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CDM Executive Board c/o UNFCCC Secretariat P.O. Box 260124 D-53153 Bonn Germany

Subject: Simplified modalities for demonstrating additionality of small scale renewable energy and energy efficiency project activities in response to the EB call for public inputs at its 53<sup>rd</sup> meeting.

Honorable Members of the CDM Executive Board,

We welcome the opportunity to contribute to the development of simplified modalities for demonstration of additionality of small scale renewable energy and energy efficiency projects as per the paragraph 24 on further guidance relating to clean development mechanism 2/CMP.5. We understand that these simplified modalities are intended for project activities up to 5 megawatts that employ renewable energy as their primary technology and for energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 gigawatt hours per year.

We would like to request the Executive Board and the SSC-WG to elaborate on the rationale behind the creation of this new category of 'micro-scale' projects. The small-scale category and Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities were created with the objective to facilitate faster development of small projects. Keeping in view the existing simplified procedures, our submission focuses on proving "automatic additionality" for such 'micro-scale' projects. We strongly recommend that such approach be extended to Type III projects, bundled projects and Programme of Activities (PoA), provided each of the projects, activities or CDM Project Activities (CPA) are below the proposed threshold. In preparing these recommendations, information on the demonstration of additionality of registered CDM small scale project activities and analysis of the World Bank's 10-year experience in promoting carbon finance initiatives was considered.

We will be glad to provide any further information and clarifications as necessary.

With kind regards,

Rama Chandra Reddy

Acting Team Leader, Policy and Methodology Carbon Finance Unit, The World Bank

# RECOMMENDATIONS REGARDING THE SIMPLIFIED MODALITIES FOR DEMONSTRATING ADDITIONALITY OF SMALL SCALE RENEWABLE ENERGY AND ENERGY EFFICIENCY PROJECT ACTIVITIES IN RESPONSE TO THE EB CALL FOR PUBLIC INPUTS AT ITS 53<sup>RD</sup> MEETING

#### **Background**

The existing simplified baseline and monitoring methodologies for small-scale CDM project activity categories<sup>1</sup> recommend the use of only barrier analysis for demonstration of additionality for small scale project activities, however recent guidelines on the "Objective assessment of the barrier analysis" and a narrow interpretation of the Validation and Verification Manual has blurred the distinction between small scale and large scale projects pushing additionality assessment more towards analysis of impact of barrier on investment decision or investment analysis. This places an unreasonable burden in terms of data expectations, quantitative analysis and procedural requirements on small scale projects.

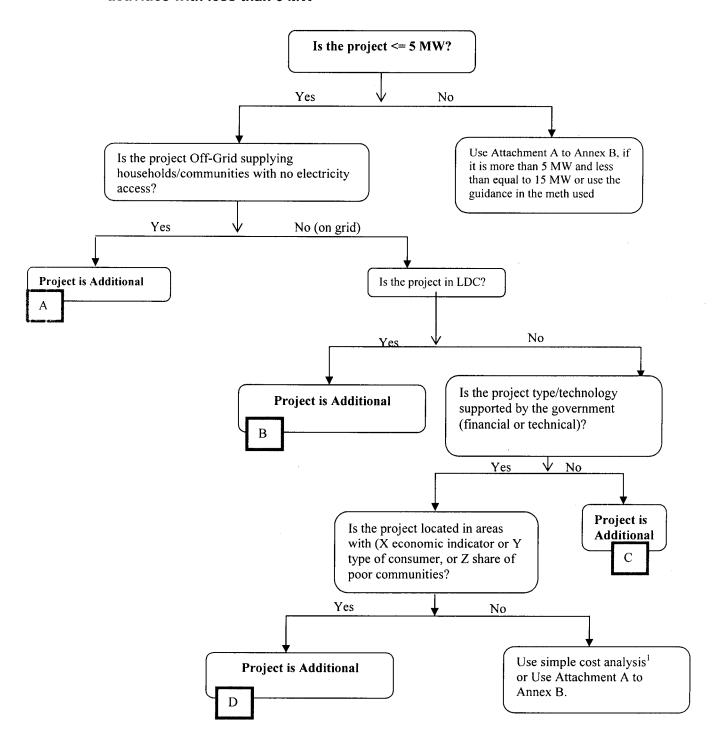
Recognizing the need for further simplification of these procedures especially for small scale project activities, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, as per the paragraph 24 on further guidance relating to clean development mechanism 2/CMP.5 requested for establishment of simplified modalities for demonstration of additionality. It is expected that such simplified modalities would reduce the multiple requirements for demonstration of additionality, reduce timelines for completion of validation and registration and increase regional distribution of projects. However, the rationale behind the proposed threshold of 5MW or less in scale for renewable energy and 20GWh or less annual saving potential for energy efficiency projects is not clear. We believe that additional effort in elaborating the existing simplified guidelines will benefit all small scale projects less than 15 MW and 60 GWh, as well as 60 KT. Since these types of projects are the most common in Least Developed Countries and other poor countries, such an effort would also contribute to addressing the concerns on geographical distribution of CDM activities.

