Agenda item 4.1 (c) (ii)
Paragraph 37 (b) of the annotated agenda

Revision to AMS-II.T “Emission reduction through reactive power compensation in power distribution network”.

CDM EB 102

Bonn, Germany, 25 to 28 March 2019

Background

- Request for revision to AMS-II.T “Emission reduction through reactive power compensation in power distribution network”, (AMS-II.T) (SSC_737) was submitted by a stakeholder, Competence Centre for Climate and Energy of GFA Consulting Group.

Purpose

- Request for revision **proposes to broaden applicability of AMS-II.T** with an **additional option to calculate emission reductions** due to implementation of reactive power compensation (RPC) facilities at small and medium-sized enterprises (SMEs).

Key issues and proposed solution

Scope/Applicability of AMS-II.T

- **Covers** project activities that reduces emissions by **saving energy losses in T&D lines due to power factor improvement through installation of RPC** at industrial facilities;

- **Restricts** application to industrial facilities **with large internal distribution network** and where data/parameter required to estimate energy-savings are not available;

Key issues and proposed solution

- Request for revision proposal **includes additional options** to calculate energy-savings/ERs :
  1. **Option 1:** Determination of loss reduction/energy savings **using power flow simulation (PFS) method;**
  2. **Option 2: Detailed approach including consideration of loss reductions in the internal distribution system** + option to include CU losses of facility transformer(s)**.**

- **Provides provision on**:
  - **Accounting of additional energy savings** associated with reduced CU losses of facility transformers.

Key issues and proposed solution

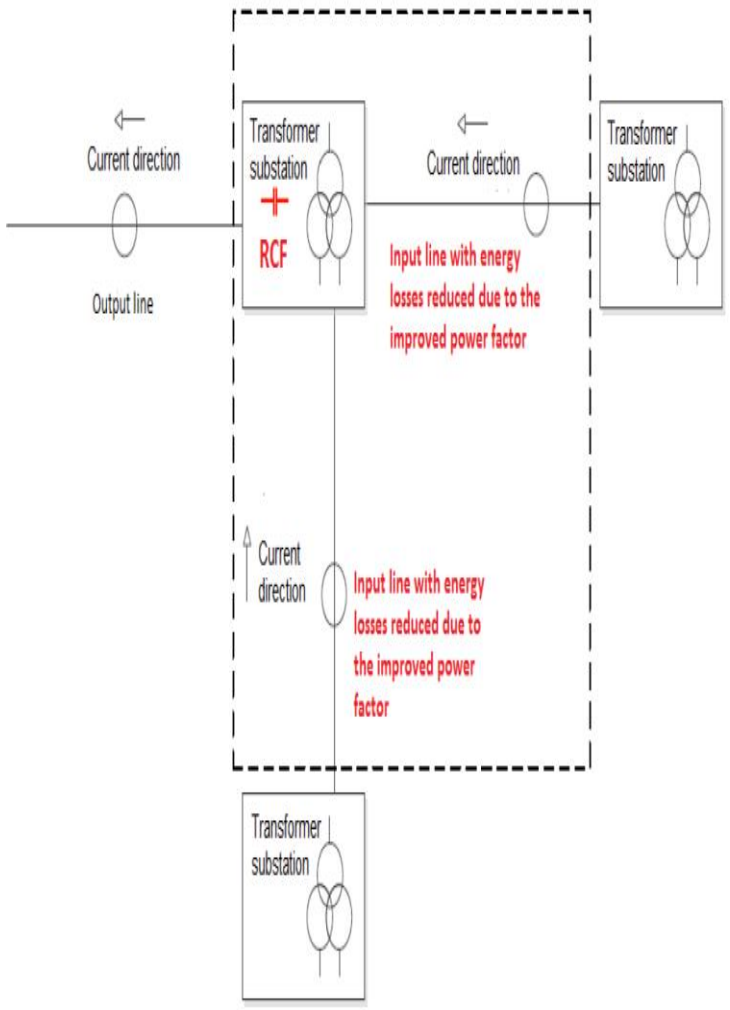
Option 1: Determination of loss reduction/energy savings using power flow simulation (PFS) method

- Requires detailed information of the T&D system including location and technical data to carry out PFS.
- Estimates loss reduction with and without RPC using 5% error margin (in-line with AM0118).
- Applicable to load >=7 MW and 5 MVAr per bus / node of the network to avoid uncertainty due to smaller load.

Key issues and proposed solution

Option 2: Detailed approach including consideration of loss reductions in the internal distribution system.

- For projects connected to transmission network, only upstream transmission losses are applied. Default value of 3% for transmission losses is used.
- Estimation of additional energy savings due to reduced CU losses of facility transformers is **optional** and **applied when certain conditions are met**.



Impacts

- Proposed revision will **broaden the applicability** of the methodology and may facilitate the development of CDM projects.

Recommendation to the Board

- MP **recommends that the Board to approve** proposed revision to AMS-II.T.