**
- Determine the baseline emission factor**

## MEASURE 1: FUEL/FEEDSTOCK SWITCH

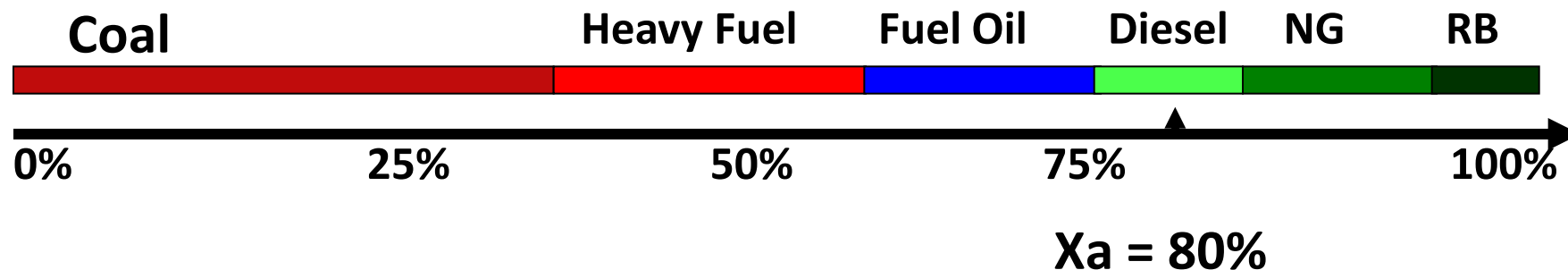


- Define sector (product  $O_i$ ) and technology  $T_j$
- Identify fuels/feedstocks for  $T_j$
- Identify corresponding percentages of output
- Rank the carbon intensity of the fuels/feedstocks





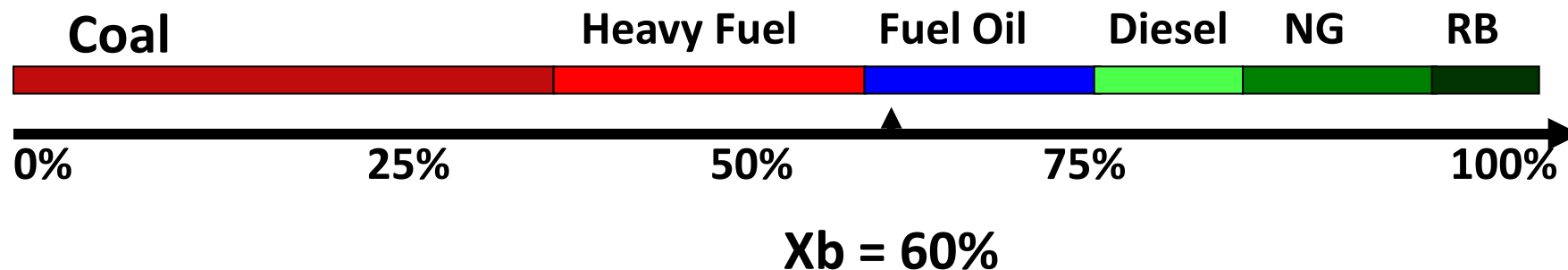
## FUEL/FEEDSTOCK SWITCH - additionality



- Identify the fuels /feedstock with higher CEFs and contributing to production of  $X_a\%$  of the output  $O_i$  of the sector based on technology  $T_j$ .
- The positive list for additionality demonstration:
  - Cleaner than the fuels making up  $X_a\%$
  - NG and RB are eligible
  - Check their commercial attractiveness and barriers



