



Gold Standard
for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROGRAMME DESIGN DOCUMENT (POA-DD)

PUBLICATION DATE **14.10.2020**

VERSION **v. 1.1**

RELATED DOCUMENTS

- **TEMPLATE GUIDE Key Project Information & PoA Design Document v.1.1**

This document contains the following Sections

Key Project Information

Section A – General description of PoA

SECTION B - Management System and Inclusion Criteria

SECTION C – Demonstration of additionality

SECTION D – Duration of PoA

SECTION E – Safeguarding principles assessment

SECTION F - Outcome of Stakeholder Consultations

0 – Contact information of coordinating/managing entity and responsible person(s)/
entity(ies)

Gold Standard

Climate Security and Sustainable Development

KEY PROJECT INFORMATION

GS ID of Programme	GS1239
Title of Programme:	Sichuan Rural Poor-Household Biogas Development Programme
Start Date of POA	10/05/2012
Date of Design Certification	22/04/2012
POA Period Start Date	11/04/2012
Version number of the PoA-DD	3.4
Completion date of the PoA-DD	22/01/2021
Coordinating/managing entity	Chengdu Oasis Science & Technology Co., Ltd
Project Participants and any communities involved	Chengdu Oasis Science & Technology Co., Ltd UPM Umwelt-Projekt-Management GmbH
Host Country (ies)	People's Republic of China
Activity Requirements applied	<input checked="" type="checkbox"/> Community Services Activities <input type="checkbox"/> Renewable Energy Activities <input type="checkbox"/> Land Use and Forestry Activities/Risks & Capacities <input type="checkbox"/> N/A
Other Requirements applied	N/A
Methodology (ies) applied and version number	AMS-I.I.– Biogas/biomass thermal applications for households/small users (version 04) (EB68, Annex 25); AMS-III.R.– Methane recovery in agricultural activities at household/small farm level (version 03) (EB69, Annex 23)
Product Requirements applied	<input type="checkbox"/> GHG Emissions Reduction & Sequestration <input type="checkbox"/> Renewable Energy Label

Deleted: 3

Deleted: 30

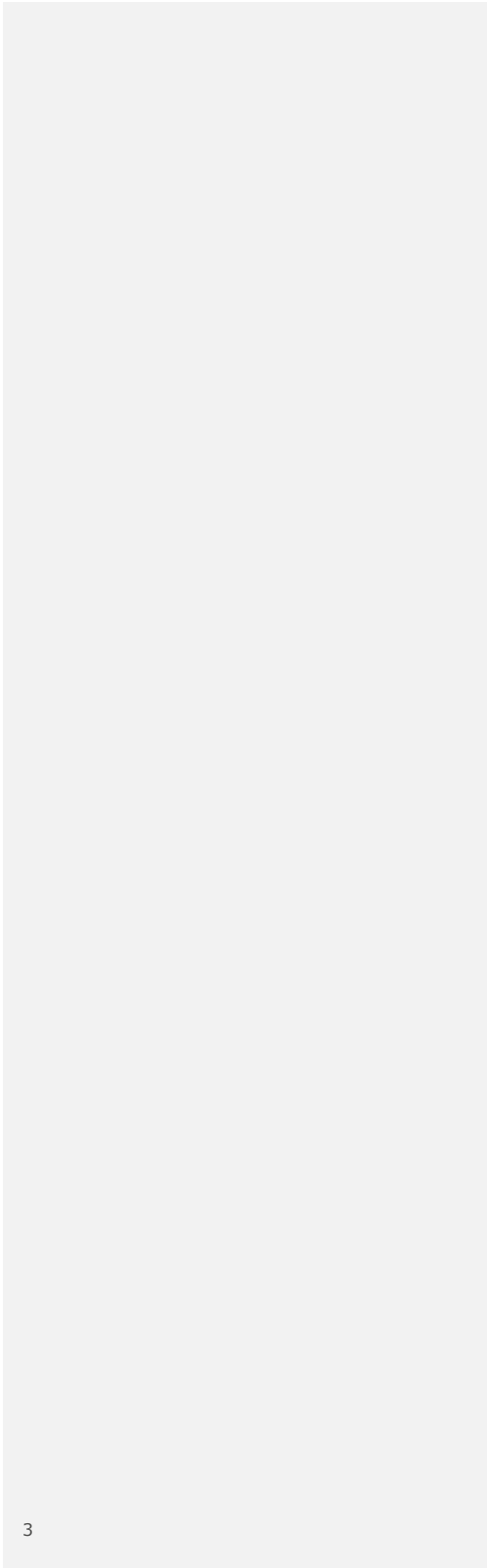
Deleted: 1

Deleted: 0

Deleted:

Deleted:

 N/A



SECTION A. General description of PoA

A.1. Purpose and general description of the PoA

1. General operating and implementing framework of PoA

The Sichuan Rural Poor-Household Biogas Development Programme (hereafter referred to as “The proposed PoA”) aims to reduce a large amount of greenhouse gases (GHG) by facilitating the installation of a large number of household biogas digesters. To achieve this target, the proposed PoA will generate additional incentives to install digesters to households that are supported by existing subsidy schemes. Target group of the proposed PoA are low-income households located in Sichuan Province, China. The primarily targeted areas are thirteen cities (however, the PoA shall not be limited to this thirteen cities exclusively): Yibin, Neijiang, Suining, Ziyang, Zigong, Ruzhou, Leshan, Meishan, Mianyang, Guang’An, Ganzi, Aba and Dazhou, all of which are located in Sichuan.

Currently, households in the area of the proposed PoA store animal manure produced by micro-scale animal husbandries in deep pits for several months before applying it to their farmland. In the meantime, coal is used as source of energy for cooking in daily life. During the project activity, each household is equipped with a household biogas digester that will treat the manure anaerobically and recover the generated methane. After installation of the biogas systems, both sources of emissions will be reduced: No methane is emitted from the existing manure management systems, as the manure will be treated within the biogas digesters and furthermore, all recovered methane will be utilized for cooking to reduce the coal consumption of each household.

To support local households, the Sichuan Rural Energy Office implements the existing governmental subsidy schemes by providing a financial support during the construction of the biogas digesters. Target of the subsidy schemes is to reduce methane emissions from the pits, generate biogas as renewable source of energy and use the digester effluent as high-efficient fertilizer. However, after reaching mid-and high-income families, the Sichuan Rural Energy Office came to the conclusion, that low-income families still face barriers and cannot participate in the digester installation programme. Therefore, these households need further promotion to participate in the existing programmes and install a biogas digester.

Furthermore, technical difficulties that occur during the operation of household biogas digesters resulted in a low rate of successful long-term operation among the digesters that have been installed in the past. A fundamental reason is that technical support and maintenance of the digesters and related equipment are not covered by the subsidy schemes. Individual technical support for households is expensive and difficult to obtain in remote areas. Therefore, the acceptance of the technology and the willingness to pay for the instalment of bio digesters without guaranteed, regular and proper maintenance is very low.

The proposed PoA is managed, implemented, operated and monitored by the Coordinating Entity (C/ME) Chengdu Oasis Science & Technology Co., Ltd. The C/ME takes care of all CDM related tasks. This includes the writing of all related documents, quantitative calculation of emission reductions, the management of CDM related procedures like validation, registration and verification, and the allocation of CER revenues for the distribution to the farmers and the technical service network.

Deleted: will be

Deleted: will

The technical implementation of the digesters, the operation of the service network, as well as all necessary surveys and monitoring will be undertaken by the Sichuan Rural Energy Office and their subsidiaries, the city, county and village level Rural Energy Offices. After the CER revenue has been provided by the C/ME, the Sichuan Rural Energy Office also ensures the distribution of the revenues to the individual households and the service network.

Each CPA under the proposed PoA has two CPA implementers:

Deleted: will have

- Chengdu Oasis Science & Technology Co., Ltd. (also acting as the C/ME)
- The Sichuan Rural Energy Office

2. Policy measure or stated goal of the PoA

Stated goal of the proposed PoA is to enable the poor population of the rural areas in Sichuan to participate in the existing biogas subsidy programme provided by the Sichuan Rural Energy Office. The approach adopted to achieve this is twofold:

- Financial support:** Although the existing subsidies promote the installation of household biogas digesters, the investment is not financially feasible. By offering an additional regular income generated by carbon credits, the PoA will support the households in closing the financial gap.
- Technical support:** The proposed PoA provides free technical service during start up and operation of the digesters. By this means low-income households, who much more than richer households cannot afford to allocate scarce financial resources in a sensitive technology, are guaranteed that they actually receive long-term benefits of their investment in the biogas systems. Thereby, not only the barrier for the initial installation of the digesters is overcome, but also the stability of the digester operation is improved after the equipment has been installed.

Deleted: will

Deleted: will

Expected outcome of the proposed programme is an increased distribution of digesters on the one side and a more reliable operation of the installed systems on the other side. Both effects will contribute to the success of the existing subsidy programme and increase the achieved emission reductions.

As stated and explained above, the target group of the proposed PoA are low-income families. By focusing on these groups, the PoA clearly facilitates additional and sustainable development and will improve the living conditions of underprivileged farmers.

3. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity

Currently, there is no mandatory policy or regulation requiring the installation of household biogas technology by rural farmers. The Coordinating Entity aims to set up the PoA as a voluntary action and plans all measures needed to increase the acceptance of the existing subsidy programme additionally and beyond the said system. All households included participate voluntarily and would face severe barriers without the proposed PoA.

Furthermore, the installation of biogas digesters under existing subsidy schemes that are currently implemented by the Sichuan Rural Energy Office and that will be further promoted by the proposed programme is a voluntary action as well. In the existing structures, the households receive a financial support for the construction of digesters. However, the farmers make the investment decision on a voluntary basis. No existing subsidy, law or regulation does give a provincial mandatory target number of constructed biogas digesters that has to be reached by the provincial government or imply any mandatory obligation for the farmers to install the systems.

