



CDM: Recommendation Form for Small Scale Methodologies (version 01)
(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)

<i>Date of SSC WG meeting:</i>	26–29 April 2010, SSC WG 25
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Revision of AMS-II.C to allow demand-side efficiency to be achieved by addition of new system component(s)
<i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i>	AMS-II.C “Demand-side energy efficiency activities for specific technologies”
<i>Name of the authors of the query:</i>	Mr. Pratap Kumar Malempati Institution: Reliance Infratel Ltd. Pratap.malempati@relianceada.com , mpratap@gmail.com

Summary of the query:

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from PP:

Background of PoA:

As communicated to CDM-EB, vide letter dated 23/12/2008, project participant is implementing a Programme of Activity (PoA). PoA involve installation of Free Cooling Fans (FCF) at nearly 30,000 telecommunication shelters located within the geographical boundaries of India.

Telecommunication shelters are part of the telecom infrastructure used by wireless communication sector. Airconditioners are installed as a part of standard equipment, to maintain the temperature conditions of telecom equipment as specified by the Original Equipment Manufacturers (OEM). Non-maintenance of temperature conditions will have severe technical implications, specifically those with functioning of telecom equipment.

Nearly 60% of the electricity consumed in communication shelter is attributed to ventilation requirements served through the air conditioners. FCF is associate energy efficiency equipment, designed and developed by Project participant. FCF works in tandem with the air-conditioner installed at telecommunication shelter. By installing FCF, operational hours of air conditioners (higher electricity consuming) are substituted with operational hours of FCF (lower electricity consuming) thus leading to reduced electricity consumption and GHG emissions.

Extent of energy savings as a result of FCF installation is estimated to be equivalent to 80 GWh.

Objective of PoA and intent of AMS - II.C are similar. i.e., achieving Demand-side energy efficiency. Proposed PoA is an energy efficiency measure aimed at reducing energy intensity of telecommunication shelters which could be replicated by other entities embracing the technology developed by the managing entity. This will lead to significant capacity building, not only in India, but in all other tropical countries wherein the weather conditions are similar and also in the developing countries, wherein the demand for telecom services is growing at a rapid pace.

Service involved in both baseline and under PoA is requirement of air-conditioning (measured in terms of

kWh /kJ) as specified by OEM. Such services, in baseline scenario, were provided by ventilation system comprising of Air-conditioner. However In the project scenario, such services are provided by ventilation system comprising of Air-conditioner and FCF.

Efficiency of service, i.e., air-conditioning requirement, is improved as a result of installing FCF, leads to demand-side energy efficiency.

After taking technical and financial parameters into consideration, managing entity decided to implement of PoA with CDM consideration. Minor amendment would enable the managing entity implement the program as indicated in communication dated 23/12/2008 (attached as Annexure - I).

Recommendation by the SSC WG:

Please use the space below to provide amendments/change (in your expert view, if necessary).

Please refer to paragraph 12 of the meeting report of the SSC WG 25 (http://cdm.unfccc.int/Panels/ssc_wg).

Answer to authors of query by the SSC WG:

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

After consideration of the information that has been generously provided by the author, the SSC WG has agreed not to recommend the proposed changes to the Executive Board because the SSC WG believes that such changes would not be sufficient for the methodology to be used for conservatively determining emission reductions from the proposed project. Given that ambient and shelter temperatures/humidity and possible partial load operation of the air conditioning (AC) equipment affect the energy consumption of the air conditioning units, the simple equations of AMS-II.C do not adequately capture the actual energy efficiency gains for such a situation. That is, the SSC WG is of the opinion that the operating hours of the Free Cooling Fan (FCF) may not be used to conservatively estimate the baseline energy consumption of the air conditioners (i.e., one hour of project FCF operating equals one hour of baseline AC operation) in an equation that multiplies project operating hours (AC plus FCF) times air conditioner rated capacity. This is because the power consumption of the AC units can vary and it may be that the AC units run fewer hours than the AC/FCF combination since the AC units would presumably more quickly lower indoor temperature and humidity than a FCF.

However, the project proponent may wish to consider determining baseline energy conditions by either (a) using a baseline control group that is monitored during all or at least most of the crediting period, and/or (b) using a test group, prior to project installation, to determine a more accurate equation for calculating baseline electricity consumption as a function of factors such as telecommunication equipment power rating and ambient and shelter temperatures and humidity. Such a documented and reliable regression equation, as suggested in item (b), would be used to determine baseline emissions versus the simplified equation from AMS-II.C that is proposed. It is possible that such an analysis will confirm that FCF hours equal AC hours, but that would need to be documented. If it can be documented then this may be a basis for further consideration of modifications to AMS-II.C for this project. Or alternatively a new methodology may be proposed.

In terms of modifications to AMS-II.C paragraph 4, the modification is not necessary since the language indicates "...the rated capacity or output or level of service..." As the proposed project does not appear to change the level of service, it meets the requirements of paragraph 4 even if the electricity capacity ratings of the equipment (AC plus FCF) is increased by 25%.

Signed by the Chair, Mr. Peer Stiansen

Date: 29/04/2010

Signed by the Vice-Chair, Mr. Hugh Sealy

Date: 29/04/2010

Information to be completed by the secretariat

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