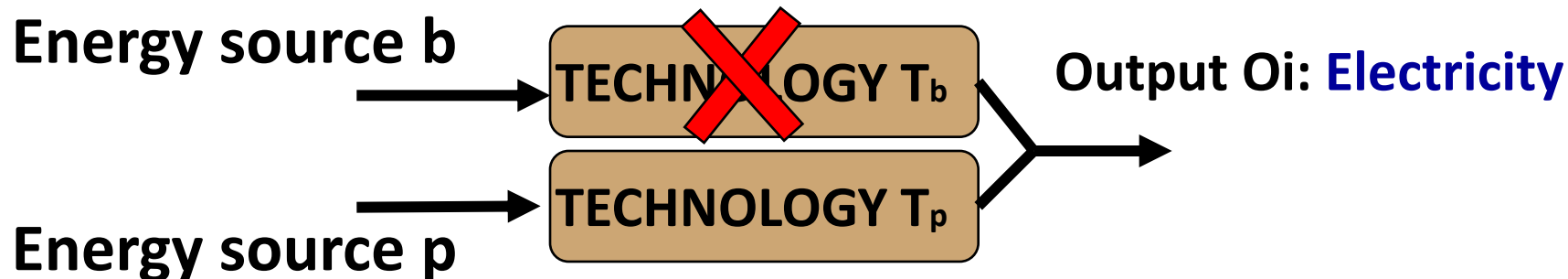
## FUEL/FEEDSTOCK SWITCH – baseline fuel



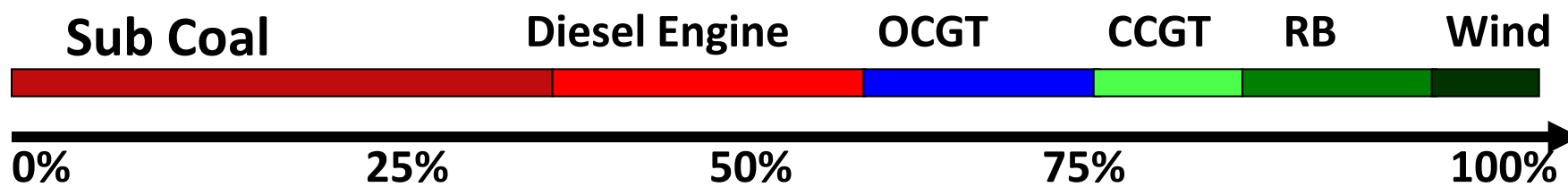
- Identify the fuels /feedstock with higher CEFs and contributing to production of  $X_b\%$  of the output  $O_i$  of the sector based on technology  $T_j$ .
- Baseline fuel:
  - Cleanest among the fuels making up  $X_b\%$
  - Fuel oil
- Baseline emission factor
  - IPCC fuel oil emission factor (t CO<sub>2</sub> / t fuel oil) x Design specific fuel oil consumption (t fuel oil / t  $O_i$ )



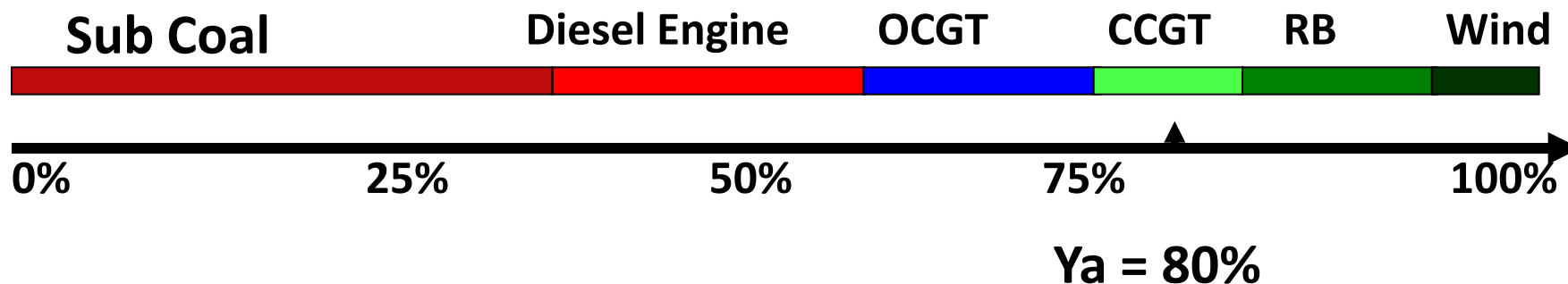
## MEASURE 2: TECHNOLOGY SWITCH



- Define sector (product O<sub>i</sub>)
- Identify technology with or without energy source
- Identify corresponding percentage of output
- Rank the carbon intensity of the technologies