4. Positive effects of the proposed PoA beyond reducing GHG emissions

As the most obvious and measurable effect, the proposed programme results in a reduction of carbon emissions. Until now, 87 CPAs have been included in the POA successfully, and the POA has got several issuances of GS CERs during the 1st crediting period of the PoA (11/04/2012-10/04/2019), see the link:

Deleted: will

Formatted: Superscript

https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/5BGM96VOK3ATN4JPR70XSWIQ8CZH2F/view?cp=1

See following key events of the PoA:

<u>Date</u>	<u>Event</u>
<u>11/04/2012</u>	<u>CDM registration, incl. CPA 001</u>
<u>22/04/2012</u>	<u>GS registration, incl. CPA 001</u>
<u>11/04/2013</u>	<u>CPA 002-053 inclusions under CDM</u>
<u>15/08/2013</u>	<u>CPA 002-053 inclusions under GS</u>
<u>03/01/2014</u>	<u>CERs issuances for the 1st monitoring period (10/05/2012 – 05/06/2013), 1,411 CERs issued CP1 and 78,422 CERs issued CP2</u>
<u>24/03/2014</u>	<u>CPA 054-073 inclusions under CDM</u>
<u>18/04/2014</u>	<u>CPA 054-073 inclusions under GS</u>
<u>17/10/2014</u>	<u>CERs issuances for the 2nd monitoring period (06/06/2013 – 28/02/2014), 389,006 CERs issued CP2</u>
<u>29/01/2015</u>	<u>CPA 074-087 inclusions under CDM</u>
<u>19/03/2015</u>	<u>CPA 074-087 inclusions under GS</u>
<u>22/04/2016</u>	<u>CERs issuances for the 3rd monitoring period (01/03/2014 – 31/12/2014), 613,252 CERs issued CP2</u>
<u>11/12/2017</u>	<u>This PoA voluntary changes AMS-I.C. (version 19) to AMS-I.I. (version 04). Such post-registration change (PRC ref no: PRC-2898-001) has been approved by EB on 11/12/2017.</u>
<u>01/2018</u>	<u>GS4GG transition approval</u>
<u>10/04/2018</u>	<u>CERs issuances for the 4th monitoring period (01/01/2015 – 31/12/2015), 748,503 CERs issued CP2</u>
<u>29/01/2019</u>	<u>CERs issuances for the 6th monitoring period (01/01/2017 – 31/12/2017), 829,252 CERs issued CP2</u>
<u>17/04/2019</u>	<u>Approval on POA renewal under CDM</u>
<u>31/10/2019</u>	<u>CERs issuances for the 5th monitoring period (01/01/2016 – 31/12/2016), 816,778 CERs issued CP2</u>
<u>15/01/2020</u>	<u>CERs issuances for the 7th monitoring period (01/01/2018 – 31/12/2018), 822,520 CERs issued CP2</u>
<u>13/02/2020</u>	<u>GS labelling on issued CERs (7th monitoring period) completion</u>

Deleted: The first CPA (SN: SCHHBG-2010-001) that will be registered with this PoA, is estimated to result in an annual emission reduction of 2,282 tCO₂e and a total emission reduction of 22,820 tCO₂e in the entire 10-year crediting period.

Formatted: Font: Bold, Complex Script Font: Bold

Formatted: Centered

Formatted Table

Formatted: Superscript

Formatted: Superscript

Formatted: Superscript

Formatted: Superscript

The activities, i.e. digester installation and biogas utilization under the PoA started at different time and have different commissioning date accordingly, and during the PoA implementation, the CPAs has been included batch to batch, therefore the 87 CPAs have several different starting date of crediting period. The detailed information is showed in the table below.

CPA	City(ies)	Start of Construction of the first digester	Operation Date of the last digester	Crediting period of each CPA
GS1288: 2898-0001	Yibin	10/12/2010	20/02/2011	10/05/2012 - 09/05/2022
GS1693: 2898-0002	Yibin	28/10/2010	10/07/2012	11/04/2013 - 10/04/2023
GS1694: 2898-0003	Yibin	28/10/2010	28/07/2012	11/04/2013 - 10/04/2023
GS1695: 2898-0004	Yibin	28/10/2010	14/08/2012	11/04/2013 - 10/04/2023
GS1696: 2898-0005	Yibin	28/10/2010	15/08/2012	11/04/2013 - 10/04/2023
GS1697: 2898-0006	Yibin	28/10/2010	13/06/2012	11/04/2013 - 10/04/2023
GS1698: 2898-0007	Yibin	28/10/2010	30/12/2011	11/04/2013 - 10/04/2023
GS1699: 2898-0008	Yibin	28/10/2010	29/12/2011	11/04/2013 - 10/04/2023
GS1700: 2898-0009	Yibin	28/10/2010	03/06/2012	11/04/2013 - 10/04/2023
GS1701: 2898-0010	Yibin	29/10/2010	04/06/2012	11/04/2013 - 10/04/2023
GS1702: 2898-0011	Mianyang	28/10/2010	20/06/2012	11/04/2013 - 10/04/2023
GS1703: 2898-0012	Mianyang	28/10/2010	19/07/2012	11/04/2013 - 10/04/2023
GS1704: 2898-0013	Mianyang	28/10/2010	06/07/2012	11/04/2013 - 10/04/2023
GS1705: 2898-0014	Mianyang	28/10/2010	14/12/2012	11/04/2013 - 10/04/2023
GS1706: 2898-0015	Mianyang	28/10/2010	22/12/2012	11/04/2013 - 10/04/2023
GS1707: 2898-0016	Mianyang	28/10/2010	12/07/2012	11/04/2013 - 10/04/2023
GS1708: 2898-0017	Mianyang	01/11/2010	11/09/2011	11/04/2013 - 10/04/2023
GS1709: 2898-0018	Mianyang	29/10/2010	27/11/2011	11/04/2013 - 10/04/2023
GS1710: 2898-0019	Mianyang	30/10/2010	08/06/2012	11/04/2013 - 10/04/2023
GS1711: 2898-0020	Mianyang	29/10/2010	30/12/2011	11/04/2013 - 10/04/2023
GS1712: 2898-0021	Mianyang	29/10/2010	30/12/2011	11/04/2013 - 10/04/2023
GS1713: 2898-0022	Mianyang	29/10/2010	20/12/2011	11/04/2013 - 10/04/2023
GS1714: 2898-0023	Mianyang	28/10/2010	27/12/2012	11/04/2013 - 10/04/2023
GS1715: 2898-0024	Mianyang	28/10/2010	12/11/2012	11/04/2013 - 10/04/2023
GS1716: 2898-0025	Mianyang	30/10/2010	29/12/2011	11/04/2013 - 10/04/2023
GS1717: 2898-0026	Mianyang	29/11/2010	07/12/2011	11/04/2013 - 10/04/2023
GS1718: 2898-0027	Mianyang	23/11/2010	29/12/2011	11/04/2013 - 10/04/2023
GS1719: 2898-0028	Guang'an	01/11/2010	15/03/2012	11/04/2013 - 10/04/2023
GS1720: 2898-0029	Guang'an	28/10/2010	05/09/2012	11/04/2013 - 10/04/2023
GS1721: 2898-0030	Guang'an	28/10/2010	29/04/2012	11/04/2013 - 10/04/2023
GS1722: 2898-0031	Guang'an	29/10/2010	09/12/2012	11/04/2013 - 10/04/2023
GS1723: 2898-0032	Suining	29/10/2010	27/12/2011	11/04/2013 - 10/04/2023
GS1724: 2898-0033	Suining	28/10/2010	08/09/2012	11/04/2013 - 10/04/2023
GS1725: 2898-0034	Suining	29/10/2010	27/08/2012	11/04/2013 - 10/04/2023
GS1726: 2898-0035	Dazhou	28/10/2010	23/12/2012	11/04/2013 - 10/04/2023
GS1727: 2898-0036	Ziyang	29/10/2010	30/07/2012	11/04/2013 - 10/04/2023
GS1728: 2898-0037	Ziyang	28/10/2010	20/12/2012	11/04/2013 - 10/04/2023

- Formatted ... [1]
- Formatted ... [2]
- Formatted ... [4]
- Formatted ... [5]
- Formatted Table ... [3]
- Formatted ... [6]
- Formatted ... [7]
- Formatted ... [8]
- Formatted ... [9]
- Formatted ... [10]
- Formatted ... [11]
- Formatted ... [12]
- Formatted ... [13]
- Formatted ... [14]
- Formatted ... [15]
- Formatted ... [16]
- Formatted ... [17]
- Formatted ... [18]
- Formatted ... [19]
- Formatted ... [20]
- Formatted ... [21]
- Formatted ... [22]
- Formatted ... [23]
- Formatted ... [24]
- Formatted ... [25]
- Formatted ... [26]
- Formatted ... [27]
- Formatted ... [28]
- Formatted ... [29]
- Formatted ... [30]
- Formatted ... [31]
- Formatted ... [32]
- Formatted ... [33]
- Formatted ... [34]
- Formatted ... [35]
- Formatted ... [36]
- Formatted ... [37]
- Formatted ... [38]
- Formatted ... [39]
- Formatted ... [40]
- Formatted ... [41]
- Formatted ... [42]
- Formatted ... [43]
- Formatted ... [44]
- Formatted ... [45]
- Formatted ... [46]
- Formatted ... [47]
- Formatted ... [48]
- Formatted ... [49]
- Formatted ... [50]
- Formatted ... [51]
- Formatted ... [52]
- Formatted ... [53]
- Formatted ... [54]
- Formatted ... [55]
- Formatted ... [56]
- Formatted ... [57]
- Formatted ... [58]
- Formatted ... [59]
- Formatted ... [60]
- Formatted ... [61]

CPA	City(ies)	Start of Construction of the first digester	Operation Date of the last digester	Crediting period of each CPA
GS1730: 2898-0038	Ziyang	29/10/2010	18/12/2012	11/04/2013 - 10/04/2023
GS1731: 2898-0039	Ziyang	29/10/2010	30/12/2012	11/04/2013 - 10/04/2023
GS1732: 2898-0040	Ziyang	01/11/2010	24/09/2011	11/04/2013 - 10/04/2023
GS1733: 2898-0041	Ziyang	29/10/2010	08/12/2011	11/04/2013 - 10/04/2023
GS1734: 2898-0042	Meishan	02/11/2010	30/07/2012	11/04/2013 - 10/04/2023
GS1735: 2898-0043	Meishan	10/11/2010	03/07/2012	11/04/2013 - 10/04/2023
GS1736: 2898-0044	Meishan	28/10/2010	30/08/2012	11/04/2013 - 10/04/2023
GS1737: 2898-0045	Meishan	29/10/2010	30/08/2012	11/04/2013 - 10/04/2023
GS1738: 2898-0046	Neijiang	29/10/2010	10/12/2012	11/04/2013 - 10/04/2023
GS1739: 2898-0047	Leshan	28/10/2010	18/02/2012	11/04/2013 - 10/04/2023
GS1740: 2898-0048	Leshan	28/10/2010	29/08/2012	11/04/2013 - 10/04/2023
GS1741: 2898-0049	Zigong	28/10/2010	31/08/2012	11/04/2013 - 10/04/2023
GS1742: 2898-0050	Luzhou	29/10/2010	30/06/2012	11/04/2013 - 10/04/2023
GS1743: 2898-0051	Luzhou	29/10/2010	14/08/2012	11/04/2013 - 10/04/2023
GS1744: 2898-0052	Dazhou, Aba	29/10/2010	27/07/2012	11/04/2013 - 10/04/2023
GS1745: 2898-0053	Guang'an, Dazhou, Leshan	28/10/2010	31/01/2012	11/04/2013 - 10/04/2023
GS2566: 2898-0054	Luzhou	01/11/2010	20/12/2012	24/03/2014 - 23/03/2024
GS2567: 2898-0055	Mianyang	02/11/2010	21/08/2012	24/03/2014 - 23/03/2024
GS2568: 2898-0056	Mianyang	22/11/2010	30/09/2012	24/03/2014 - 23/03/2024
GS2569: 2898-0057	Mianyang	29/10/2010	08/12/2012	24/03/2014 - 23/03/2024
GS2570: 2898-0058	Mianyang	29/10/2010	25/09/2012	24/03/2014 - 23/03/2024
GS2571: 2898-0059	Mianyang	02/11/2010	30/08/2012	24/03/2014 - 23/03/2024
GS2572: 2898-0060	Mianyang	05/11/2010	25/09/2012	24/03/2014 - 23/03/2024
GS2573: 2898-0061	Mianyang	02/11/2010	25/09/2012	24/03/2014 - 23/03/2024
GS2574: 2898-0062	Mianyang	29/10/2010	30/09/2012	24/03/2014 - 23/03/2024
GS2575: 2898-0063	Suining	30/10/2010	19/11/2012	24/03/2014 - 23/03/2024
GS2576: 2898-0064	Neijiang	28/10/2010	25/11/2012	24/03/2014 - 23/03/2024
GS2577: 2898-0065	Leshan	29/10/2010	15/01/2013	24/03/2014 - 23/03/2024
GS2578: 2898-0066	Yibin	19/05/2011	15/06/2013	24/03/2014 - 23/03/2024
GS2579: 2898-0067	Guang'an	01/10/2011	20/04/2013	24/03/2014 - 23/03/2024
GS2580: 2898-0068	Guangan, Dazhou, Meishan, Leshan, Luzhou, Aba and Ganzi	29/10/2010	06/05/2013	24/03/2014 - 23/03/2024
GS2581: 2898-0069	Mianyang and Meishan	29/10/2010	23/06/2013	24/03/2014 - 23/03/2024
GS2582: 2898-0070	Mianyang and Neijiang	21/02/2012	30/11/2012	24/03/2014 - 23/03/2024