This submission, while focusing on the proposed new thresholds, is structured more broadly to allow assessment of additionality for all small-scale category (SSC) projects. To ensure success of CDM, improved regional distribution of projects and reduction in the time-lines of project approval procedures, cost effective implementation of the simplified modalities for all small scale projects needs to be assured. This involves close consideration and analysis of key issues related to types of projects, technologies and region/country specific circumstances. As delays in the registration process translate into lost CERs, further simplification of existing modalities for additionality demonstration will benefit both the developing countries and the developed countries seeking cost-effective climate mitigation.

<sup>&</sup>lt;sup>1</sup> Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities

The following two sections recommend a flow-chart based, yes/no assessment, that small-projects can use to prove automatic additionality. The suggested assessment is based on widely published documentation (e.g., UN MDG reports, IFC Doing Business reports, WB's green data book, and published national/regional/sectoral data) or country specific or sector specific national-level information available in the host country. The effort is to move away from project-specific assessment for this category of projects as it is practically not possible to find information at such small scale and the associated time and cost involved can easily outweigh the financial incentive provided by the carbon revenue, which should be utilized for the project and not solely towards CDM transaction costs. The flow chart outlined is intended to simplify the procedures for demonstration of additionality of small scale renewable energy projects and programs.

## 1. Demonstration of Additionality for Small Scale Renewable Energy Project activities with less than 5 MW



<sup>&</sup>lt;sup>1</sup> Simple cost analysis is to prove that the type/technology of the project is costlier than the BAU, say \$/MW is higher than BAU or demonstrate that benefits to costs ratio is less than BAU based on the total costs and benefits expressed in discounted present values. This is without need to follow regular detailed investment analysis.

The check points on the flow chart are selected based on the analysis of additionality criteria that are based on the analysis of registered small scale renewable energy CDM projects and lessons learned from the WB's portfolio of projects. A project or program can be considered automatically additional if it is:

- 1. An off grid project; irrespective of its location and environment under which it has been implemented This is considering the fact that the size of the project is small and directly contribute to sustainable development perspective (A)
- 2. An on grid project and located in LDC (B)
- 3. An on grid project, located in countries other than LDCs, but
  - a. without any incentives from the government (C)
  - b. Located in areas with (X economic indicator or Y type of consumer, or Z share of poor communities? (D)

The following table explains the rationale behind various checkpoints suggested in the above flow chart:

Table 1: Explanation of additionality check-point for EE projects

Checkpoint	Rationale	Data Sources
A. If the project is an off-grid one?	Considering its small size and sustainable development priorities, any off grid project with less than 5 MW capacities should be considered automatically additional irrespective of its country of location	- No further data is required.
B. Is on-grid project located in LDC?	Considering its size, sustainable development benefits and obvious barriers exist in LDC countries, any grid connected project with less than or equal to 5 MW should be considered automatically additional. This is also considering CMP.5 declaration on LDCs to push the additionality of REs.	- No further data is required.
C. If the on-grid project is not located in LDC. There are limited or no direct incentives from the government for the promotion of project	Projects of this scale highly depend on incentives from the government mainly to reduce high upfront costs (considering their scale, location, choice of technology) and hence any such	- Any publicly available information on the government policies in the country