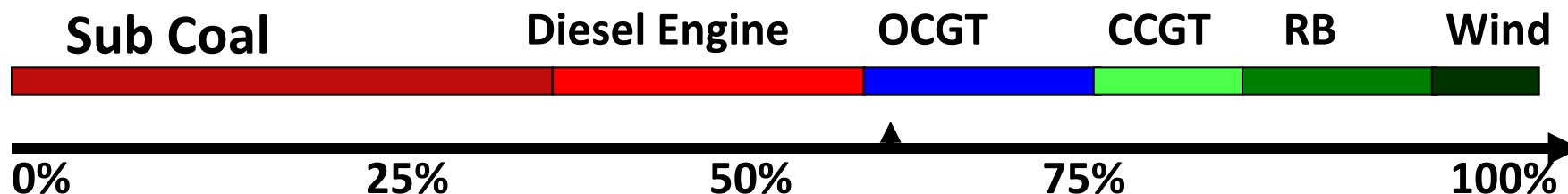
## TECHNOLOGY SWITCH - Additionality



- Identify the technologies with higher CEFs and contributing to production of  $Y_a\%$  of the output  $O_i$  of the sector.
- The positive list for additionality demonstration:
  - Cleaner than the technologies making up  $Y_a\%$
  - Wind and RB are eligible
  - Check their commercial attractiveness and barriers



## TECHNOLOGY SWITCH – baseline technology



**Yb = 60%**

- Identify the technologies with higher CEFs and contributing to production of Yb% of the output O<sub>i</sub> of the sector
- Baseline technology:
  - Cleanest among the technologies making up Yb%
  - OCGT
- Baseline emission factor
  - IPCC natural gas emission factor (t CO<sub>2</sub> / t natural gas) x Design specific natural gas consumption (t natural gas / t O<sub>i</sub>)



## **MEASURE 3: METHANE DESTRUCTION**

- **Additionality**
  - **If the level of CH<sub>4</sub> destruction undertaken by a measure is higher than what is mandatory and enforced, the measure of destruction is additional.**
- **Baseline**
  - **The baseline level of destruction is the mandatory and enforced level of destruction.**
- **0% for all the 8 countries which participated in the survey for this measure**



## **MEASURE 4: METHANE FORMATION AVOIDANCE**

- **Additionality**
  - **If the proposed disposal and treatment method is not mandatory and enforced and is less attractive, then the measure is additional.**
  - **Examples: landfill aeration, composting, use of agriculture residues**
    - **All face technology barrier in the 8 countries which participated in the survey for this measure.**
- **Baseline**
  - **The baseline is the most commonly used disposal and treatment method.**
  - **Examples: agricultural residues are burned in the field; municipal waste is landfilled.**



## **LEVEL OF AGGREGATION**

- **Generally one sector in one country**
- **Further aggregation**
  - **Based on homogeneity**
  - **Geographically, may be expanded to a group of countries**
- **Disaggregation**
  - **Based on heterogeneity**
  - **Geographically, may be restricted to a region within a country (e.g. regional grid)**
  - **Availability of certain fuels/feedstocks**