- Formatted ... [80]
- Formatted ... [81]
- Formatted ... [83]
- Formatted ... [84]
- Formatted Table ... [82]
- Formatted ... [85]
- Formatted ... [86]
- Formatted ... [87]
- Formatted ... [88]
- Formatted ... [89]
- Formatted ... [90]
- Formatted ... [91]
- Formatted ... [92]
- Formatted ... [93]
- Formatted ... [94]
- Formatted ... [95]
- Formatted ... [96]
- Formatted ... [97]
- Formatted ... [98]
- Formatted ... [99]
- Formatted ... [100]
- Formatted ... [101]
- Formatted ... [102]
- Formatted ... [103]
- Formatted ... [104]
- Formatted ... [105]
- Formatted ... [106]
- Formatted ... [107]
- Formatted ... [108]
- Formatted ... [109]
- Formatted ... [110]
- Formatted ... [111]
- Formatted ... [112]
- Formatted ... [113]
- Formatted ... [114]
- Formatted ... [115]
- Formatted ... [116]
- Formatted ... [117]
- Formatted ... [118]
- Formatted ... [119]
- Formatted ... [120]
- Formatted ... [121]
- Formatted ... [122]
- Formatted ... [123]
- Formatted ... [124]
- Formatted ... [125]
- Formatted ... [126]
- Formatted ... [127]
- Formatted ... [128]
- Formatted ... [129]
- Formatted ... [130]
- Formatted ... [131]
- Formatted ... [132]
- Formatted ... [133]
- Formatted ... [134]
- Formatted ... [135]
- Formatted ... [136]
- Formatted ... [137]
- Formatted ... [138]
- Formatted ... [139]
- Formatted ... [140]

CPA	City(ies)	Start of Construction of the first digester	Operation Date of the last digester	Crediting period of each CPA
GS2583: 2898-0071	Yibin, Suining and Neijiang	29/10/2010	15/12/2012	24/03/2014 - 23/03/2024
GS2584: 2898-0072	Yibin and Ziyang	29/10/2010	22/12/2012	24/03/2014 - 23/03/2024
GS2585: 2898-0073	Ziyang and Zigong	29/10/2010	05/03/2013	24/03/2014 - 23/03/2024
GS3588: 2898-0074	Yibin	29/10/2010	04/01/2013	01/02/2015 - 31/01/2025
GS3589: 2898-0075	Mianyang	27/07/2011	21/01/2014	01/02/2015 - 31/01/2025
GS3590: 2898-0076	Dazhou	01/11/2010	17/05/2014	01/02/2015 - 31/01/2025
GS3591: 2898-0077	Ziyang	03/10/2011	05/11/2013	01/02/2015 - 31/01/2025
GS3592: 2898-0078	Ziyang	13/08/2011	11/12/2013	01/02/2015 - 31/01/2025
GS3593: 2898-0079	Meishan	21/02/2011	17/07/2013	01/02/2015 - 31/01/2025
GS3594: 2898-0080	Neijiang	28/07/2011	31/12/2013	01/02/2015 - 31/01/2025
GS3595: 2898-0081	Luzhou	29/10/2010	21/05/2014	01/02/2015 - 31/01/2025
GS3596: 2898-0082	Guang'an, Dazhou, Aba	10/08/2011	04/09/2014	01/02/2015 - 31/01/2025
GS3597: 2898-0083	Guang'an, Leshan	30/10/2010	10/04/2014	01/02/2015 - 31/01/2025
GS3598: 2898-0084	Leshan, Luzhou	29/10/2010	30/12/2013	01/02/2015 - 31/01/2025
GS3599: 2898-0085	Mianyang, Meishan, Luzhou	29/10/2010	17/03/2014	01/02/2015 - 31/01/2025
GS3600: 2898-0086	Yibin, Mianyang, Suining, Neijiang	06/11/2010	10/06/2014	01/02/2015 - 31/01/2025
GS3601: 2898-0087	Yibin, Ziyang, Zigong	06/11/2010	14/05/2014	01/02/2015 - 31/01/2025

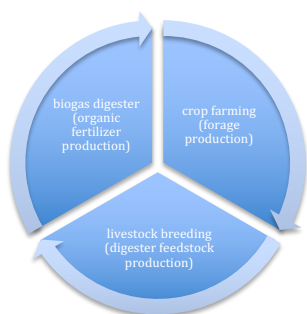
Table 1: the construction starting and commissioning date and crediting period of each CPA

In addition to the emission reduction aspect, the proposed PoA contributes to local sustainable development in various ways, as by:

- Alleviating the national energy pressure: through the proposed PoA, biogas will be utilized by thousands of households as a renewable energy, thus the shortage of energy will be alleviated.
- Economic sustainability: Biogas is a renewable energy source and the bio digesters distributed through the PoA provide users with energetic autonomy. Households become independent from coal for cooking, leading to continuous and substantial expenditure savings.
- Improving local environment: the proposed PoA will replace traditional coal stoves and reduce coal consumption by installing biogas stoves for household cooking. Therefore, a significant source of indoor air pollution will be reduced. The concentrations of CO, SO₂, PM₁₀ and NH₃ in the air will decrease.

- Formatted ... [151]
- Formatted ... [154]
- Formatted ... [155]
- Formatted ... [152]
- Formatted ... [156]
- Formatted Table ... [153]
- Formatted ... [157]
- Formatted ... [158]
- Formatted ... [159]
- Formatted ... [160]
- Formatted ... [161]
- Formatted ... [162]
- Formatted ... [163]
- Formatted ... [164]
- Formatted ... [165]
- Formatted ... [166]
- Formatted ... [167]
- Formatted ... [168]
- Formatted ... [169]
- Formatted ... [170]
- Formatted ... [171]
- Formatted ... [172]
- Formatted ... [173]
- Formatted ... [174]
- Formatted ... [175]
- Formatted ... [176]
- Formatted ... [177]
- Formatted ... [178]
- Formatted ... [179]
- Formatted ... [180]
- Formatted ... [181]
- Formatted ... [182]
- Formatted ... [183]
- Formatted ... [184]
- Formatted ... [185]
- Formatted ... [186]
- Formatted ... [187]
- Formatted ... [188]
- Formatted ... [189]
- Formatted ... [190]
- Formatted ... [191]
- Formatted ... [192]
- Formatted ... [193]
- Deleted: will

- Improving living condition and public health: by reducing the indoor coal consumption and installing a proper animal manure management system, common diseases caused by coal burning and improper handling of manure, such as respiratory diseases, eye ailment etc. will be reduced to a great extent.
- Promoting sustainable development of local agriculture: a recycle economy model can be formed through the proposed PoA, i.e. crop farming (forage production) - livestock breeding (digester feedstock production) - biogas digester (organic fertilizer production) - crop farming (higher quality of agricultural products). Thus, a sustainable development of the rural agricultural production can be achieved.
- Reducing the risks of accidents: In the past, several deadly accidents have happened during the operation of household biogas digesters in Sichuan. The proposed PoA will provide technical service to the farmers and thereby reduce the risk of such accidents.



Through the effects described above, the proposed PoA improves the rural living conditions and the financial situation of rural families and reduce GHG emissions by changing the existing manure management systems and by reducing coal consumption in remote areas.

Deleted: will

A.2. Physical/ Geographical boundary of the PoA

>>

The geographical boundary for the proposed PoA is the administrative boundary of Sichuan province, China as shown in Figure 1.



Figure 1: Location of the Sichuan Province in China.

All SSC-CPAs that will be included under the SSC-PoA will be within the defined geographical location of the SSC-PoA area and follow applicable national, provincial and/or sectoral policies and regulations in this region.

A.3. Technologies/measures and eligibility under Gold Standard

>>

A typical biogas digester system consists of different components such as inlet, inlet pipe, fermentation chamber, gas chamber storage, hydraulic chamber, movable cover and gas tube. The typical structure of a biogas digester applied under the proposed PoA is displayed in Figure 2.

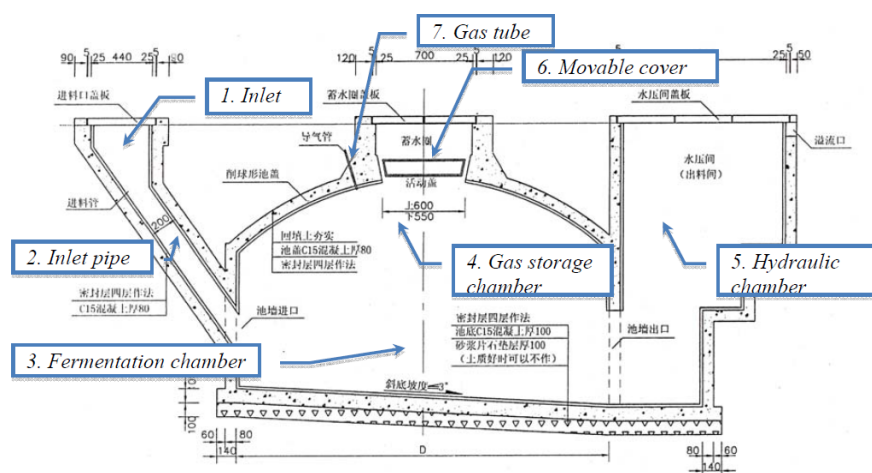


Figure 2: Typical design of a household biogas digester installed under the proposed PoA.

The technical flow is described in detail as follows:

1. Biogas generation and collection system

The design of biogas digesters will be based on national standards established by the Chinese government.

According to the national standard NY/T 465-2001, the standard designs comprise digesters of 6 m³, 8 m³ and 10 m³. All digesters constructed in Sichuan and included into the PoA will follow either this standard or an applicable national or updated that replaced the current standard. The digesters will be constructed and finally approved by engineers accredited by the local Rural Energy System.

A list of the standards relevant for household biogas digesters in Sichuan province is shown in Table 1.

Table 1: Standards relevant for the construction of household biogas digesters in Sichuan Province.