type/technology	project with limited or no	
typerteermology	government support should be	
	automatically additional.	
D If the commissions		
D. If the on-grid project	These types of projects help for	Last available published
is located in countries	the sustainable development of	data on economic and
other than LDC, in an	areas with economically poor	welfare indicators such
area where the	population or areas that lack	as:
population is either	basic infrastructure to meet	- Millennium
poor and/or lacks	basic needs. Projects that	development goals, such
access to infrastructure	contribute essentially for the	as
to meet their basic	sustainable development of the	Target 1.1: Proportion
needs or;	area should be encouraged and	of population below \$1
(based on a specific	considered additional.	per day
indicator)		Target 7.8: Proportion
		of population using an
		improved drinking
		water source
		Target 7.9: Proportion
		of population using an
		improved sanitation
		facility
		Target 7.10 Proportion
		of urban population
		• •
		living in slums
		Others
		- Economic and
		financial indicators
		such as
		Rate of electrification
		Others

## Note on indicators

The list of indicators is provided for discussion and illustration. It is proposed that all projects of this scale should considered automatically additional till the relevant MDG goals are achieved or there is significant improvement in the other economic indicators in the division/province/state/country in which the specified project is being implemented.

#### Illustrative examples

There are numerous projects across the world where the development dividend is larger as compared to the climate mitigation benefit but which can provide the much needed performance-linked incentive for communities to pursue a low-carbon path for development. Based on the check-points A-D described in Table 1, here we provide examples of projects that can be used to demonstrate the additionality using the checkpoints described are presented below (Source: UNFCCC website).

#### A. CDM solar cooker project Aceh 1, Indonesia (0218)

The project strives to transfer and spread most advanced technologies of solar cookers and of heat retaining containers (to finish cooking by unattended simmering and to separate meal-time and cooking time). The transferred state of the art technology from Germany uses renewable resources for cooking meals, heating and sterilizing water and preserving food.

#### B. LUIGA Hydropower Project in Mufindi District, Tanzania (under validation)

LUIGA hydro power project is a 3 MW project located in Mufindi district of Tanzania with a main objective of developing the rural energy sector in order to make a significant contribution to bringing about rural transformation and poverty alleviation. Although the government considers electricity as an important source of modern energy, less than 10% of the total population has access to electricity supply with rural access being lower than urban access. Estimates show that less than 2% of the population has access to electricity, despite this issue being a subject of both international and national concern in the country.

#### C. Yeghegis small-scale hydro project (1332)

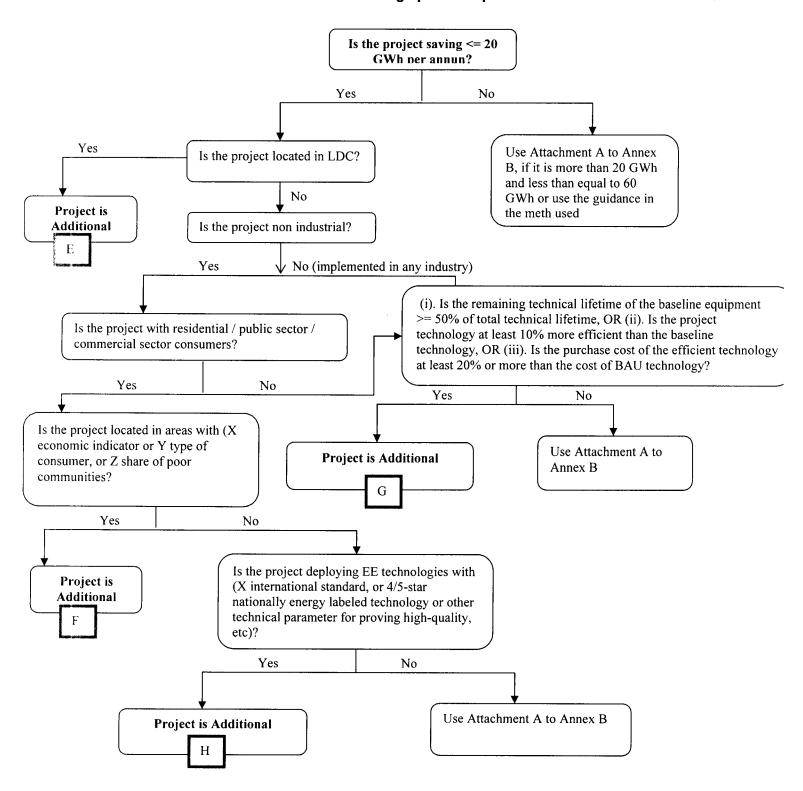
This project involves installation of a turbine of 3.75 MW (3,750 KW) at the small scale hydropower plant on the upper flow of the Yeghegis river with electricity supplied to the national grid of Armenia. A first turbine at Yeghegis was installed and operational and not a part of the CDM project. The second turbine could not have been financed without the CDM projects because this turbine will only operate during a wet season of approximately two and a half months. The first turbine produces about 25,000 MWh, while the second one will produce about 7296 MWh. There is no government incentive program to support such project.

