

	<p align="center"><b>CDM: Form for Submissions on Small Scale Methodologies and Procedures (version 03)</b>  <i>(To be used for presenting questions/proposals/amendments related to the simplified methodologies for small-scale CDM project activity categories)</i></p>
Name:	Institution: <u>Johnson Controls (India) Private Limited</u>
Affiliation <sup>1</sup> :	<input type="checkbox"/> DNA <input type="checkbox"/> DOE <input checked="" type="checkbox"/> PP <input type="checkbox"/> Stakeholder
Title/Subject (max. 200 characters):	Clarification on identification of baseline scenario and demonstration of additionality for chiller programme under methodology AMS-II.C. (Version 13, EB 48)
Purpose of the submission:	<input checked="" type="checkbox"/> Query on an approved SSC methodology or small scale procedures <sup>2</sup> (Fill in field 1. below) <input type="checkbox"/> Request for Revision of an approved SSC methodology (Fill in fields 2. and 3. below) <input type="checkbox"/> Proposal for a new SSC methodology (Fill in fields 4. and 5. below)
Approved SSC methodologies <sup>2</sup> to which your submission relates to, if applicable.	AMS-II.C. (Version 13, EB 48)
Contact Information (e-mail addresses to which the answers are to be delivered and phone contacts for possible dialogue on the submission).	<a href="mailto:sudhi.sinha@jci.com">sudhi.sinha@jci.com</a>
<b>Information for completing the form</b>	
Describe the questions related to the SSC Methodologies, Modalities and Procedures below. If the questions are related to a project under development or implementation, you may describe the context in which they arose.	
<p align="center"><b>Query on an approved SSC methodology or SSC procedures</b></p>	
1. If you have questions relating to the application of an approved small-scale methodology (AMS) please specify and provide reference to the exact technology/measure below. If you have questions related to procedures for SSC project activities please clarify below:	
<p><b><u>Determination of Baseline</u></b></p> <p>The proposed CDM project activity titled “Demand Side Management (DSM) for accelerating the diffusion of energy-efficient chiller technology” involves the installation of energy efficient chillers. The project activity claims CERs due to energy savings on account of installation of chillers more efficient than those installed in the baseline scenario. The methodology applied, AMS II.C. (Version 13, EB 48), requires an estimation of the power consumption of the devices (chillers) in the baseline scenario to compute the baseline emissions.</p> <p>In order to identify the energy consumption of the chillers in the baseline scenario, the project proponent has referred to the efficiency standards postulated by ASHRAE 90.1. The project proponent has referred to publication(s) to justify the selection of ASHRAE 90.1 efficiency norms as a conservative baseline scenario. These publications clearly indicate that the efficiency standards of chillers currently sold/ operated in India are below those prescribed by ASHRAE 90.1. The publications include:</p>	

<sup>1</sup> Designated National Authority (DNA); Designated Operational Entity (DOE); Project Participant (PP), and Stakeholder.

<sup>2</sup> The list of all approved small-scale methodologies (AMS) can be found at <http://cdm.unfccc.int> and go to CDM: small scale CDM methodologies.

1. A study report (for India) provided by The World Bank titled Chiller Energy Efficiency Project (CEEP). The report indicates a much lower value of chiller efficiency than the value as per ASHRAE 90.1 standard. A copy of the same has been provided.
2. The “Energy Conservation Building Code (ECBC)”, which provides minimum requirements for the energy-efficient design and construction of buildings, has also been referred to. The ECBC has been developed by the International Institute for Energy Conservation (IIEC) under contract with the United States Agency for International Development (USAID) as a part of the Energy Conservation and Commercialization (ECO). It is proposed that the code will be made mandatory in India in order to promote energy efficiency in buildings in India. The code explicitly mentions that the structures shall be required to comply with ASHRAE 90.1 standard for HVAC systems. Considering that the Government of India is looking to set a target for efficiency improvement in building by implementing the ASHRAE 90.1 standard in the future strongly indicates that the efficiency levels of the chillers currently sold/ operated in India are below those prescribed by ASHRAE 90.1 and that the Government would like to achieve ASHRAE 90.1 standard efficiency in the future. A copy of the same has been provided.
3. Additionally, relevant documentation from nodal agency corroborating the fact that the chillers being sold/ operated in the country operate at efficiency level lower than that prescribed by ASHRAE 90.1 can also be provided.