No.	Standard Code	Title
1.	GB/T 3606-2001	Domestic Biogas Stove
2.	GB/T 4750-2002	Collections of Standard Design Drawings of Household Anaerobic Digesters
3.	GB/T 4751-2002	Specification for Check and Acceptance of the Quality of Household Anaerobic Digesters
4.	GB/T 4752-2002	Operation Rules for Construction of Household Anaerobic Digesters
5.	NY/T 465-2001	Household-Scaled Biogas & Integrated Farming System-Specification on Design, Construction and Use for Southern
6.	NY/T 1496.1-2007	Biogas Transmission System for rural household_Part 1: Thermoplastic Pipes

		Biogas Transmission System for rural household_Part 2: Thermoplastic Pipe Fittings
		Biogas Transmission System for rural household_Part 3: Thermoplastic Waves
7.	NY/T 1639-2008	Technical Criterion on Rural Biogas Digesters and Three Renovations
8.	NY/T 858-2004	Biogas Pressure Meter
9.	NY/T 859-2004	Desulfurizer household biogas
10.	NY/T 860-2004	Digester sealing Coatings
11.	DB51/T 770-2008 (Sichuan)	The Criterion of Supportive Installation on Rural Household Biogas Digester

The design and construction of the digesters is certified by technicians accredited by the Ministry of Agriculture. The digesters are usually installed below the pigpen and the inlet will be directly connected to livestock room so that the dung can be drained into the digester directly without being stored under anaerobic conditions before. Additionally, a toilet will be installed in each household next to the livestock room so that human excreta can be treated in the digester as well.

After being fed into the inlet of the whole system, the manure will reach the fermentation chamber where it is digested with a planned retention time of several months. Within the fermentation chamber, the main biogas generation takes place. The gas is stored in the upper part of fermentation chamber just above the slurry surface (the gas storage chamber). If more gas is generated than consumed, the pressure within the gas storage chamber will increase and press the liquids into the hydraulic chamber. When the gas is extracted for utilization via the gas tube, the pressure decreases again and allows the liquids to flow back into the fermentation chamber. This system guarantees a strict separation of the gas storage and the hydraulic chamber where the sludge can be extracted and used as organic fertilizer.

By placing the digester tank below the barns, a relatively stable temperature can be achieved within the digester. As the generation of biogas requires a warm environment, this is important to ensure the availability of gas without additional heating of the digestate.

2. Biogas utilization system

After the biogas is extracted from the gas storage chamber, it is led into desulphurization and dehydration units to purify the gas and extract harmful substances. Eventually, the gas will be fed into a biogas stove that can be used for cooking purposes, and thereby replace coal as fuel. To allow a proper gas flow control and completely shut the gas pipe when the stove is switched off, a pressure gauge will be installed.

Special maintenance procedures including cleaning the sulfide capture device and periodic controls and maintenance of the burners (cooking stoves, rice cookers, heaters, etc.) have been developed to ensure effective operation of the biogas system and proper utilization of digested slurry throughout the lifetime of the digester. To ensure the proper implementation of these methods, the technical service team that is set up during the Programme Activity will support the participating households.

All main equipment in the proposed PoA is domestically produced; the proposed PoA involves no technology and installations from abroad.

3. Qualification of the biogas technicians and technical acceptance of the digesters

According a rural biogas construction regulation (Rural Biogas Construction Project Management Regulation), issued by the Ministry of Agriculture in 2003, rural household biogas digesters have to be constructed by certified technicians. In order to get certified, the engineers have to complete a training following a regulation by the Ministry of Labor and Social Security (Profession Standard Number: 5-99-02-01).

After the construction, all biogas digesters have to pass a technical acceptance procedure to ensure that they have been constructed properly. This procedure of this acceptance is defined by the provincial standard DB51/T 271.3—2009. The acceptance is performed and recorded by the local Rural Energy Offices.

4. Digester IDs

The biogas digesters in Sichuan are identified by a system of ID numbers. To attach the ID numbers to the digesters, two different systems are used in Sichuan. The IDs are either engraved into the wet concrete of the digesters during construction or are painted on the digesters itself or the wall of the rural household next to the digester. These ID numbers are universal to each digester and will be used to clearly identify the single units for the proposed PoA and will be introduced in more detail in section B.

The ID numbers are to be given to the digesters by the Rural Energy Offices after the final check and will be listed on the technical acceptance records.

According to GS4GG Principles and Requirements (version 1.2), there are General Eligibility Criteria under GS:

(a) The project type is waste management and handling (biogas generation and utilization) The activities under the PoA include the installation of a large number of household biogas digesters, and all recovered methane from digestion of animal manure, which is non-fossil, non-depletable energy source, will be utilized for cooking purposes.

(b) Each activity under the PoA is located in P.R. China;

(c) Project Boundary of the PoA is clearly defined as Sichuan province; - Each activity under the PoA is a small-scale CDM project with capacity <15MW for each year of the crediting period; No credits related to GHG reductions of each activity under the PoA are otherwise committed under another mechanism other than the Gold Standard one, therefore no double counting would occur from the issuance of Gold Standard carbon credits originating from each activity under the PoA;

(d) Each activity under the PoA generates heat from biogas thus replacing fossil fuels. All the biogas is generated by swine manure (renewable biomass) and is intended for household cooking use. It is in line with China's legal, environmental, ecological and social regulations;

(e) Contact details of project developer and Project participants are provided in this PDD;

(f) and (g) Legal ownership and other rights of the PoA are clearly defined. C/ME, participating households and the Sichuan Rural Energy Office (SREO) have signed agreement regarding the ownership of carbon credits generated by the activities under the PoA;

(h) No Official Development Assistance (ODA) is used for each activity implementation under the PoA;

General eligibility criteria as per “Community Services activity requirement” document (version 1.2):

The project activities in the PoA are biogas digesters implementation and deliver energy (biogas) to households, therefore, it belongs to “waste management and handling” project type, it is eligible as per “Community Services activity requirement” document (version 1.2);

Project Boundary of the PoA is clearly defined as Sichuan province;

The project activities in the POA apply UNFCCC methodologies (AMS III.R and AMS I.I) for quantification of GHG reductions, each CPA has GHG emissions reductions no more than 20,000 tCO2eq per annum, i.e. micro-scale activities.

No Suppressed Demand baseline is applied in the activities of the POA.

Specific eligibility criteria for Biogas project, as per “Community Services activity requirement” document (version 1.2):

1) Methane recovery project activities shall be eligible for emission reductions from both methane avoidance (including from the flared biogas fraction) and non-renewable fuel substitution as long as at the time of validation, evidence shows that the system is designed in a way to make use of at least some of the biogas recovered for the delivery of energy services (e.g. electricity, heat).

Applicable. Each activity under the PoA is designed to capture methane and use the methane for energy demand for cooking.

2) Methane recovery project activities in waste water treatment plants related to Palm Oil production shall comply with all rules provided for palm oil project activities in the section ‘Electricity and/or heat, and liquid biofuels from biomass resources’.

Not applicable to the PoA as no waste water treatment is involved in the PoA.

Therefore, based on above, the PoA meets the eligibility criteria under the GS.

Now, the POA is seeking for Renewal under GS4GG for 2nd crediting period of the POA. As per Design certification renewal rules, Principles and requirements, v1.2:

(a) Changes in the Project as related to the General Eligibility Criteria.

The project design and scale of project activities in the POA is not changed. The general eligibility criteria as per community services activity requirement has been applied, as indicated above. Eligibility criteria is met.

(b) Incorporation of any relevant updates to the Gold Standard Requirements.

The POA has the GS4GG transition and got approval in 01/2018.

(c) Re-definition of Baseline Scenario and any impact of change on the Eligibility Principles, Criteria and Requirements.

Baseline scenario is not changed, still valid for the next crediting period. In the absence of the project activity the animal manure is stored in deep pits anaerobically without methane recovery and the households use coal for cooking purposes.

According to Project Standard (version 02.0), the methodological tool “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period” (version 3.0.1) is adopted to assess the continued validity of the baseline

Formatted: Font: Not Bold, Complex Script Font: Not Bold

Formatted: Font: Not Bold, Complex Script Font: Not Bold

Formatted: Font: (Default) Arial, Font color: Auto, Complex Script Font: Arial, 11 pt

Formatted: Font: (Default) Arial, Font color: Auto, Complex Script Font: Arial, 11 pt

Formatted: Font: (Default) Arial, Font color: Auto, Complex Script Font: Arial, 11 pt

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Indent: Before: 1.27 cm, No bullets or numbering

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Indent: Before: 1.27 cm, No bullets or numbering

Formatted: Font: (Default) Arial, Not Bold, Complex Script Font: Arial, Not Bold

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Font: (Default) Arial, Not Bold, Complex Script Font: Arial, Not Bold

Formatted: Font: (Default) Arial, Complex Script Font: Arial, English (US)

Formatted: Line spacing: single

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Font: (Default) Arial, Complex Script Font: Arial, English (US)

and to update the baseline. This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph 49 (a) of the modalities and procedures of the clean development mechanism.

Step 1: Assess the validity of the current baseline for the next crediting period

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

Formatted: Line spacing: single

If the current baseline complies with all relevant mandatory national and/or sectoral policies which have come into effect after the submission of the project activity for validation or the submission of the previous request for renewal of the crediting period and are applicable at the time of requesting renewal of the crediting period, go to Step 1.2.

Formatted: Line spacing: single

- There are no new national and/or sectoral policies that could affect the baseline scenario at the time of requesting renewal of the crediting period. The current baseline complies with all relevant mandatory national and/or sectoral policies. Hence in the absence of the project activity the animal manure is stored in deep pits anaerobically without methane recovery and the households use coal for cooking purposes.

Formatted: Indent: Before: 2.01 cm, Line spacing: single, No bullets or numbering

Step 1.2: Assess the impact of circumstances

Formatted: Line spacing: single

Assess the impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline emissions, without reassessing the baseline scenario.

In the situation where the baseline scenario identified at the validation of the project activity was the continuation of the current practice without any investment, an assessment of the changes in market characteristics is required for the renewal of the crediting period.

Formatted: Line spacing: single

- The baseline scenario identified at the validation of the project activity was the continuation of the current practice without any investment. It does not need any further investment to store the animal manure in existing deep pits. And coal is still dominated in the energy structure in China¹, and is commonly used for cooking for households.

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Evaluate whether the conditions used to determine the baseline emissions in the previous crediting period are still valid. Assess the availability of new fuels or raw materials and the impact of electricity or fuel prices in the identification of the current practice for the baseline emissions.

Formatted: Font: (Default) Arial, Complex Script Font: Arial

- The conditions used to determine the baseline emissions in the previous crediting period are still valid. The availability of new fuels or raw materials or the level of fuel prices has no impact on the identification of the current practice for the baseline emissions. Presently the coal consumption is dominated in daily lives of households and households still use deep pits to store animal manure. The availability of new fuels or raw materials or the level of fuel prices has no impact on the baseline emissions.

Formatted: Line spacing: single

¹ China Energy Statistical Yearbooks

If the new circumstances make a continued validity of the current baseline not plausible, then the current baseline needs to be updated for the subsequent crediting period.

- As there are no new circumstances that make a continued validity of the current baseline not plausible, the current baseline does not need to be updated for the second crediting period.

Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested

This sub-step should only be applied if the baseline scenario identified at the validation of the project activity was the continuation of use of the current equipment(s) without any investment, so it's not applicable for the project.

Step 1.4: Assessment of the validity of the data and parameters

The parameter $FC_{BL,Y}$ used for baseline emissions calculations are determined via baseline survey in mid of 2010 and it is fixed ex ante for the entire crediting period of CPAs. The other parameters $VS_{LT,Y}$ and $B_{0,LT}$ are still valid based on the latest IPCC 2006 Guidelines for National Greenhouse Gas Inventories. Therefore, all parameters are still valid for the renewed crediting period.

Based on above application of Steps 1.1, 1.2, 1.3 and 1.4, it is confirmed that the current baseline as well as data and parameters are still valid for the subsequent crediting period, then the current baseline, data and parameters can be used for the renewed crediting period.

