#### United Nations Framework Convention on Climate Change

Agenda item 4.1(c)
Paragraph 29 of the annotated agenda

# AMS-III.XX: Efficient operation of public transportation

**CDM EB 100** 

Bangkok, Thailand, 27 to 31 August 2018



## **Procedural background**

- EB 89 initiated work in the development of a methodology for improved operation of public transportation
  - a) traffic management measures, improved programming of transit routes, implementation of systems for urban transport management
- MP 74 considered an information note containing the draft framework for a new methodology, identifying which are the elements that can be applied to identify the baseline, assess additionality, calculate emission reductions and develop the monitoring plan. A call for public inputs was launched and no comments were received.



## Types of projects



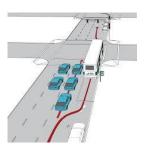
Implementation of ITS measures

Express service connecting high demand stops



Re-design of bus routes

Queue jump lane





Construction of viaducts, tunnels or other improvements

Rehabilitation of pavement





Priority lanes for buses

Introduction of higherquality pavement





## **Applicability**

- a) Implementation of ITS measures to improve the operation of buses;
  - ITS is an operational system of technologies that improve the operating capabilities of the overall system (e.g. sensors installed in buses and in roads that detect buses approaching a crossroad and gives a traffic light priority for the buses);
- b) Improvements in bus routes such as:
  - · Re-design of bus routes;
  - Construction of viaducts, tunnels for improving infra-structure of dedicated bus lanes that are not part of a BRT system, eliminating traffic lights or roundabouts and improving the traffic flow of buses;
  - Implementation of priority lanes for buses that are not part of a BRT system;
  - Implementation of an express service connecting high demand stops by reducing the number of intermediate stops during peak hours;
  - Implementation of a bus queue jump lane;



#### **Emission reductions**

#### **Baseline emissions**

- CO<sub>2</sub> emitted per passenger-kilometer transported in the absence of the measures (tCO<sub>2</sub>/pkm) in each baseline route;
- Baseline emission factor:
  - a) Historical Data
    - For each baseline route, the most recent three years of the following operational data (minimum of one year, if three years data are not available):
      - number of passenger-kilometres transported;
      - type and quantity of fossil fuels consumed by buses;
      - quantity of electricity consumed by the buses;
      - CO<sub>2</sub> emission factor of the electric grid.



### **Emission reductions (cont)**

#### **Baseline emissions (cont)**

- Baseline emission factor:
  - b) Baseline Campaign
    - Allowed if one full year of historical data is not available;
    - For each baseline route, a survey to determine the following operational data:
      - number of passenger-kilometres transported;
      - type and quantity of fossil fuels consumed by buses;
      - quantity of electricity consumed by the buses;
      - CO<sub>2</sub> emission factor of the electric grid.
    - The baseline campaign shall:
      - be conducted through an entire week that neither correspond to a public holiday nor school vacations; and
      - shall be representative for the average demand for transport services, and fuel consumption of the baseline route



# **Emission reductions (cont.)**

#### **Project Emissions**

 Amount of fuel and electricity consumed by the vehicles traveling in the project route



# **Impacts**

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



#### **Recommendation to the Board**

The secretariat recommends that the Board approve the methodology.

