

### JCM Validation Report Form

#### A. Summary of validation

##### A.1. General Information

Title of the project	Centralization of heat supply system by installation of high-efficiency heat only boilers in Bornuur soum
Reference number	MN002
Third-party entity (TPE)	National Renewable Energy Centre (NREC)
Project participant contracting the TPE	SUURI KEIKAKU CO.,LTD of Japan
Date of completion of this report	29 <sup>th</sup> June, 2015

##### A.2 Conclusion of validation


Overall validation opinion	<input checked="" type="checkbox"/> Positive <input type="checkbox"/> Negative
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##### A.3. Overview of final validation conclusion

*Only when all of the checkboxes are checked, overall validation opinion is positive.*

Item	Validation requirements	No CAR or CL remaining
Project design document form	The TPE determines whether the PDD was completed using the latest version of the PDD forms appropriate to the type of project and drafted in line with the Guidelines for Developing the Joint Crediting Mechanism (JCM) Project Design Document, Monitoring Plan and Monitoring Report.	<input checked="" type="checkbox"/>
Project description	The description of the proposed JCM project in the PDD is accurate, complete, and provides comprehension of the proposed JCM project.	<input checked="" type="checkbox"/>
Application of approved JCM methodology (ies)	The project is eligible for applying applied methodology and that the applied version is valid at the time of submission of the proposed JCM project for validation.	<input checked="" type="checkbox"/>
Emission sources and calculation of emission reductions	All relevant GHG emission sources covered in the methodology are addressed for the purpose of calculating project emissions and reference emissions for the proposed JCM project.	<input checked="" type="checkbox"/>
	The values for project specific parameters to be fixed <i>ex ante</i> listed in the Monitoring Plan Sheet are appropriate, if applicable.	<input checked="" type="checkbox"/>
Environmental impact assessment	The project participants conducted an environmental impact assessment, if required by Mongolia, in line with Mongolia's procedures.	<input checked="" type="checkbox"/>
Local stakeholder consultation	The project participants have completed a local stakeholder consultation process and that due steps were taken to engage stakeholders and solicit comments for the proposed project.	<input checked="" type="checkbox"/>
Monitoring	The description of the Monitoring Plan (Monitoring Plan	<input checked="" type="checkbox"/>

Item	Validation requirements	No CAR or CL remaining
	Sheet and Monitoring Structure Sheet) is based on the approved methodology and/or Guidelines for Developing the Joint Crediting Mechanism (JCM) Project Design Document, Monitoring Plan, and Monitoring Report. The monitoring points for measurement are appropriate, as well as whether the types of equipment to be installed are appropriate if necessary.	
Public inputs	All inputs on the PDD of the proposed JCM project submitted in line with the Project Cycle Procedure are taken into due account by the project participants.	<input checked="" type="checkbox"/>
Modalities of communications	The corporate identity of all project participants and a focal point, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories are included in the MoC.	<input checked="" type="checkbox"/>
	The MoC has been correctly completed and duly authorized.	<input checked="" type="checkbox"/>
Avoidance of double registration	The proposed JCM project is not registered under other international climate mitigation mechanisms.	<input checked="" type="checkbox"/>
Start of operation	The start of the operating date of the proposed JCM project does not predate January 1, 2013.	<input checked="" type="checkbox"/>

Authorised signatory:	Mr. <input checked="" type="checkbox"/>	Ms. <input type="checkbox"/>
Last name: Baldorj	First name: Altangerel	
Title: Director		
Specimen signature:		Date: 29/06/2015



## B. Validation team and other experts

	Name	Company	Function*	Scheme competence*	Technical competence*	On-site visit
Mr. <input type="checkbox"/> Ms. <input checked="" type="checkbox"/>	M.Natsagbadam	NREC	Team leader	<input checked="" type="checkbox"/>	Sectoral scope 1,2,3	<input checked="" type="checkbox"/>
Mr. <input type="checkbox"/> Ms. <input checked="" type="checkbox"/>	T.Burte	NREC	Team member	<input checked="" type="checkbox"/>	Sectoral scope 1,2,3	<input checked="" type="checkbox"/>
Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>	O.Bavuudorj	NREC	Technical reviewer	<input checked="" type="checkbox"/>	Sectoral scope 1,2,3	<input type="checkbox"/>
Mr. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/>	J.Landannorov	Mon-Energy Consult Co.,Ltd	Technical expert	<input checked="" type="checkbox"/>	Sectoral scope 1,2,3	<input type="checkbox"/>

Please specify the following for each item.