(d) Any Gold Standard activity, product and methodology-specific Requirements.

The POA applies for CDM methodologies AMS III.R (version 3) and AMS I.I (version 4), still valid for the 2nd crediting period.
The PoA applies for community services activity requirements.

(e) Demonstration of Ongoing Financial Need, where relevant

As per section 4.1.9 of community service activity requirement (v1.2), the project activities of each CPA are biogas digesters project type and have less than 20,000tCO₂e per year, therefore, it meets microscale projects definition and not required to prove financial additionality and not required to demonstrate ongoing financial need.

A.4. Target/Indicator for each of the minimum three SDGs targeted by the POA

>>

Sustainable Development Goals Targeted	Most relevant SDG Target	SDG Impact Indicator (Proposed or SDG Indicator)
13 Climate Action (mandatory)	13.3 Improve education, awareness-raising and	13.2.2 Total greenhouse gas emissions per year

Formatted: Line spacing: single

Formatted: Line spacing: single

Formatted: Line spacing: single

Formatted: Line spacing: single

Formatted: Line spacing: single

Formatted: Indent: Before: 1.27 cm, No bullets or numbering

Formatted: Font: (Default) Arial, Complex Script Font: Arial, Superscript

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Formatted: Font: (Default) Arial, Complex Script Font: Arial, 11 pt

Formatted: Indent: Before: 1.27 cm, No bullets or numbering

Formatted: Font: (Default) Arial, Font color: Auto, Complex Script Font: Arial

Formatted: List Paragraph, Space Before: 0 pt, After: 0 pt, No widow/orphan control, Don't keep lines together

	human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	
8 Decent work and Economic Growth	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	Indicator 8.3.1 Proportion of informal employment in total employment, by sector and sex
7 Affordable and Clean Energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Indicator 7.1.2: Proportion of population with primary reliance on clean fuels and technology
6 Clean Water and Sanitation	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	Indicator 6.2.1: Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water
3 Good Health and Well Being	3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Indicator: 3.9.1 Mortality rate attributed to household and ambient air pollution

A.5. Coordinating/managing entity

>>

The C/ME is Chengdu Oasis Science & Technology Co., Ltd (Hereafter to referred as "Chengdu Oasis" or "Oasis").

A.6. Funding sources of PoA

>>

No public funding from Annex 1 countries is provided for the proposed programme of activities (PoA).

However, co-funding for the installation of bio digesters is provided by SREO under a public Chinese subsidy scheme. The source of funding of the subsidy scheme does not comprise international funding or any other form of ODA. Besides, no bilateral or multilateral fund project participants are involved in the PoA.

SECTION B. MANAGEMENT SYSTEM AND INCLUSION CRITERIA

B.1. Management System

>>

Description of the operational and management arrangements established by the coordinating/managing entity for the implementation of the PoA, including:

- (i) A record keeping system for each CPA under the PoA,
- (ii) A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA,
- (iii) The SSC-CPA included in the PoA is not a de-bundled component of another CDM programme activity (CPA) or CDM project activity.
- (iv) The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA;

The C/ME in cooperation with the Sichuan Rural Energy Office will implement the PoA.

- (i) A record keeping system for each CPA under the PoA.

To manage the PoA and all included CPAs, the C/ME – Oasis Chengdu – is responsible for maintaining several databases that hold all relevant information related to the implementation of all CPAs and their households.

The record that is kept for the CPA organisation is displayed in Table 2. It comprises the number of the CPA and the contact data for the employee in the City REO that is responsible for the CPA management. If one CPA includes households of more than one city, this record will be extended to comprise the data for all involved cities.

	CPA Information
CPA Number:	
CPA City:	
Contact Name in CPA city:	
Telephone Number:	
Fax Number:	
Email:	
Address:	
ZIP Code:	

Table 2: CPA record keeping system

Furthermore, a household database will be set up to manage the necessary household data for each CPA. The minimum data contained in this database is shown in following table:

Table 3: Minimum data for the household database

HH ID	Name	City	County	Town	Village	Digester ID	Construction finished
00001	Name A	City A	County A	Town A	Village A	CityA-CountyA-ID	Date A

00002	Name B	City B	County B	Town B	Village B	CityB-CountyB-ID	Date B
00003	Name C	City C	County C	Town C	Village C	CityC-CountyC-ID	Date C
...	

HH ID: This ID number will be an identification number independently from the ID number provided within the subsidy scheme.

Name: This field will be the name of the household leader.

City, County, Town, and Village: Detailed information on the village in which the household is located. Some households cannot be assigned to one specific village. In that case, the two (or sometimes more) neighbouring villages will be named in the field "Village".

Digester ID: This data field contains the ID number that is used for the digester within the subsidy scheme. The ID numbers are unique within counties and additionally contain the city and county information.

Construction finished: To record when the digester construction has been finished and the actual reduction of emission begins, the date of construction finalization will be recorded for each digester. Therefore, it can be ensured, that the digesters only contribute to the emission reduction calculation once they are fully constructed. This parameter will be determined after the CPAs have been included to the PoA.

These databases will be kept as electronic versions in the office of the C/ME in Chengdu and backed up regularly.

All data acquired within this data recording system will be kept at least until two years after the end of the crediting period of the PoA.

The databases of the participating households and the implementing rural energy offices, as well as the close contact with all relevant stakeholders will allow a comprehensive system of control over the implementation of the PoA and its CPAs.

By organizing regular briefings and project meetings with the rural energy offices, the C/ME will ensure that the local implementers are familiar with the PoA guideline and all relevant tasks. In case of any uncertainties, the C/ME can be contacted in its local office in Chengdu or by any other means of communication to support the local staff.

Furthermore, Oasis will also conduct regular spot checks of included households to ensure that all digesters included into the PoA have passed the technical acceptance. To do so, the initial list of households is compared to the records of the technical acceptance procedures. In case of any conflicts, the C/ME will clarify the open points and provide further support to the offices that manage the groundwork.

The ongoing operation of the digesters is part of the monitoring plan and will be determined for the monitoring sample group. The monitoring system will be described in section 1.7 of this PoA DD.

- (ii) A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA.

In order to avoid double accounting and to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA, the implementing entity of a CPA shall, in accordance with the eligibility criteria stipulated in section K confirm with a written statement or enter into a respective contractual arrangement with the C/ME providing that:

1. The CPA and all biogas systems to be installed under the CPA have not been and will not be registered as a single CDM project activity nor as a CPA under another PoA.
2. The implementing entity is aware that the CPA will be subscribed to the present PoA.
3. In the event that the CPA implementer is distinct from the C/ME: The implementing entity cedes its rights to claim and own emission reductions under the Clean Development Mechanism of the UNFCCC to the C/ME of the proposed PoA.

To further ensure that no double counting occurs due to the participants breaking the signed contract, an additional checking on two levels will be undertaken by the C/ME:

1. Internal cross-check procedure: Whenever a new CPA is included in the PoA, the C/ME will confirm that no household is included within the new CPA that is already included in a CPA that has been included previously. To ensure this, comprehensive comparison of the unique digester serial numbers of new CPA and all previous CPAs will be performed and documented.
2. External cross-check procedure: The inclusion of households biogas digesters that are already included in another registered CDM project or CPA of another registered PoA is not possible for the following reason:
 - a. All households that construct biogas digesters in Sichuan province will be managed by the SREO.
 - b. The Sichuan Rural Energy Office is the only authority that implements household biogas digesters in Sichuan province.
 - c. The C/ME has signed an exclusive agreement with the Sichuan Rural Energy Office to develop to proposed PoA to further support the household beyond the national subsidy scheme using the CDM as a financial resource in the targeted areas².

²The exclusive agreement between the C/ME and the Sichuan Rural Energy Office will be provided as evidence.

To further prove the validity of this agreement, a cross check of the boundaries of all registered CDM projects and registered PoAs that target the installation of household biogas digesters in rural areas, will be performed and documented. If such CDM project or PoA with an overlapping project boundary is registered and its project documents are available on the official CDM websites, the C/ME will confirm that the new CPA and the existing registered CDM project or PoA do not comprise overlapping households by checking the location of the involved households. In case a published CDM project or CPA comprises the installation of household biogas digesters in cities that are also part of the CPA region of a newly to be included CPA of the proposed PoA, the household databases will be checked in cooperation with the project developer of the respective CDM activity. The data of such check will be available for other relevant CDM projects, due to a regulation that was issued by the Sichuan Rural Energy Office. Before a CDM developer submits CDM documents that include household biogas systems implemented under the national subsidy scheme in Sichuan, to any entity involved in the CDM registration process, he is obliged to submit the household information to the SREO first. This data can then be used for possibly necessary double counting checks.

In case during these checks households are found that are identical to households that have already been included in a previous CPA or third-party CDM project or CDM project activity, the respective CPA is set on hold. The responsible REO is contacted to confirm all data. If the data is correct and the household has been included in any prior activity, it will be removed from the databases before the CPA is reactivated and submitted for inclusion. A record on such households will be kept and provided on demand to any DOE during inclusions or verifications.

- (iii) The SSC-CPA included in the PoA is not a de-bundled component of another CDM programme activity (CPA) or CDM project activity.

According to Guidelines on Assessment of Debundling for SSC Project Activities, the CPA of a PoA is exempted from performing de-bundling check if each of the independent subsystems/measures (e.g., biogas digester, solar home system) included in the CPA is no larger than 1% of the small-scale thresholds defined by the methodology applied, i.e. the CPA is considered as not being a de-bundled component of a large scale activity.

To demonstrate that the independent subsystems will stay well below 1% of the small-scale thresholds, two values have to be considered:

1. 1% of the maximum thermal energy provided by the CPA referring to the type-I component of the project activity:
Considering the small-scale threshold of 15MW_{thermal}, it has to be proven that the subsystems do not exceed a maximum capacity of 150 kW.
2. 1% of the maximum emission reduction due to methane avoidance referring to the type-III component of the project activity:
As the emission reduction due to methane avoidance for a small-scale methodology is 60 ktCO_{2e}, it should be shown that the individual subsystems do not exceed 1% of this, i.e. 600 tCO_{2e}. The actual emission reduction from methane avoidance per unit will be calculated for each CPA, explained in Appendix 4, and compared to the threshold of 600 tCO_{2e} in the SSC-CPA-DD.

The compliance with these two criteria is part of the eligibility criteria for each new CPA. During the inclusion of a new CPA, evidence will be provided to demonstrate, that each subsystem will stay well below 1% of the small-scale threshold and therefore, the CPAs are exempted from performing a de-bundling check.

To prove the compliance with both criteria, two checks are performed:

1. The capacity threshold of 150 kW will be compared to a biogas stove test report provided as evidence together with the CPA during the inclusion.

The stove test record provided to the DOE shows a rated capacity of 2.955 kW. As it is highly unlikely that the stove capacity will increase by more than 5,000%, it can be concluded that the rated capacity of each single household will stay well below the threshold of 150 kW.

2. Following the equations derived in Appendix 4, the emission reduction per methane recovery unit will be calculated for each CPA to prove that the value does not exceed the threshold.

To demonstrate the unlikeliness of the emission reduction exceeding the threshold of 600 tCO₂e, the emission reduction due to methane avoidance is calculated exemplary in the following. The formula derived in Appendix 4 shows that apart of the methane conversion factor of the baseline manure management system and the number of pigs, all other values are constants. According to the table 9 provided in Appendix 4, the methane conversion factor depends on the annual average temperature. Therefore, the two input values needed to calculate the emission reduction due to methane avoidance for a single household are the number of pigs and the mean annual temperature. The baseline emission shows a proportional dependence on both factors, which means that for increasing temperature and number of pigs, the emission reductions will also increase.