Considering these third party publications, it is evident that the efficiency of the chillers in the baseline scenario assumed by the project proponent (as per ASHRAE 90.1 standard) is higher than the efficiency of the chillers actually sold/ operated in the market and is therefore, conservative. Moreover, the project proponent has made a provision for revision of the baseline scenario of future CPAs, should the ASHRAE 90.1 standard be revised to account for technological advancements. The alternative option available to the project proponent for identifying the baseline scenario is to conduct a market survey to assess the efficiency of the chillers sold in the market. However, the wide range of consumer segmentation, the gamut of designs available (accounting for technical variations as per the customer’s requirement), individual requirements of consumers from the procured chiller make this exercise a very unreliable one. As the final decision by a consumer to buy a particular chiller is dependent on the specific requirement of the consumer, the efficiency levels of chillers bought by different customers within a consumer segment itself may also vary. This would make the results of such a market survey very unreliable and therefore, a market survey has not been conducted.

The project proponent would like to seek a clarification from the SSC-WG if the approach adopted for identification of the baseline scenario for the proposed CDM project is acceptable as per the requirements of AMS-II.C. (Version 13, EB 48).

#### **Demonstration of Additionality**

The project proponent has demonstrated additionality for the proposed CDM project activity using barrier analysis. However, the project proponent would like to refer to the explanation provided by the Meth Panel in its 30<sup>th</sup> meeting (12<sup>th</sup> – 16<sup>th</sup> November, 2007) regarding demonstration of additionality for projects falling under the scope of methodology AM 0070 (NM 0325). The explanation states that *“The procedure on the demonstration of additionality should be refined. Investments in the improvement of refrigerator models or the development of new models may have different motivations and may not only occur once at the start of the project activity but continuously throughout all crediting periods. However, the magnitude and type of these future investments may not be known at the start of the project activity. Similarly, the production of more efficient appliances may generate additional revenues (from sale at higher prices) which may be difficult to estimate ex-ante, given that it is not known which type of new models will be introduced during the crediting period. Therefore, other approaches to ensure additional emission reductions may be required for this type of project activity, in particular if the emission reductions claimed are not related to one particular change in the manufacture of refrigerator but relate to the whole fleet of refrigerators over 21 years. A way forward to ensure real and additional emission reductions could be to demonstrate that the project clearly goes beyond what is the common practice in the market, for example, by introducing an ambitious market benchmark for the energy efficiency of appliances.”*

The proposed chiller programme is also a Demand Side Management program similar to the projects covered under the scope of AM0070. As in the case of the referred to methodology, the investments in the improvement of existing chiller models or the development of new models may not occur at the start of a crediting period but will continue through a crediting period. Further, the magnitude and type of such investments may not be known at the start of a crediting period.

Therefore, to demonstrate additionality for the proposed programme, the project proponent shall demonstrate that the efficiency of the chillers being sold/ operated in the market is below than that prescribed by an appropriate baseline (ASHRAE 90.1 for the first CPA) and that the efficiency of the chillers sold under the programme is above the baseline. Based on the guidance provided in AM0070 (Version 03.1), the project can be deemed additional under this situation.

The project proponent would like to seek a clarification from the SSC-WG if the additionality criteria as per AM0070 (Version 03.1) can be applied for demonstrating additionality of the proposed CDM project activity.

### Request for revision of an approved SSC methodology

2. If you are proposing an amendment/revision to an approved small-scale methodology (AMS), please provide justifications below:

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Not Applicable

3. If you are proposing an amendment/revision to an approved small-scale methodology (AMS) please provide the draft methodology with changes highlighted.

The following documents have been attached to this form:

- ☐ Draft methodology with changes highlighted in Word and PDF formats
- ☐ PDD in PDF format (optional)
- ☐ Additional information (please specify if you are providing any information note, published paper or a report in support of the request for revision of the SSC methodology)

Not Applicable

### Proposal for a new SSC methodology

4. If you are proposing a new small scale methodology, please provide justifications below:

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Not Applicable

5. For submitting a new small scale methodology a filled in form “CDM: form for proposed new small scale methodologies (F-CDM-SSC-NM)” is required.

The following documents have been attached to this form:

- ☐ Completely filled in form “CDM: form for proposed new small scale methodologies (F-CDM-SSC-NM)” in Word and PDF formats<sup>3</sup>
- ☐ A draft PDD (with sections A to C completed):
  - ☐ Relevant annexes to the PDD are provided
  - ☐ Additional information (please specify if you are providing any information note, published paper or a report in support of the new SSC methodology)

Not Applicable

Date you are delivering the contribution:

13/05/2011

### Information to be completed by the secretariat

SSC-Submission number

<sup>3</sup> The current version of the form (F-CDM-SSC-NM) is available on the UNFCCC CDM website (<http://cdm.unfccc.int>).