- \* *Function: Indicate the role of the personnel in the validation activity such as team leader, team member, technical expert, or internal reviewer.*
- \* *Scheme competence: Check the boxes if the personnel have sufficient knowledge on the JCM.*
- \* *Technical competence: Indicate if the personnel have sufficient technical competence related to the project under validation.*

## C. Means of validation, findings, and conclusion based on reporting requirements

### C.1. Project design document form

#### <Means of validation>

NREC assessed whether the PDD was completed using the latest version of the PDD forms appropriate to the type of project and drafted in line with the PDD and Monitoring Guidelines through Document review and Follow-up actions (on-site visit and interviews) with Evidences.

#### <Findings>

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

No CARs, CLs and FARs have been raised by NREC.

#### <Conclusion based on reporting requirements>

*Please state conclusion based on reporting requirements.*

NREC confirmed that the PDD was completed using the latest version of the PDD forms appropriate to the type of project and drafted in line with the PDD and Monitoring Guidelines.



## C.2. Project description

**<Means of validation>**

NREC assessed whether the description of the proposed JCM project in the PDD was accurate, complete, and provided an understanding of the proposed JCM project through Document review and Follow-up actions (on-site visit and interviews) with Evidence.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

CL1: There was not given information about reference HOB which is replaced with the new, high efficiency HOB.

CL1 was closed out because described the information about the type of reference has been added to the PDD A.2 with Ref.01.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that the description of the proposed JCM project in the PDD was accurate, complete, and provided an understanding of the proposed JCM project.

## C.3. Application of approved methodology(ies)

**<Means of validation>**

NREC assessed whether the project was eligible for applying selected methodology and that the applied version was valid at the time of submission of the proposed JCM project for validation through Document review and Follow-up actions (on-site visit and interviews) with Evidence.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

CL02: There was no Evidence related to the Criteion1 to 6.

CL02 was closed out because the PP has submitted the Ref.01 to 06.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that the project was eligible for applying selected methodology and that the applied version was valid at the time of submission of the proposed JCM project for validation.

## C.4. Emission sources and calculation of emission reductions

**<Means of validation>**

NREC assessed whether all relevant GHG emission sources covered in the methodology were addressed for the purpose of calculating project emissions and reference emissions for the proposed JCM project and whether the values for project specific parameters to be fixed ex ante listed in the Monitoring Plan Sheet were appropriate through Document review and Follow-up actions (on-site visit and interviews) with Evidence.



**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

No CARs, CLs and FARs have been raised by NREC.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that all relevant GHG emission sources covered in the methodology were addressed for the purpose of calculating project emissions and reference emissions for the proposed JCM project and that the values for project specific parameters to be fixed ex ante listed in the Monitoring Plan Sheet were appropriate through Document review and Follow-up actions (on-site visit and interviews) with Ref 06 and 07.

## C.5. Environmental impact assessment

**<Means of validation>**

NREC assessed whether the project participants conducted an environmental impact assessment in line with Mongolia's procedures through Document review and Follow-up actions (on-site visit and interviews) with Evidence.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

CL03: There was no Evidences regarding the result of EIA.

CL03 was closed out because the PP has submitted the Ref.01.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that the project participants conducted an environmental impact assessment in line with Mongolia's procedures.

## C.6. Local stakeholder consultation

**<Means of validation>**

NREC assessed whether the project participants have completed a local stakeholder consultation process and whether due steps were taken to engage stakeholders and solicit comments for the proposed project through Document review and Follow-up actions (on-site visit and interviews) with Evidence.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

CL04: The description of the notice and the results regarding the Local stakeholder consultation were not enough to explain the compliance with the requirements.

CL04 was closed out because the PP described the information about the notice and the results regarding the Local stakeholder consultation have been added to the PDD E.1 and E.2.



**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that the project participants have completed a local stakeholder consultation process and that due steps were taken to engage stakeholders and solicit comments for the proposed project.