The calculation shall be carried out exemplary for the highest annual average temperatures of all cities in the Sichuan Province in 2015. According to the table 8 provided in Appendix 4, the highest annual average temperature of 21.2°C (rounded to 21°C for the following analysis) was measured in Panzhihua, a goal seek analysis to determine the number of pigs in one household for which the threshold of 600 tCO₂e is exceeded delivers a number of 4040. Even if the annual temperature should increase up to 28°C³, the number of pigs for which the emission reduction passes the threshold is still 2,060.

Due to data determined in the preparing studies and the fact, that household biogas digesters are not designed to process the manure of such big number of pigs, it can be concluded that no single household will ever exceed the threshold of 600 tCO₂e.

The positive result of the check against both criteria is part of the eligibility criteria (criterion 7). The outcome of the check will be discussed in each CPA-DD.

- (iv) The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA;

³ This is the maximum temperature listed in IPCC 2006, V4_10_Ch10_Livestock that is used to determine the MCF factor of the baseline manure management system. If the annual average temperature increases above this temperature, the MCF value for 28°C is to be used for the following calculations.

As per the eligibility criteria for CPAs in section K literals 3.b) and 4.e) both the CPA implementers and the households operating the biogas systems are aware and have agreed that their activity is being subscribed to the proposed PoA.

Tentative Operating Framework of the PoA

In the paragraphs below a tentative operating structure for the PoA is described. If unexpected events should make certain changes in the structure necessary, such changes will be recorded precisely and be provided to any relevant party in the future.

As C/ME, Chengdu Oasis is in charge of all tasks related to the CDM and the proposed PoA. These tasks include (inter alia):

- Defining criteria for the participating households,
- bundling the households to form the CPAs,
- managing and maintaining the household databases for the separate CPAs,
- initiating the inclusion of new CPAs to the PoA,
- collecting and calculating necessary monitoring data in cooperation with the Chinese Academy of Agricultural Engineering,
- writing monitoring reports,
- organizing verifications and representing the CPAs including all relevant data to the DOE,
- communicating with the relevant CDM stakeholders,
- selling the CERs to the designated buyer
- and distributing the carbon revenues to support farmers, finance the technical service network, etc.

The Sichuan Rural Energy Office will be entrusted by the C/ME to take over the technical responsibilities like:

- conducting baseline surveys to determine and monitor the baseline emissions,
- promoting the PoA and resulting CER revenue support especially for poor households,
- selecting the households that will be included in the PoA according to the criteria provided by the CE,
- constructing and commissioning of the digesters,
- establishing and operating service centers and providing free technical support to the included households,
- cooperating with a representative sample of households to raise data needed for the monitoring
- and recording and collecting data from the sample households.

By managing the work of city, county and district level Rural Energy Offices, as well as cooperating with existing Agricultural Technology Service Centers and Village Committees, the PoA management already has a widely spread structure that will allow a very close cooperation with all related households. By providing trainings to the local Rural Energy Offices, the SREO will ensure the completion of the tasks at county and district levels.

Of special importance during the successful implementation of the PoA is the installation and management of the service network that will be financed by the carbon revenues. The SREO will operate the service centers via the county level Rural Energy Offices to provide service to 300 – 500 households per service center.

The detailed structure of the PoA management can be seen in Figure 3:

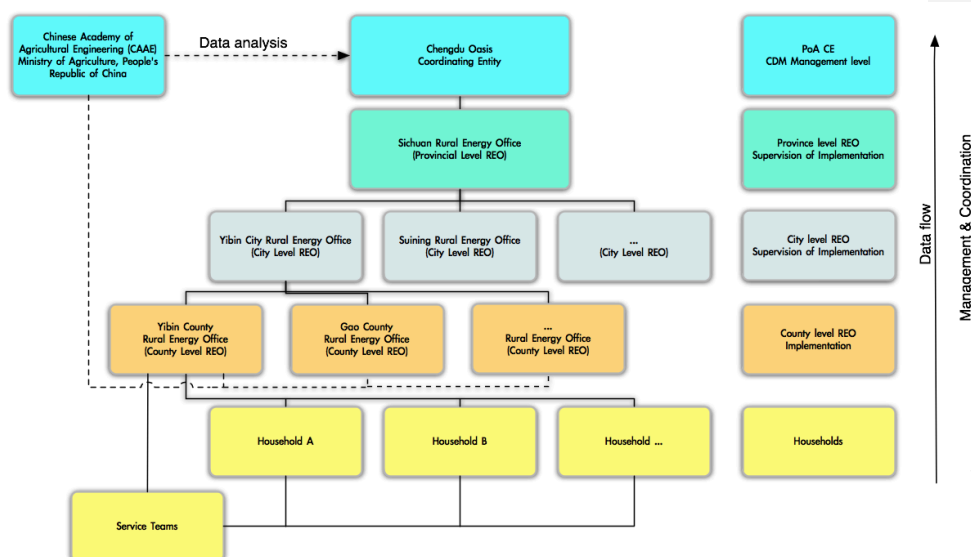


Figure 3: Operational structure of the PoA. In this chart, only the branch following the SREO, down to the Yibin City REO and the Yibin County REO is expanded. All other branches are collapsed for simplicity.

A description of the main tasks of the PoA and the responsible entities is given in Table 4:

Table 4: Description of the PoA responsibilities

Activities	Task Description	Entity in Charge
Writing PoA guideline	Writing PoA guideline with instructions for all involved stakeholders to clarify responsibilities and tasks.	The C/ME will provide the guideline and the SREO will be responsible for the implementation.
Baseline identification	The baseline emission shall be defined during a comprehensive baseline survey.	Under the overall management of the Sichuan Rural Energy Office, the local Rural Energy Offices will conduct the survey and determine the baseline emissions.
Household screening	Recruiting households that meet the applicability criteria of the PoA.	SREO in cooperation of the local REOs will comprise lists of the households that meet the criteria compiled by Chengdu Oasis.
CPA structuring	Bundle the households to the CPAs.	The C/ME and the SREO will structure the data provided by the city level REOs and determine which areas and households are to be bundled together to form the CPAs.
Digester construction	Construct the digesters and install the related equipment.	The Rural Energy Offices at the city and county level will organize and supervise the technical team to construct the digesters.

Activities	Task Description	Entity in Charge
Household instruction	Instruct the local farmers on the use of household biogas digesters and provide briefings on the CDM requirements.	Under the supervision of the provincial SREO, the local REOs will provide basic trainings according to technical principal and CDM related requirements provided by the C/ME.
Monitoring	Collection of monitoring data.	Monitoring data will be collected by the local REOs according to instructions by the C/ME.
Data archiving and analysis	Receiving monitoring data, structuring and maintaining the databases and provide the data in a suitable format for calculating emission reductions.	The collected data will be handled, maintained and archived by the Chinese Academy of Agricultural Engineering in coordination with the C/ME.
CDM application	Develop and register the PoA as along the CDM regulations	Chengdu Oasis as C/ME will take the full responsibility for the CDM application.
CER trading and revenue allocation	Trading the certificated CERs and allocate the revenue	Chengdu Oasis as C/M E will in charge of trading the CERs and allocating the revenue based on the agreement with the related participants.
Service support	Establish a functional service network to provide the necessary service support to the programme households.	The SREO in cooperation with the local subsidiaries will implement the service network and provide free service to the programme households.

B.2. Application of methodologies

>>

A CPA under the proposed PoA involves the instalment and operation of a large number of household biogas systems during a certain time period at households located within a confined geographical area in Sichuan Province, China. To simplify management, validation and verification, the Coordinating/Managing Entity will try to bundle the CPAs in a geographically reasonable way, i.e. to only include households in one specific city in one CPA. However, this is only a target and it might be necessary to bundle households from different cities.

A CPA builds on and integrates into the existing subsidy and implementation program for household bio digesters of the Sichuan Rural Energy Office (SREO) and its subsidiaries. A CPA consists of the extension of the existing program towards low-income households that are not able to participate under the SREO program without further support.

Therefore, a CPA involves:

- a) The installation of a large number of bio digesters at low-income households
- b) Free technical support to facilitate continuous operation of the installed systems

Implementation, operation, maintenance and monitoring of the CPAs will be primarily executed by the SREO and its subsidiaries and supervised by the C/ME.

By installing biogas digesters in which all organic waste produced by the households can be used to generate biogas; the existing deep pits that are used to store the manure and other waste will be abandoned and GHG emissions will be avoided. All digesters within the CPAs will be installed by qualified and certified technicians from SREO. After the successful installation and commission, technical service will be offered to the participating households on a regular basis to ensure a stable operation and prevent a relapse to old habits.

The biogas generated by the digesters will be fed into a newly bought biogas stove that can be used for cooking. This will lead to a reduction consumption of coal that is used by most households for cooking. As the biogas is a renewable resource, this will lead to a further reduction of GHG emissions

The residue effluent can be extracted from the biogas digesters easily. It can be used as organic fertilizer thereby resulting in an aerobic application of the sludge instead of additional CH₄ emissions, which are generally experienced in conventional manure treatment.

The CPAs included in the proposed Programme will apply the following combination of methodologies:

AMS-I.I.– Biogas/biomass thermal applications for households/small users (version 04) (EB68, Annex 25);

AMS-III.R– Methane recovery in agricultural activities at household/small farm level (version 03) (EB69, Annex 23).

Both methodologies are approved for use in a PoA. Furthermore, AMS-III.R refers to AMS-III.D - Methane recovery in animal manure management systems (version 21) to calculate baseline and project emissions.

Tool⁴ - Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period - Version 03.0.1

B.2.1.1. Multiple technologies/measures

>>

The activities under this PoA applies for combination of two small scale methodologies, i.e. AMS III.R (version 03) and AMS I.I (version 04).

As per the Appendix 1 (Instructions for the consideration of cross effects for the application of multiple methodologies for programmes of activities) of project standard for PoA (version 02.0):

Type I: Cross effects could occur when there is an exchange of energy (thermal, mechanical or electrical) or mass transfer between different measures within a CPA or between CPAs, where the transfer occurs from a primary or independent measure to a dependent measure;

⁴ <http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-11-v3.0.1.pdf>

For the type I component of the CPAs under this PoA, it employs only one measure, i.e. biogas generation using animal manures for households, there is not any exchange of energy or mass transfer between different measures within a CPA or between CPAs. Therefore, no cross effects exist.

B.3. Eligibility criteria for inclusion of a VPA in the PoA

No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion
1	The CPA has been approved by the C/ME.	The C/ME manages the CDM implementation of the proposed PoA. It shall therefore approve the CPA in a written statement.	Written approval letter of the C/ME
2	The geographic boundary of the CPA lies within Sichuan province.	The boundary of each CPA shall be a subset of and not exceed the PoA boundary.	<ul style="list-style-type: none"> CPA-DD
3	Measures to avoid double counting are implemented.		
3.1	<p>The CPA implementers confirm in written statements that:</p> <p>a) All biogas systems to be newly installed under the CPA are not and will not be part of another CDM project or program activity and that no CERs will be claimed for the biogas system other than those to be claimed by the C/ME on behalf of the CPA implementer and the participating households respectively; and</p> <p>b) That he is aware and agrees with the inclusion of the CPA to the proposed PoA.</p>	The written statements of the CPA implementer compose the first layer of measures to avoid double counting.	CPA inclusion letter
3.2	The biogas systems for all involved households is to be newly installed under the CPA is not and will not be part of another CDM project or program activity and that no CERs will be claimed for the biogas system other than	A written statement of the technology implementer comprises the second layer of measures to avoid double counting.	Written statement by the implementer of the technology (SREO).

