ARTICLE 6.4 MECHANISM

A6.4-MEP007-A02

Draft Standard

Addressing suppressed demand in mechanism methodologies

Version 02.1

United Nations
Framework Convention on
Climate Change

COVER NOTE

1. Procedural background

1. The Supervisory Body of the Article 6.4 mechanism at its tenth meeting, approved its workplan for 2024 and mandated the Methodological Expert Panel (MEP) to prepare recommendations for a tool on suppressed demand.

2. At its first meeting, the MEP initiated its work on the mandate and agreed to recommend to the Supervisory Body the development of a standard on suppressed demand. The Supervisory Body approved this recommendation at its eleventh meeting.

3. At its sixth meetings, the MEP continued its work and converged on key issues to address in developing the standard on suppressed demand.

2. Purpose

4. The purpose of the draft "Standard: Addressing suppressed demand in mechanism methodologies" is to set out the requirements for recognising suppressed demand in mechanism methodologies, with an aim to facilitate a consistent and appropriate consideration of approaches for addressing suppressed demand.

3. Key issues and proposed solutions

5. The key issues identified are as follows:

   (a) The potential risk of over-crediting from a suppressed demand baseline being set higher than the level of service for meeting basic human needs;

   (b) How quantitative thresholds should be derived for the types and levels of services which correspond to fulfilling basic human needs, and possible thresholds to be used for suppressed demand of energy consumption;

   (c) The need for periodic monitoring of conditions which result in suppressed demand;

   (d) The possibility of Article 6.4 activities providing a level of service in excess of the quantitative threshold corresponding to basic human needs and how to address it.

6. To address these issues, the MEP undertook the following:

   (a) The MEP reviewed the Clean Development Mechanism (CDM) guidelines on suppressed demand and analysed the CDM methodologies and registered CDM project activities recognising suppressed demand;

   (b) The MEP engaged with energy experts to gain an understanding from their research on suppressed demand;

   (c) The MEP examined perspectives of carbon market experts on over-crediting risks;

   (d) The MEP also reviewed the literature and ongoing international initiatives and frameworks that have developed multidimensional indicators covering basic

energy access, such as the multi-tier framework of the World Bank's Energy Sector Management Assistance Program[1] (ESMAP), International Energy Agency[2] (IEA), the United Nations Secretary General's Advisory Group on Energy and Climate Change[3] (AGECC), the concept of Decent Living Standards (DLS) included in the IPCC AR6 WG III Chapter 5, pages 505, 506, 513 and 522[4], and the Modern Energy Minimum[5] developed by the Energy for Growth Hub.

7. Based on this analysis, the MEP concluded that the standard should contain provisions and approaches on the following:

   (a) Definition of the conditions in which suppressed demand can be recognized;

   (b) Establishment of the threshold values for the level of service to meet basic human needs in mechanism methodologies incorporating suppressed demand and including thresholds for the total energy consumption under suppressed demand conditions for residential and non-residential cases;

   (c) Specification of which provisions in the "Standard Setting the baseline in mechanism methodologies" do not apply to suppressed demand baselines;

   (d) Laying out of further requirements for mechanism methodologies on how to incorporate suppressed demand into baseline setting.

4. Impact

8. The standard provides requirements and guidance that mechanism methodologies must fulfil when addressing suppressed demand. The standard will provide clarity that will enable the development and approval of mechanism methodologies and activities that take into account situations of suppressed demand.

5. Subsequent work and timelines

9. No further work is envisaged. The MEP opened a call for public/stakeholder input on the 3 June to the 23 June 2025. Nine inputs were received, these were considered and incorporated into the draft standard.

6. Recommendations to the Supervisory Body

10. The MEP recommends the Supervisory Body to consider and adopt the draft standard included in this document.

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1 https://www.esmap.org/sites/esmap.org/files/ESMAP-AFREA_Energy_HouseHold_Energy_Access_DP_23.pdf.

2 IEA World Energy Outlook, 2009 https://iea.blob.core.windows.net/assets/ac80b701-bdfc-48cf-ac4c-00e60e1246a0/weo2009.pdf.

3 Energy for Sustainable Development https://www.un.org/millenniumgoals/pdf/AGECCsummaryreport[1].pdf.

4 IPCC AR6 Chapter 5 Demand, Services and Social Aspects of Mitigation https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Chapter05.pdf.

5 Modern Energy Minimum https://energyforgrowth.org/wp-content/uploads/2019/01/FULL-Modern-Energy-Minimum-final-Jan2021.pdf.

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1. Introduction

1.1. Scope

1. This Standard sets out requirements for recognizing suppressed demand in mechanism methodologies. This Standard aims to facilitate a consistent and appropriate consideration of approaches for addressing suppressed demand. It provides requirements on how to identify the service level that fulfils basic human needs and identify the baseline technology and/or practice where suppressed demand exists, and the means to monitor whether suppressed demand conditions persist during the crediting period.