## C.7. Monitoring

**<Means of validation>**

NREC assessed whether the description of the monitoring plan (Monitoring Plan Sheet and Monitoring Structure Sheet) is based on the approved methodology and PDD and Monitoring Guidelines, and whether the monitoring points for measurement are appropriate, as well as whether the types of equipment to be installed are appropriate through Document review and Follow-up actions (on-site visit and interviews) with Evidence.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

CL05: The information regarding the emission sources, monitoring points and data collecting procedure were not enough to explain the compliance with the requirements.

CL05 was closed out because the PP described the information regarding the emission sources, monitoring points and data collecting procedure have been added to the PDD C.2 and Monitoring Plan Sheet Table1 with Ref.06 and 07.

CL06 - The description regarding QA/QC in the Measurement methods and procedures of Monitoring Plan Sheet Table1 was not enough to explain the compliance with the requirements.

CL06 was closed out because the PP described the information regarding QA/QC in the Measurement methods and procedures of Monitoring Plan Sheet Table1 have been added to the Monitoring Plan Sheet Table1.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that the description of the monitoring plan (Monitoring Plan Sheet and Monitoring Structure Sheet) is based on the approved methodology and PDD and Monitoring Guidelines, and that the monitoring points for measurement are appropriate, as well as the types of equipment to be installed are appropriate.

## C.8. Modalities of Communication

**<Means of validation>**

NREC validated the authenticity regarding identity of all project participants and a focal point



included in the MoC, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories and assessed whether the MoC has been correctly completed and duly authorized through Document review and Follow-up actions (on-site visit and interviews) with Evidence.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

No CARs, CLs and FARs have been raised by NREC.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed the authenticity regarding identity of all project participants and a focal point included in the MoC, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories and that the MoC has been correctly completed and duly authorized with other contract documents.

C.9. Avoidance of double registration

**<Means of validation>**

NREC assessed whether the proposed JCM project is not registered under other international climate mitigation mechanisms through document review and web-site review of Clean Development Mechanism (CDM), Verified Carbon Standard Association (VCSA), Gold Standard Foundation (GSF).

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

No CARs, CLs and FARs have been raised by NREC.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed that the proposed JCM project is not registered under other international climate mitigation mechanisms.

C.10. Start of operation

**<Means of validation>**

NREC assessed the start of the operating date of the proposed JCM project and whether the date does not predate January 1, 2013.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

CL07: There was no Evidences regarding the start of the operating date of the proposed JCM project and whether the date does not predate January 1, 2013.

CL07 was closed out because the PP submitted the contract documents regarding Heat supply to the customers which contains the starting date of the Heat supply.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

NREC confirmed the start of the operating date of the proposed JCM project and that the date does not predate January 1, 2013.

C.11. Other issues

**<Means of validation>**

Not applicable.

**<Findings>**

*Please state if CARs, CLs, or FARs are raised, and how they are resolved.*

Not applicable.

**<Conclusion based on reporting requirements>**

*Please state conclusion based on reporting requirements.*

Not applicable.

## D. Information on public inputs

### D.1. Summary of public inputs

The draft PDD have been made publicly available from 28 May to 26 June 2015 through the JCM website (<https://www.jcm.go.jp/mn-jp/projects/6>).

Result: There was no public inputs.

### D.2. Summary of how inputs received have been taken into account by the project participants

Not applicable.

## E. List of interviewees and documents received

### E.1. List of interviewees



1. 17th June, 2015 10:00~12:30; at the NREC's Office, Mr. Fumihiko Kuwahara Job Manager of SUURI-KEIKAKU CO.,LTD.
2. 12th June, 2015 9:00~10:30; at the Office of the Mongolian Agency for Standardization and Metrology, Mr. A.Ganbold, Engineer of the Verification Division, Mongolian Agency for Standardization and Metrology
3. 15th June, 2015 11:00~12:00; at the Governor's Office of Bornuur soum, Mr.V.Batbold, Deputy Governor of Bornuur soum, Tuv aimag,
4. 15th June, 2015 12:00~12:30; at the Governor's Office of Bornuur soum, Ms.I .Enkhjargal, senior accountant of Bornuur soum, Tuv aimag,
5. 15th June, 2015 10:00~11:00; at the HOB building, Mr. D. Batbayar, HOB Facility Manager of Bornuur soum,
7. 23th June, 2015, 10.00~10.30 AM; at the Ministry of Energy, Mr. Batdondog, Chairman of the Heat Department, Ministry of Energy.