No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporti ng evidence for inclusion
	those to be claimed by the C/ME on behalf of the CPA implementer and the participating households respectively;		
3.3	A check for double counting of single households came to a negative result.	The check performed by the C/ME (procedures described in section B) composes the third layer of measures.	<ul style="list-style-type: none"> • CPA household databases of all previously included CPAs. • CPA household database of new CPA. • Exclusive agreement between SREO and the C/ME. <p>Documented outcome of the double counting check performed by the C/ME. This report should cover the source of information used (documents available on unfccc.int and household databases in case of overlapping regions).</p>
4	All relevant applicability criteria of methodology AMS-III.R shall be met.		
4.1	The project installs methane recovery and combustion systems to existing sources of methane emissions.	Applicability criterion 1 (a) of methodology AMS-III.R.	Written statement by the technology implementer (SREO).

No. Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion
4.2 The installed methane recovery systems achieve annual emission reductions of less than 5 tCO ₂ e. (This can be shown by demonstrating that the annual average temperature does not exceed 21°C and the annual average number of pigs is no larger than 33.7 for the project households.	Applicability criterion 2 of methodology AMS-III.R. The calculations and explanations carried out in Appendix 4 demonstrate that for an average annual temperature of 21°C and below, the maximum number of pigs for which the emission reductions stay below 5 tCO ₂ e is 33.7. Therefore, these two figures will be used as a simplified criterion. In case the mean annual temperature should exceed 21°C for a new CPA, the detailed calculation will be provided during the inclusion.	<ul style="list-style-type: none"> • Baseline survey (annual average number of pigs) • Temperature data from official sources (e.g. the Sichuan Statistical Yearbook). • ER calculation sheet (in case the annual mean temperature should exceed 21°C).
4.3 Methodology AMS-III.R is used in combination in with methodology AMS-I.I.	Applicability criterion 3 of methodology AMS-III.R.	CPA-DD
4.4 The sludge must be handled aerobically. In case of soil application of the final sludge the proper conditions and procedures that ensure that there are no methane emissions must be ensured.	<p>Applicability criterion 4 (a) of methodology AMS-III.R.</p> <p>The households are advised on the aerobic sludge handling according to a guideline from the Sichuan Biogas Society. To confirm the compliance with this criterion, the claimed emission reductions are reduced by the share of households that do not apply the correct procedures after the monitoring.</p>	Statement on aerobic application by the Sichuan Biogas Society
4.5 Measures shall be used (e.g. combusted or burnt in a biogas burner for cooking needs) to ensure that all the methane collected by the recovery system is destroyed.	Applicability criterion 4 (b) of methodology AMS-III.R.	<ul style="list-style-type: none"> • Written statement on household advice by the technology implementer (SREO). <p>Technical standard NY_T 1639-2008 that describes the necessity of a biogas stove to be installed with the biogas digester.</p>
4.6 Aggregated annual emission reductions of all systems	Applicability criterion 5 of methodology AMS-III.R.	CPA-DD

No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion
		included shall be less than or equal to 60 kt CO ₂ equivalent.	
5	All relevant applicability criteria of methodology AMS-I.I shall be met.		
5.1	This category comprises activities for generation of renewable thermal energy using renewable biomass or biogas for use in residential, commercial, institutional applications (e.g. for supply to households, small farms or for use in built environment of institutions such as schools). Examples of these technologies that displace or avoid fossil fuel use include but are not limited to biogas cook stoves, biomass briquette cook stoves, small scale baking and drying systems, water heating, or space heating systems.	Applicability criterion 1 of methodology AMS-I.I.	CPA-DD
5.2	The total installed/rated thermal energy generation capacity of the project equipment is equal to or less than 45 MW thermal.	Applicability criterion 2 of methodology AMS-I.I.	<ul style="list-style-type: none"> • CPA-DD • Biogas stove test report
5.3	Each unit (e.g. cook stove, heater) shall have a rated capacity equal to or less than 150 kW thermal	Applicability criterion 3 of methodology AMS-I.I.	<ul style="list-style-type: none"> • CPA-DD Biogas stove test report
6	All households meet the inclusion criteria for households to be included in a certain CPA. They		
6.1	are located within the geographic boundary of the CPA.	No household should be located outside the defined CPA boundary.	<ul style="list-style-type: none"> • CPA database household CPA-DD

No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion
6.2	generate animal manure and wastes from agricultural activities that are currently stored under anaerobic conditions in deep pits.	To allow the identical application of the baseline and monitoring methodologies to all households, only households with an existing pit for manure storage are accepted.	Written statement from SREO after choosing the households for the PoA.
6.3	currently use coal as source of energy for cooking.	To allow the identical application of the baseline and monitoring methodologies to all households, only households with an existing pit for manure storage are accepted.	Written statement from SREO after choosing the households for the PoA.
6.4	install a new household biogas system, considering the relevant technical standards.	To ensure that all households actually generate emission reductions, it has to be ensured that the planned technology is actually installed at the programme's households.	<ul style="list-style-type: none"> • Written statement by the technology implementer (SREO). <p>All applicable and latest versions of the standards listed in Table 1 of the PoA-DD.</p>
6.5	are considered low-income households.	The PoA focuses on poor households. Therefore, only low-income households should be chosen for the PoA.	Written statement from SREO after choosing the households for the PoA.
6.6	No recovery or combustion equipment is transferred from or to other activities	Leakage due to replacement of equipment should be avoided. The transferring of an existing digester from one activity to another is technically not feasible as the digesters are built of bricks and concrete.	Written statement on household advice by the technology implementer (SREO).
7	Each of the independent subsystems (the digesters and biogas stoves) is no larger than 1% of the small-scale thresholds defined by the methodologies applied (600 tCO _{2e} emission reduction from methane avoidance, 150 kW thermal installed capacity of the stoves).	<p>This criterion is applied to discuss whether the CPAs are a de-bundled component of a large scale CDM project.</p> <p>To check the thermal capacity, a biogas stove test report will provide the stove capacity. To emission reductions calculated using the formulas derived in Appendix 4 will be compared to the limit of 600</p>	<ul style="list-style-type: none"> • CPA-DD • Thermal capacity: <ul style="list-style-type: none"> ○ Biogas stove test report • Methane avoidance: <ul style="list-style-type: none"> ○ Baseline survey <p>ER calculation</p>

No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporti ng evidence for inclusion
		tCO ₂ e. According to the analysis carried out in section B, this criterion is automatically fulfilled, if no household raises more than 2,060 pigs at the same time (which is far beyond the technical capacity of household biogas digesters). This will be demonstrated using a representative survey.	
8	The proposed project and the new CPA do not lead to a diversion of official development assistance (ODA).	Avoidance of CDM leading to a diversion of official development assistance.	Written letters to state that neither the CDM development process, nor the sources of any applicable national biogas subsidy are funded by ODA.
9	The CPA implements a monitoring plant that is in line with the monitoring plan described in the PoA-DD (section I.7.2)	The monitoring plan of each CPA should be in line with the monitoring plan validated by the DOE and registered with the PoA.	<ul style="list-style-type: none"> PoA-DD CPA-DD
10	The starting date of the CPA is determined and not prior to the Global Stakeholder Consultation of the PoA.		
10.1	The start date of the CPA can be determined with suitable evidence.	Requirement of EB 93, Annex 7 (CDM project standard for programmes of activities)	City and County REO household list with all digester construction dates.
10.2	The start date of the CPA is not before the date of public web hosting of the PoA documentation (28/10/2010).	Requirement of EB 93, Annex 7 (CDM project standard for programmes of activities)	City and County REO household list with all digester construction dates.
11	The end date of the CPA does not exceed the PoA end date.	The CPAs will automatically be terminated when the PoA reached the end of its end date.	CPA-DD
12	The CPA meets the additionality criteria relevant for Type I.		
12.1	The total thermal capacity installed at all households of	A test record of the typical biogas stoves will be provided	<ul style="list-style-type: none"> Test record of implemented stoves

No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion
	the CPA does not exceed 15 MW _{th} .	as evidence during the inclusion. The number of households should not exceed the maximum capacity of 15 MW _{th} divided by the capacity of one stove.	CPA household list
12.2	The thermal capacity of a single stove does not exceed 4,500 kW _{th} .	Requirement of the <i>Guidelines for demonstrating additionality of microscale project activities</i> .	<ul style="list-style-type: none"> • Test record of implemented stoves
12.3	The users of the subsystems will be households.	Requirement of the <i>Guidelines for demonstrating additionality of microscale project activities</i> .	CPA household list
13	The CPA meets the additionality criteria relevant for Type III.	Requirement of the <i>Guidelines for demonstrating additionality of microscale project activities</i> .	
13.1	The total annual emission reduction from methane avoidance (type II activity) aimed by the CPA does not exceed 20 ktCO ₂ e in any year of the crediting period.	Requirement of the <i>Guidelines for demonstrating additionality of microscale project activities</i> .	<ul style="list-style-type: none"> • CPA-DD • Baseline survey
13.2	The annual emission reduction from methane avoidance (type III activity) of one single household does not exceed 600 tCO ₂ e.	To emission reductions calculated using the formulas derived in Appendix 4 will be compared to the limit of 600 tCO ₂ e.	<ul style="list-style-type: none"> • CPA-DD • Baseline survey
13.3	The users of the subsystems will be households.	Requirement of the <i>Guidelines for demonstrating additionality of microscale project activities</i> .	CPA household list
14	All CPA specific input parameters that are determined by sampling have been determined by a survey that is based on the validated sampling plan and fulfils the minimum confidence/error of 95/10 for surveys combining several CPAs or 90/10 for surveys that cover only single CPAs.	The data quality of the sampling survey should meet the minimum requirements.	Statistical survey analysis.

SECTION C. DEMONSTRATION OF ADDITIONALITY

>>

The following shall be demonstrated here:

- (i) The proposed PoA is a voluntary coordinated action;

Currently, different laws and policies in China including The Agricultural Law (2003), Energy Conservation Law (2007), Renewable Energy Law (2004) and the 2006-2010 Rural Energy Development Plan, promote the utilization of renewable resources including biogas. However, the implementation of all the above-mentioned laws and policies in which biogas construction in rural areas is involved, is based on subsidized voluntary measures by the farmers. There is no mandatory regulation in China or Sichuan Province that requires the change of current manure management systems or cooking methods for rural households. Additionally, the PoA requires individual households to take voluntary action to participate in project activities. The proposed PoA invites eligible farm households to participate in the programme and to benefit from all the advantages technical services offered by the activity. Therefore, the proposed PoA is a completely voluntary coordinated action.

Furthermore, the C/ME Chengdu Oasis is a private company that voluntarily engages in the promotion of household biogas systems in Sichuan.

- (ii) If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA;

As the coordination of the proposed PoA and the management of the two benefits for the rural households (financial support and technical service financed by the CDM) is a voluntary action that is not required by any national or provincial law or regulation, it will not be implemented in the absence of the CDM. By allocating a share⁵ of the achieved carbon revenues for management purposes, the CDM provides the financial capacity to manage the proposed PoA and allows its implementation.