2. The Standard will be applied by the methodology proponents developing new mechanism methodologies or proposing revisions to existing ones, and by the UNFCCC Secretariat, the Methodological Expert Panel (MEP) and the Supervisory Body in assessing and considering proposed mechanism methodologies for approval. The standard is not intended for the preparation of project design documents (PDDs) or monitoring reports.

1.2. Entry into force

3. This document enters into force on DD Month YYYY.

2. Definitions

4. The following definitions shall apply:

(a) **Activity participant:** A public or private entity that participates in an Article 6.4 activity;

(b) **Basic human needs (BHN**): Physical and physiological needs considered essential for minimum quality of life, such as water, food, housing, sanitation (waste treatment/disposal, and wastewater treatment), access to energy services (including lighting, cooking, and thermal comforts including heating or cooling), mobility, communications and education, health and economic activities such as agriculture;

(c) **Business-as-usual (BAU):** Plausible reference benchmark or scenario for GHG emissions or removals prior to or in the absence of the implementation of the proposed Article 6.4 activity. It may be a scenario, emission or removal level, or an emissions or removals intensity;

(d) **Level of service for meeting basic human needs:** The threshold below which an individual is considered to face deprivation of BHN;

(e) **Suppressed demand:** A situation where services provided to a population are insufficient to meet the basic human needs due to barriers, such as low income or lack of infrastructure, and where the growth of emissions resulting from meeting such needs requires special consideration in the assessment of Article 6.4 baseline scenarios;

(f) **Suppressed demand baseline:** A crediting baseline that is established for the provision of services that address basic human needs.

3. Applicability

5. The standard applies to mechanism methodologies and methodological tools. For simplicity, only the term mechanism methodology is used in this standard.

6. The standard applies to mechanism methodologies related to emission reductions. It does not apply to mechanism methodologies for activities involving removals[1].

7. Mechanism methodologies may recognise suppressed demand where:

   (a) Neither the existing conditions, nor those in the business-as-usual (BAU) scenario can realistically provide the level of service for meeting the basic human needs of a population; and

   (b) These conditions are likely to persist throughout the crediting period due to barriers such as low income, lack of capital, or inadequate infrastructure.

8. This standard applies to the following contexts:

   (a) The residential context, which may include the energy use for lighting, cooking, food preservation, communication, space heating and cooling; and safe water supply;

   (b) The non-residential context, which may include energy use by smallholder agriculture (e.g., milling, drying, cold storage); energy for health centres (e.g., lighting, cold storage, cooking, space heating and cooling); energy for schools (e.g., lighting, cooking, space heating and cooling, powering of teaching and learning devices);

   (c) Other areas, such as mobility, construction or waste management.

9. This standard provides specifications for the energy consumption to meet basic human needs for the residential and non-residential sector but does not yet provide specifications for other areas. Such specifications may be proposed in submissions of mechanism methodologies. Note that the standard also does not provide values for the level of service for meeting specific basic human needs in the residential and non-residential context.

10. This standard shall be used in conjunction with the “Standard Setting the baseline in mechanism methodologies” (hereinafter referred to as “Baseline Standard”). This present standard specifies which provisions in the Baseline Standard do not apply to suppressed demand baselines.

11. This standard is applicable for activities undertaken at the project level and may be amended in the future to cover methodologies addressing mitigation actions at other scales (e.g., programme-of-activities, policies, sectoral approaches).

[1] Stakeholders may identify the need to widen the applicability of this standard to activities involving removals, by presenting specific proposals for the application of suppressed demand in a removals activity in new proposed mechanism methodologies.

4. General principles and requirements

4.1. General principles

12. The principles in the Baseline Standard shall apply, with an exception to the principle of conservativeness which is defined as follows:

    (a) **Conservativeness**: In the context of suppressed demand, conservativeness is the use of data, parameters, assumptions, and methods, to ensure that neither the baseline emissions nor the level of service for meeting basic human needs are overestimated.

4.2. Requirements

13. When addressing suppressed demand, the mechanism methodology shall:

    (a) Specify which basic human need(s) it addresses and the metric and threshold to be used for such need(s);

    (b) Specify the type(s) of technology and/or practice that will provide the level of service for meeting basic human needs.

14. The total level of service required to meet basic human needs shall be applied consistently across countries, regardless of the technology and/or practice that a project activity uses to address those basic human needs.

5. Approaches for recognising suppressed demand

5.1. Determination of the underlying conditions for recognising suppressed demand

15. When addressing suppressed demand, the mechanism methodology shall require activity participants to demonstrate that the intended project beneficiaries are in suppressed demand conditions with respect to the identified basic human need(s) at the start of each crediting period and that these conditions are likely to persist throughout the crediting period;

16. Mechanism methodologies shall specify the characteristics and scale of the activity types and sectors that they cover for determining a suppressed demand baseline.