### D. West Nile Electrification Project (0775)

The project is installation and operation of a 3.5 MW hydroelectric power plant along with upgradation and extension of existing distribution networks in Paidha, Nebbi and Arua municipalities in Uganda as well as connects existing and new customers, who would otherwise operate small, privately-owned generation facilities. The overall objectives of

the West Nile Electrification Project (WNEP) are to promote socio-economic development in *rural Uganda* and to reduce energy-related CO2 emissions causing global climate change. The project is being implemented under Energy for Rural Transformation (ERT) program mainly to assist Uganda's rural energy sector in contributing to rural transformation and poverty alleviation

# 2. Demonstration of Additionality for Small Scale Energy Efficiency Project activities with less than 20 GWh savings potential per annum



The check points on the flow chart are selected based on the analysis of the additionality demonstration criterion used by most of small scale energy efficiency project activities and taking into account the analysis of already registered projects and lessons learned from the WB's portfolio of projects. A project can be considered automatically additional if it is:

- 1. Located in LDC (E) or;
- 2. For non industrial projects
  - a. Located in areas with (X economic indicator or Y type of consumer, or Z share of poor communities? (F)
  - b. deploying EE technologies with (X international standard, or 4 / 5-star energy labeled technology etc) (H)
- 3. For industrial projects:
  - (i). Is the remaining technical lifetime of the baseline equipment >= 50%, OR
  - (ii). Is the project technology at least 10% more efficient than the baseline technology, OR
  - (iii). Is the purchase cost of the efficient technology at least 20% or more than the cost of BAU technology? (G)

The following table explains the rationale behind various checkpoints suggested in the above flow chart:

Table 2: Explanation of additionality check-point for EE projects

Checkpoint	Rationale	Data Sources
E. Located in LDC	Considering its size, sustainable development benefits and obvious barriers exist in LDC countries, any EE project with less than or equal to 20 GWh saving potential should be considered automatically additional.	- Do further data is required
F. Located in area where the beneficiaries are either poor and/or lacks access to infrastructure to meet their basic needs (based on relevant indicator)	These types of projects support sustainable development of areas with poor communities or areas that lack infrastructure to meet basic needs should be considered additional.	- Latest available published data on the indicators suggested in table 1, check-point D
G. Any of the following:  1. Is the remaining technical lifetime of the	This is based on assessment of the project technology choice, where the baseline technology	- Country-level industry data or government data. Other market

#### F. Yemen Distribution Los Reduction Program (under validation)

The objective of the project is to improve the technical efficiency of the electricity distribution sector in the Republic of Yemen (LDC) covering all 18 regions. The areas covered under the project supply power to households. The project intends to improve the electricity supply conditions through improved infrastructure and reduced technical losses. The country faces the lowest access to electricity in the region, with about half of the total population having access to (including self-generation) electricity supplied mostly through aging equipment.

#### G. India-FaL-G Brick and Blocks Project No.1 (0707)

Burnt clay bricks are predominantly used as walling material by the construction sector in India, approximately 95% market share. The process of producing clay bricks involves consumption of fossil fuel and denudation of fertile topsoil. The project involves setting-up of 14 micro-enterprises for production of FaL-G bricks and blocks. This process does not involve sintering and thus completely eliminates the burning of fossil fuels contributing to the reduction of greenhouse gas emissions

#### H. Bangladesh CFL Program (under validation)

This program involves installation of compact fluorescent lamps systems in Bangladesh where there is no local capacity to manufacturing and supply high quality bulbs. This project targets mainly households both in rural and urban and uses very high quality lamps with a minimum of 10000 hours life time and with 0.8 PF, which are superior to any CFL programs implemented so far in other developing countries and LDCs. The market penetration ratio for these high quality lamps is less than 1% in the country. These kinds of programs face large transaction costs in proving additionality using investment and barrier analysis.