- (iii) If the PoA is implementing a mandatory policy/regulation, this would/is not enforced;

Not applicable. The proposed PoA is not implementing a mandatory policy/regulation.

- (iv) If mandatory a policy/regulation is enforced, the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation.

Not applicable. No mandatory policies and/or regulations are being enforced by the proposed PoA.

SECTION D. DURATION OF POA

⁵Evidence: Contract between the C/ME and the Sichuan Rural Energy Office.

D.1. Date of first submission of PoA to Gold Standard

>>

07/06/2012, date of PoA Design Consultation report submission to GS

D.2. Duration of the PoA

>>

28 years

TEMPLATE

SECTION E. SAFEGUARDING PRINCIPLES ASSESSMENT

E.1. Justification for Safeguarding Principles Assessment at PoA level

>>

N/A. Safeguarding principles assessment is carried out at CPA level. Regarding nine safeguarding principles, incl. human rights, health working conditions, land tenure, emissions, water, soil, release of pollutants, etc, the purpose is to identify potential risks and adverse outcomes of their activities; and to adopt a mitigation strategy to avoid or minimize identified risks, as per the Safeguarding Principles Requirements (version 1.2). Therefore, the assessments refer to the detailed project activities under each CPA, instead of the Programme framework. Therefore, it is more appropriate to conduct safeguarding principles assessments at CPA level

E.2. Assessment of safeguarding principles, if undertaken at PoA level

>>

N/A. Safeguarding principles assessment is carried out at CPA level.

Formatted: Left: 2 cm, Right: 2 cm, Top: 2.44 cm, Bottom: 1.8 cm, Width: 20.99 cm, Height: 29.7 cm

Formatted: Line spacing: single

Formatted: Font: Verdana, Complex Script
Font: 12 pt

TEMPLATE

SECTION F. OUTCOME OF STAKEHOLDER CONSULTATIONS

F.1. Justification for stakeholder consultation at PoA Level only

>>

Stakeholder consultation meetings on CPAs level have been carried out on 24-26/07/2012 in line with the Gold Standard requirements. All relevant stakeholders, incl. governments policy makers, agricultural bureau, national DNA, rural energy offices, NGOs, GS NGOs supporters, households, and other relevant stakeholders have been invited for comments on the PoA.

All elements of the PoA are not changed for the crediting period renewal of the PoA, incl. but not limited to, the design of PoA is not changed; the implementation framework of the PoA is not changed, C/ME and CPA implementer and monitoring plan are not changed; the technology used is not changed; The PoA targets small household farmers, each with the same habit of pig raising and the same method of animal waste disposal and had coal consumption for cooking without digesters, etc.

In addition, all relevant stakeholders, incl. government authorities, rural energy offices, NGOs, households, etc are provided access to provide continuous input/Grievance Mechanism during the implementation of the PoA, incl. comment book, telephone, email access, etc.

Therefore, it is justified that the stakeholder consultation on POA level only is sufficient.

For POA renewal, stakeholder consultation was carried out at PoA level via electronic questionnaire. Physical meeting is not feasible due to COVID issue. All relevant stakeholders, incl. governments policy makers, agricultural bureau, national DNA, rural energy offices, NGOs, GS NGOs supporters, and other relevant stakeholders have been invited for comments on the PoA.

The provincial and City governments and authorities, incl. agriculture bureau, rural energy offices are most relevant to the design of the programme. They are invited by telephone. All the stakeholders from these departments received the questionnaire and were encouraged to provide their inputs on the programme.

As the designated national authorities of CDM projects in China, Department of Climate Change, Ministry of Ecology and Environment of the People's Republic of China, was invited particularly via email attached non-technical summary of the

Formatted: Font: Verdana, Font color: Auto, Complex Script Font: 12 pt, English (UK)

Formatted: Font color: Auto, Complex Script Font: 12 pt, English (UK)

Formatted: Font: Verdana, Font color: Auto, Complex Script Font: 12 pt, English (UK)

Formatted: Font: Verdana, Font color: Auto, Complex Script Font: 12 pt, English (UK)

Formatted: Font: Verdana, Font color: Auto, Complex Script Font: 12 pt, English (UK)

Formatted: Normal, Indent: Before: 0 cm

programme. Local GS experts, GS NGOs supporters and local NGOs were invited to fill in the electronic questionnaire via email attached non-technical summary of the programme.

In the invitation to these organizations on 17/11/2020, the contact information (contact person, phone and email) was included if they have any questions on the programme.

F.2. Summary of stakeholder mitigation measures at POA Level

>>

In the 30 questionnaires collected, all stakeholders expressed their support to the POA. More than 90% of stakeholders know biogas and expressed the current environment issues of rural areas, e.g. air pollution due to coal consumption, odour due to waste management, etc. 100% of questionnaires show that the construction and implementation of digesters will benefit the local community, e.g. reduce coal consumption, reduce air pollution, provide organic fertilizer, etc. [Some stakeholders provided suggestion of increasing project lifetime, obtaining revenue of credits, and providing more benefits to households.](#)

No negative comments were received. 100% of stakeholders fully support the POA.

F.3. Final Continuous Input / Grievance Mechanism at POA Level

>>

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.
Continuous Input / Grievance Expression Process Book (mandatory)	Comment book is available at the reception room of each involved local rural energy office. All stakeholders have access to provide feedback on comment books. The contact information of Sichuan Rural energy office (Contact info: Song Yumin, Sichuan rural energy office, 028- 85534729; scnnjnjp@163.com) is listed on the first page of the comment book for each local office
GS Contact (mandatory)	help@goldstandard.org
Other	Telephone access: Stakeholders can also provide comments via phone. The telephone number of Sichuan Rural energy office (Contact info: Song Yumin, Sichuan rural energy office, 028- 85534729) is provided to contact. Internet/email access: Email address of Sichuan Rural energy office is provided as well for stakeholders to provide comments in the internet. Contact info: Song Yumin, Sichuan rural energy office, scnnjnjp@163.com

APPENDIX 1 - CONTACT INFORMATION OF COORDINATING/MANAGING ENTITY AND RESPONSIBLE PERSON(S)/ ENTITY(IES)

CME and/or responsible person/ entity	<input checked="" type="checkbox"/> CME <input type="checkbox"/> Responsible person/ entity for application of the selected methodology(ies) and, where applicable, the selected standardized baseline(s) to the PoA
Organization	Chengdu Oasis Science & Technology Co., Ltd.
Street/P.O. Box	Renmin South Road, Section 4, No. 27 (Sun Dynasty International)
Building	Building 2, Entrance 1, 1841
City	Chengdu
State/Region	Sichuan Province
Postcode	610041
Country	P .R. China
Telephone	+86 10 6468 8669
E-mail	hytpmc@gmail.com
Website	
Contact person	Hai WANG
Title	CEO
Salutation	
Last name	WANG
Middle name	

CME and/or responsible person/ entity	<input type="checkbox"/> CME <input checked="" type="checkbox"/> Responsible person/ entity for application of the selected methodology(ies) and, where applicable, the selected standardized baseline(s) to the PoA
Organization	UPM Umwelt-Projekt-Management GmbH
Street/P.O. Box	Lamontstrasse 11
Building	
City	Munich
State/Region	
Postcode	81679
Country	Germany
Telephone	+49 89 1222197 - 50
E-mail	mdilger@upm-cdm.eu
Website	www.upm-cdm.eu
Contact person	Martin Dilger
Title	Managing Director
Salutation	
Last name	Dilger
Middle name	

Revision History

Version	Date	Remarks
1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Clarification on POA level LSC and Safeguard Principles Assessment Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption

Page 7: [1] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Bold, Font color: Custom Color(RGB(77,77,76))

Page 7: [2] Formatted	Microsoft Office User	1/22/21 3:12:00 PM
------------------------------	------------------------------	---------------------------

Centered

Page 7: [3] Formatted Table	Microsoft Office User	1/22/21 3:13:00 PM
------------------------------------	------------------------------	---------------------------

Formatted Table

Page 7: [4] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [4] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [5] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial, Bold, Font color: Custom Color(RGB(77,77,76))

Page 7: [5] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial, Bold, Font color: Custom Color(RGB(77,77,76))

Page 7: [6] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [7] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [8] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [9] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [10] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [11] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [12] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [13] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [14] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [15] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [16] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [17] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [18] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [19] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [20] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [21] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [22] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [23] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [24] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [25] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [26] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [27] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [28] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [29] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [30] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [31] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [32] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [33] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [34] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [35] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [36] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [37] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [38] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [39] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [40] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [41] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [42] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [43] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [44] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [45] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [46] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [47] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [48] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [49] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [50] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [51] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [52] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [53] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [54] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [55] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [56] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [57] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [58] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [59] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [60] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [61] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [62] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [63] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [64] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [65] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [66] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [67] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [68] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [69] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [70] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [71] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 7: [72] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [73] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [74] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [75] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [76] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [77] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [78] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [79] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [80] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Bold, Font color: Custom Color(77,77,76))

Page 7: [81] Formatted **Microsoft Office User** **1/22/21 3:12:00 PM**

Centered

Page 7: [82] Formatted Table **Microsoft Office User** **1/22/21 3:13:00 PM**

Formatted Table

Page 7: [83] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [83] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [84] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial, Bold, Font color: Custom Color(77,77,76))

Page 7: [84] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial, Bold, Font color: Custom Color(77,77,76))

Page 8: [85] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [86] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [87] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [88] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [89] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [90] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [91] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [92] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [93] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [94] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [95] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [96] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [97] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [98] Formatted	Microsoft Office User	1/22/21 3:14:00 PM
-------------------------------	------------------------------	---------------------------

Font: Arial

Page 8: [99] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [100] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [101] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [102] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [103] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [104] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [105] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [106] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [107] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [108] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [109] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [110] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [111] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [112] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [113] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [114] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [115] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [116] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [117] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [118] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [119] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [120] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [121] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [122] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [123] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [124] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [125] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [126] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [127] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [128] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [129] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [130] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [131] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [132] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [133] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [134] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [135] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [136] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [137] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [138] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [139] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [140] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [141] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [142] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [143] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [144] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [145] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [146] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [147] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [148] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [149] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 8: [150] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [151] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Bold, Font color: Custom Color(RGB(77,77,76))

Page 7: [152] Formatted **Microsoft Office User** **1/22/21 3:12:00 PM**

Centered

Page 7: [153] Formatted Table **Microsoft Office User** **1/22/21 3:13:00 PM**

Formatted Table

Page 7: [154] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 7: [155] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Bold, Font color: Custom Color(RGB(77,77,76))

Page 7: [156] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial, Bold, Font color: Custom Color(RGB(77,77,76))

Page 7: [157] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Bold, Font color: Custom Color(RGB(77,77,76))

Page 9: [158] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [159] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [160] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [161] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [162] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [163] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [164] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [165] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [166] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [167] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [168] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [169] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [170] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [171] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [172] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [173] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [174] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [175] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [176] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [177] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [178] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [179] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [180] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [181] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [182] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [183] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [184] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [185] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [186] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [187] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [188] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [189] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [190] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [191] Formatted **Microsoft Office User** **1/22/21 3:14:00 PM**

Font: Arial

Page 9: [192] Formatted **Microsoft Office User** **1/22/21 3:13:00 PM**

Centered

Page 9: [193] Formatted **Microsoft Office User** **1/22/21 3:13:00 PM**

English (UK)