5.2. Identification of the level of service for meeting basic human needs

17. Mechanism methodologies shall define the specific context to which the methodology is applicable and the level of service for meeting basic human needs for which a suppressed demand baseline may be applied to calculate baseline emissions. This applies both when the technology and/or practices provided under the Article 6.4 activity cover one or more basic human need(s). However, the level of service for meeting basic human needs shall be established separately for each basic human need.

18. The thresholds for the level of service for meeting BHN are defined as:

    (a) For suppressed demand in residential energy consumption, the specific BHN values shall be derived, and appropriately justified, consistent with the following threshold values. For total energy consumption:

        (i) Total electricity consumption up to 250 kWh per person per year[2]; and

        (ii) For total useful energy delivered from fuel used for cooking and heating up to 2.1 Gigajoules (equivalent to 583 kWh) per person per year[3];

    (b) For suppressed demand in non-residential energy consumption, deemed relevant to meet BHN, as described in the definition of BHN, the relevant specific BHN values shall be derived, and appropriately justified, consistent with the following threshold value for total direct and indirect electricity consumption:

        (i) Electricity consumption up to 750 kWh per person per year[4].

19. Further globally applicable values for the level of service for meeting BHN for other areas may be developed in future revisions to this standard. These values may include the identification and recognition of indirect energy demand for services required to meet BHN in the residential or non-residential context.

20. Mechanism methodologies establishing suppressed demand baselines may use energy metrics and non-energy metrics to determine the level of service for meeting basic human needs. Where non-energy metrics are used, the metrics for the level of service for meeting the basic human needs proposed by proponents of mechanism methodologies shall be comparable to those in paragraphs 18(a) and 18(b) above.

21. For establishing the level of service for meeting a specific BHN, the following data sources may be used:

    (a) National or international peer-reviewed research[5];

    (b) Relevant studies and reports from multilateral organizations[6];

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2 As defined in the Modern Energy Minimum https://modernenergyminimum.org.

3 Adapted from the figure of 50kg-oil equivalent of modern fuel in Level 1 of energy access according to The Secretary -General's Advisory Group on Energy and Climate Change (AGECC), 2010, Energy for a Sustainable Future: Report and Recommendations https://www.undp.org/sites/g/files/zskgke326/files/publications/AGECCsummaryreport.pdf.

4 As defined in the Modern Energy Minimum https://modernenergyminimum.org.

5 For example, Table 2 of the following article can be used to estimate the proportions of specific needs from the value of total Decent Living Standards. The proportions from this source may be considered by methodology proponents in estimating the proportion of each specific need from the total BHN threshold: J. Millward-Hopkins, J. K. Steinberger, N. D. Rao, & Y. Oswald, Providing decent living with minimum energy: A global scenario, Global Environmental Change, Volume 65, 2020. https://doi.org/10.1016/j.gloenvcha.2020.102168.

6 For example, The World Health Organization recommendations on per capita safe drinking water volumes.

(c) Established benchmarks related to international and/or national development goals[7].

22. Further, for establishing the level of service for meeting a specific BHN, the following shall be taken into account:

(a) Climatic zones;

(b) Policy and regulations;

(c) Scale and proportionality to the metric for the total level of service for meeting BHN for the relevant context, where defined in this standard.

23. In some situations, it may be appropriate to apply two or more baseline technologies and/or practices and respective service levels to reflect the cumulative project service level.

24. The level of service for a specific BHN shall represent a reasonable fraction of the total level of service for meeting basic human needs for the relevant context, when it is defined in this standard. For example, a mechanism methodology for Article 6.4 activities that provide lighting services for households shall specify the limit for lighting based on a reasonable and justifiable distribution for different consumption percentages of the services in the relevant geographical area.

25. The sum of the individual thresholds for each service shall not exceed the threshold for the total level of service for meeting BHN for residential electric energy use, considering also other electric energy services required by the household to meet its basic human needs such as space cooling and heating, food preservation and communications. The same would apply for an Article 6.4 activity that provides combinations of services for households; in such instances, the mechanism methodology shall specify the threshold for each service separately that cumulatively meet the threshold for BHN. For example, a mechanism methodology for Article 6.4 activities that provide both lighting and cooling services for households shall specify the threshold for lighting and the threshold for cooling separately.