## **ISSUES IN CURRENT CDM ADDRESSED BY GUIDELINES**

### **Complexity issues**

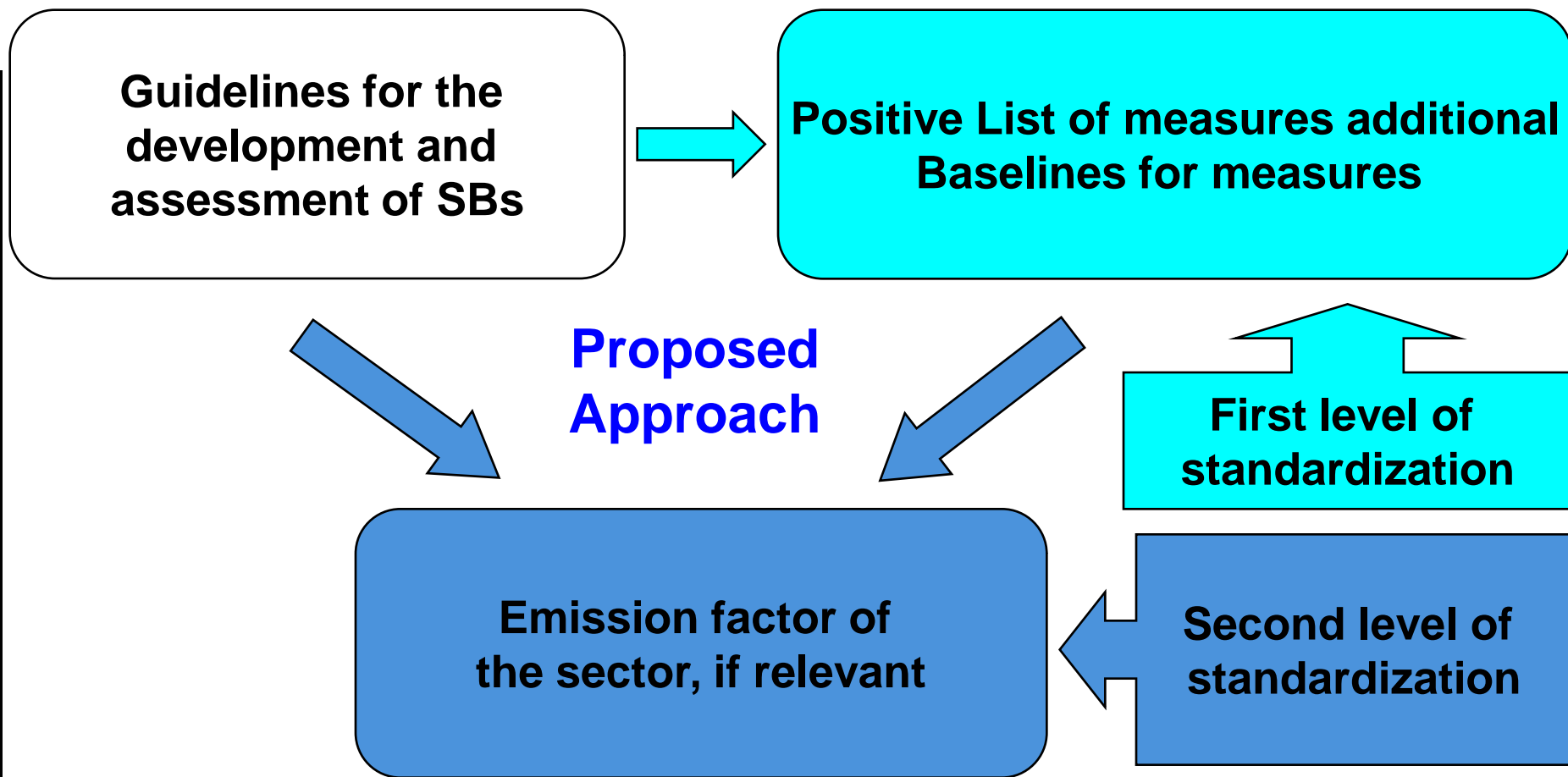
- **Comparative analysis or financial benchmark;**
- **Realistic and credible alternative;**
- **Baseline is the most attractive alternative while the list of alternatives is not exhaustive**

### **Issues specific to performance benchmark**

- **Performance benchmark and additionality;**
- **Free riders;**
- **Data intensity;**
- **Emission factor for complex multi product sectors.**



## Guidelines for the establishment of sector specific standardized baselines



**Guidelines have to be enough objective and simple both at the setting and at the use of the standard**



**THANK YOU!**

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