

Agenda item 4.1 (c) (i)

Paragraph 35 of the annotated agenda

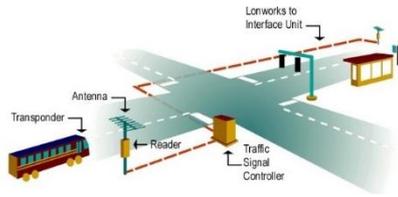
AMS-III.xx: Efficient Operation of Public Transportation

CDM EB 102

Bonn, Germany, 25 to 28 March 2019



Types of projects covered



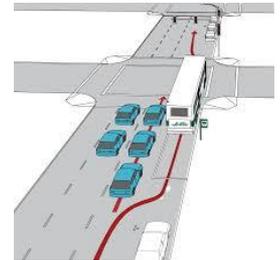
Implementation of ITS measures

Express service connecting high demand stops



Re-design of bus routes

Queue jump lane



Construction of viaducts, tunnels or other improvements

Rehabilitation of pavement with high-quality pavement



Priority lanes for buses



Background

- EB 89: concept note to develop new top-down methodologies in transport sector;
- MP 76: draft methodology recommended
- EB 100: draft methodology considered
- EB 101: considered the draft methodology and requested MP to revise to:
 - include simplified methods to reflect the secondary effects on the baseline during the crediting period;
 - whether total VKM is an appropriate indicator.



Purpose

The purpose is to address the concerns expressed by the Board at EB 101.



Key issues and proposed solutions

Previous version	Issue	Current Version
Emission reductions adjusted by the ratio of Vehicle Kilometers (VKM) in year y and year 1	Monitoring of VKM would add significant monitoring burden to the project	Emission reductions adjusted by the ratio of specific energy consumed per passenger kilometer in the baseline and in year 1 based on a campaign. An alternate option to use literature sources to establish the ratio is also included



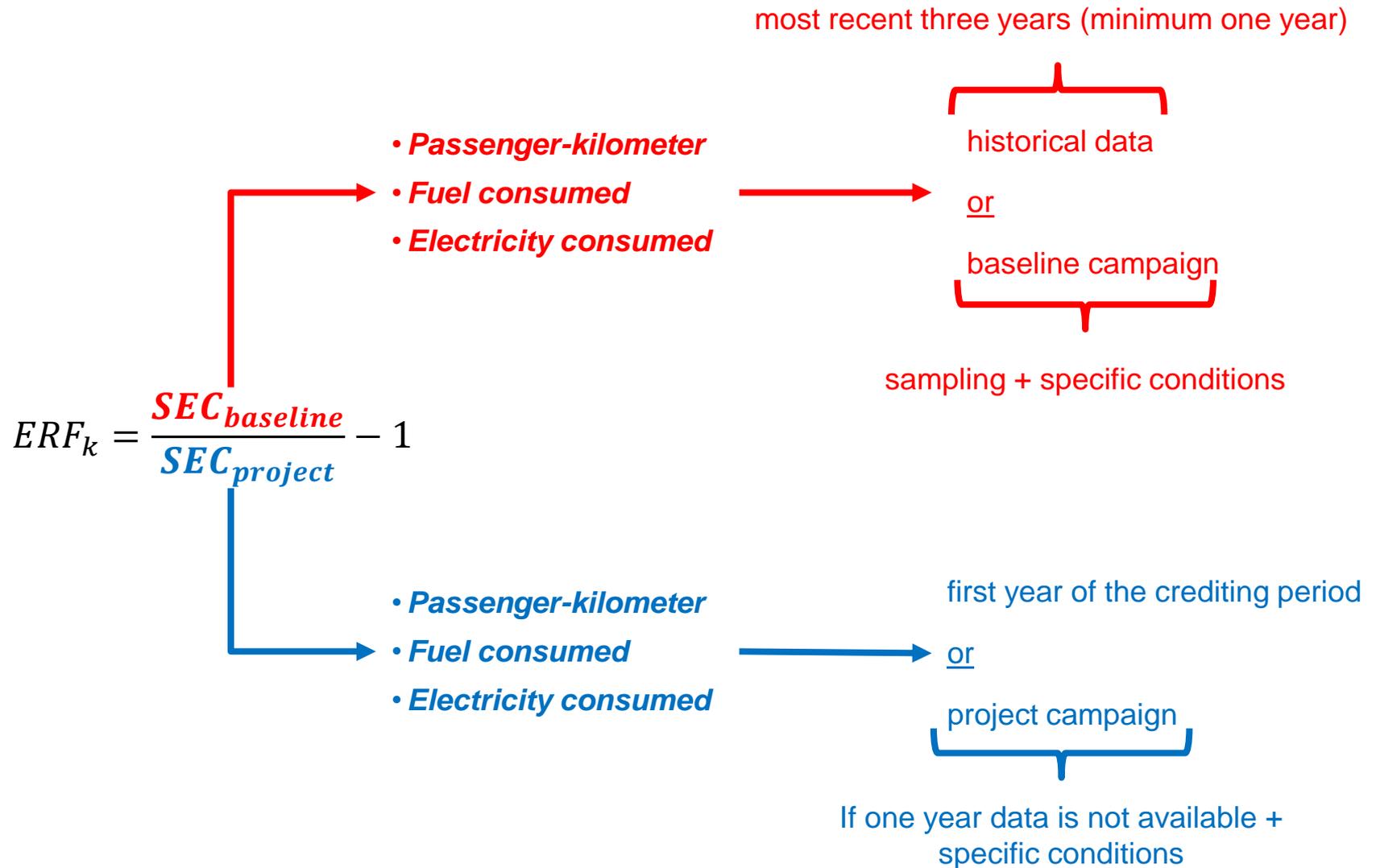
Key issues and proposed solutions

- **Emission reductions in each route:**
 - Passenger-kilometer ($P_{k,y}$);
 - Average distance travelled by passengers ($AVD_{PKM,k,y}$);
 - CO₂ emission factor per passenger-kilometer ($EF_{CO_2,PKM,k,y}$);
 - Emission Reduction factor (ERF_k).

$$ER_y = \sum_k P_{k,y} \times AVD_{k,y} \times EF_{CO_2,PKM,k,y} \times ERF_k$$

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- a) **Measurements (baseline and project)**
 - b) **Literature, reports, studies**

Key issues and proposed solutions



Key issues and proposed solution

Applicability Conditions

- The data to determine specific energy consumed (SEC) in baseline and project is from the same cohort of buses from which Emission Reduction Factor (*ERF*) was calculated;
- Measures impacting the occupancy of buses shall not be implemented before the SEC in the project route is determined.
- Buses may be replaced by more efficient buses or by buses with a higher capacity;
- Not applicable to projects implementing a new BRT or expanding an existing BRT by creating new lanes.



Impacts

The proposed new methodology will broaden the portfolio of methodological standards in the area of transport.



Recommendation to the Board

The MP recommends that the Board to approve the methodology.