26. For any service provided through the implementation of the Article 6.4 activity beyond the level of service for meeting basic human needs, the following requirements shall apply:

(a) For the service provided by the Article 6.4 activity up to the threshold level of service for meeting basic human needs, the mechanism methodology shall require the determination of a baseline scenario and a baseline technology and/or practice for that service level in line with the requirements in section 5.3 of this standard. The mechanism methodology may use the suppressed demand baseline for the provision of service up to the threshold for meeting basic human needs;

(b) For the service provided by the Article 6.4 activity that is above the threshold level of service for meeting basic human needs**,** the mechanism methodology shall not determine a suppressed demand baseline, but a) solely use the provisions of the Baseline Standard to determine the baseline, or b) provide the option to activity

[7] For example, the DLS framework, IPCC AR6 Chapter 5 Demand, Services and Social Aspects of Mitigation, pages 505, 506, 513- 522: https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Chapter05.pdf.

participants that no baseline emissions for the services exceeding the threshold are considered.

27. During the crediting period, if the baseline for the service exceeding the threshold has not been determined ex-ante in the PDD of the Article 6.4 activity, and the level of service provided by the Article 6.4 activity temporarily exceeds the threshold level of service for meeting BHN, then no baseline emissions for service levels exceeding the threshold level of service shall be considered.

5.3. Identification of the suppressed demand baseline technology and/or practice

28. Mechanism methodologies shall use the provisions in the Baseline Standard to determine the baseline scenario and the baseline technology and/or practice for the suppressed demand baseline, subject to the following requirements:

    (a) Rather than a service level that reflects existing conditions or a BAU scenario, the baseline shall be determined for the lower of:

        (i) The level of service for meeting BHN; or

        (ii) The level of service delivered by the mitigation activity;

    (b) The identified baseline technology and/or practice shall be able to realistically provide the level of service referred to in sub-paragraph (a)(i) above;

    (c) When applying the existing actual or historical emissions approach, the approach is not required to utilize site-specific historical data but may instead use another method that reflects the actual or historical emissions of the baseline technology or practice;

    (d) The suppressed demand baseline may be based on a technology and/or practice that can be demonstrated through studies, documents, or third-party records, but is not well documented in official records or data[8], whereby the supporting evidence for the baseline may not comply entirely with the *Data requirements for baseline setting and quantification* in the Baseline Standard. The types of alternate studies, documents, or third-party records permissible as evidence shall be specified in the mechanism methodology;

    (e) The downward adjusted baseline resulting from Step 3 of the Baseline Standard may be used as the crediting baseline. The determination of a conservative BAU baseline, as per Step 3 and section 7 of the Baseline Standard, is not necessary and the downward adjusted baseline does not need to undergo a comparison with BAU or fulfil the requirement of being below BAU;

    (f) The downward adjustment in subsequent years, as referred to in Section 7.2 of the Baseline Standard, may correspond to the minimum value of 1%;

    (g) There is no need for consideration of rebound effects, as referred to Appendix 1 to the Baseline Standard.

29. The suppressed demand baseline shall be re-evaluated and updated at the renewal of the crediting period to ensure it is based on the current situation.

[8] For example, diesel gensets in a context where these are widely used by individuals but not tracked or reported reliably by the national government.

5.4. Monitoring of suppressed demand conditions

30. Mechanism methodologies shall include requirements for activity participants to monitor and reassess whether ongoing conditions continue, to indicate that suppressed demand would persist in the absence of the Article 6.4 activity, using one or more indicators as described in sub-paragraph (a) below. The mechanism methodology shall specify the indicator(s) and threshold(s) to be used by activity participants to monitor and reassess ongoing suppressed demand conditions, as follows:

    (a) Indicators may be parameters such as average household income, distance to electrical substations, grid reliability, distance to water treatment plants in compliance with potability standards, or others relevant for the BHN being addressed and the conditions of the project population prior to the project activity;

    (b) The monitoring to assess ongoing suppressed demand conditions shall exclude the direct impact of the Article 6.4 activity on the conditions of the project population.

31. The reassessment of ongoing suppressed demand conditions shall be undertaken at least every five years, e.g. at the renewal of the crediting period.

32. If the ongoing conditions of an activity are found to exceed the threshold defined as meeting suppressed demand, then that location is deemed ineligible for the baseline for which suppressed demand is recognized, and a new baseline may be proposed following an approved methodology via the post-registration changes procedure, as referred to in the “Procedure: Article 6.4 activity cycle procedure for projects”.

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Document information

Version	*Date*	*Description*
02.1	24 July 2025	Editorial correction in the cover note.
02.0	14 July 2025	MEP 007, Annex 2. To be considered by the Supervisory Body at SBM 017. This version takes into account the inputs received in response to the call for input on this draft document.
01.0	2 June 2025	MEP 006, Annex 1. A call for input on this document will be issued following the conclusion of meeting MEP 006. The input received will be considered by the MEP for the further development of this document at MEP 007. If no input is received, this document will be considered by the SBM at its next meeting.

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