#### E.2. List of documents received

1. PDD version 01.0, 26/05/2015
2. PDD version 02.0, 19/06/2015
3. PDD version 03.0, 27/06/2015
4. Monitoring Plan Sheet and Monitoring Structure Sheet version 01.0, 26/05/2015
5. Monitoring Plan Sheet and Monitoring Structure Sheet version 02.0, 19/06/2015
6. Monitoring Plan Sheet and Monitoring Structure Sheet version 03.0 27/06/2015
7. Ref.01; Results of Bornuur Environment Impact Assessment.pdf
8. Ref.02; [confidential] Maintenance Manual\_EKOEFEKT.pdf
9. Ref.03; [confidential] Improvement Manual of HOB from SUR\_MN.pdf
10. Ref.04; [confidential] HOB Operation and Maintenance Manual.pdf
11. Rep.05; Bornuur soum old Boiler.pdf
12. Ref.06; Specifications of HOBs.pdf
13. Ref.07; 2012FS\_Monitoring Results of 79th school HOB.pdf
14. Calibration Certificate of Heatmeter -Multical 602C, issued by Kamstrup A/S, Czech Republic, in 2015-02-19,
15. Letter of the Mongolian Agency of Standardization and Metrology, on Contract for recognition of the producer's initial verification result of the Heat meter, conducted by

- “Kamstrup” laboratory ,
16. Test result of the boiler Ekoefekt 600, carried out by the Boiler Research and Testing Centre of the Mongolian University of Sciences and Technology,
  17. Test result of air pollutant component’s content of the smoke of boiler Carborobot C-300 and Ekoefekt 600, issued by the Agency of Meteorology and Environmental Monitoring
  18. Contract for EIA of the Centralized HOB Facility Constructions in Tuv aimag,” between ANU Service Co.,Ltd and Tsagaan Uulin Orgil Co.,Ltd, 19/18/2013,
  19. Contract for Heat Supply between ANU Service Co.,Ltd and Bornuur soum’s Governor office, Ulaanbaatar, 15th Sept,2014
  20. Contract for Coal transportation between ANU Service Co.,Ltd and Bornuur soum’s Governor office, Ulaanbaatar, 21th Sept,2013
  21. Contract for Heat Supply between ANU Service Co.,Ltd and Bornuur soum’s School, Ulaanbaatar, 22th Sept,2014
  22. Confirmation letter of ANU Service Co.,Ltd, on MoC, which included specimen signatures and copy of ID cards of authorized signatories of PP- ANU Service Co.,Ltd

Other documents related to the report,

23. Protocol of On-site visit
24. Explanation about validation process
25. Minute of interview with Mr. A.Ganbold, Engineer of the Verification Division, Mongolian Agency for Standardization and Metrology
26. Minute of interview with Deputy Governor of Bornuur soum, Tuv aimag, V.Batbold
27. Minute Minute of interview with Ms.I. Elkhjargal Accountant of Bornuur soum, Tuv aimag,
28. Minute of interview with Mr. D. Batbayar, HOB Facility Manager of Bornuur soum,
29. Minute of interview with Mr. Batdondog, Chairman of the Heat Department, Ministry of Energy,



**Annex Certificates or curricula vitae of TPE's validation team members, technical experts and internal technical reviewers**

*Please attach certificates or curricula vitae of TPE's validation team members, technical experts and internal technical reviewers.*



National Renewable Energy Centre of Mongolia

Certificate of Appointment

Title of Project: Centralization of heat supply system by installation of high-efficiency heat only boilers in Bornuur soum

We hereby certify that the following personnel have engaged in the validation process that has fully satisfied the competence requirements of the validation of the JCM project.

<b>Name of Person</b>	<b>Assigned Roles</b>
Natsagbadam Myatraaz	Team Leader
Burte Tumenjargal	Team Member
Bavuudorj Ovgor	Technical Reviewer
Landannorov Jigmed	Technical Expert

Altangerel Baldorj

Director, National Renewable Energy Centre, Mongolia

01.06.2015