



VALIDATION REPORT

CLEAN ENERGY LLC

SALKHIT WIND FARM

Report No: 8000352573 - 07/102

Date: 2012-03-28

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Validation Report:	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
	8000352573 - 07/102	0	2012-03-28	-
Project:	Title:	Initial PDD Version:	Final PDD Version	
	Salkhit Wind Farm	2007-08-20	2012-02-21	
Client:	Clean Energy LLC	Client ref:	Sukhbaatar Tsegmid	
Project Participant(s):	Host Party:	Other involved parties:		
	Mongolia	-		
Applied methodology/ies:	Title:	No.:	Scope / TA:	
	<i>Consolidated baseline methodology for grid-connected electricity generation from renewable sources</i>	ACM0002 Ver. 12.1.0	1 / 1.2	
Validation team / Technical Review and Final Approval	Validation Team:	Technical review:	Final approval:	
	Martin Li Yong Katja Beyer Saalmann Jun	Christina Stöhr Jochen Schubert	Ingo Klein	
Expected Emission reductions: [t CO_{2e}]	Expected emission reductions over the first crediting period:	(Expected) starting date of the crediting period:		
	1,251,446 t CO _{2e}	2012-10-01		
Confidential content:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
Summary of Validation Opinion:	<input checked="" type="checkbox"/> Positive validation opinion		<input type="checkbox"/> Negative validation opinion	
<p>Clean Energy LLC has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: "Salkhit Wind Farm" with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board.</p> <p>In the course of the validation 17 Corrective Action Requests (CARs) were raised and successfully closed.</p> <p>The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.</p> <p>In detail the conclusions can be summarised as follows:</p> <ul style="list-style-type: none"> - The project is in line with all relevant host country criteria (Mongolia) and all relevant UNFCCC requirements for CDM. Project activity approval has been obtained from DNA of Mongolia vide the Letter of Approval (LOA) dated 2011-11-11. The proposed project is of unilateral kind and hence no LOA from Annex 1 country is available. - The project additionality is sufficiently justified in the PDD. - The monitoring plan is transparent and adequate. - The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 1,251,446 tCO_{2e} are most likely to be achieved within the (1st renewable) crediting period. <p>The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.</p>				
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Abbreviations

BAU	Business as usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
DNA	Designated National Authority
EB	CDM Executive Board
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
PDD	Project Design Document
QC/QA	Quality control/Quality assurance
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 OBJECTIVE / SCOPE

The purpose of a validation is to have an independent third party assess the project design. In particular the project's baseline, the monitoring plan (MP), and the project's compliance with

- the requirements of Article 12 of the Kyoto Protocol;
- the CDM modalities and procedures as agreed in the Marrakech Accords under decision 3/CMP.1
- the annex to the decision;
- subsequent decisions made by COP/MOP & CDM Executive Board and
- other relevant rules, including the host country legislation and sustainability criteria

are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders on the quality of the project and its intended generation of certified emission reductions (CERs).

The validation scope is given as a thorough independent and objective assessment of the project design including especially: the correct application of the methodology, the project's baseline study, additionality justification, local stakeholder commenting process, environmental impacts and monitoring plan, which are included in the PDD and other relevant supporting documents, to ensure that the proposed CDM project activity meets all relevant and applicable CDM criteria.

The information included in the PDD and the supporting documents were reviewed against the requirements as set out by the UNFCCC. The validation team has, based on the requirements in the Validation and Verification Manual^{VVM}, carried out a full assessment of all evidences to assess the compliance of the project with the key areas as outlined in section V.E. and V.F. of the VVM (version 01.2, EB 55).

The validation is based on the information made available to TÜV NORD JI/CDM CP and on the contract conditions. TÜV NORD JI/CDM CP cannot be held liable by any entity for making its validation opinion based on any false or misleading information supplied to it during the course of validation.

The validation is not meant to provide any consulting to the project participants. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

2 GHG PROJECT DESCRIPTION

2.1 Project Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: Project Characteristics

Item	Data		
Project title	Salkhit Wind Farm		
Project size	<input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale		
Project Scope (according to UNFCCC sectoral scope numbers for CDM)	<input checked="" type="checkbox"/>	1	Energy Industries (renewable- /non-renewable sources)
	<input type="checkbox"/>	2	Energy distribution
	<input type="checkbox"/>	3	Energy demand
	<input type="checkbox"/>	4	Manufacturing industries
	<input type="checkbox"/>	5	Chemical industry
	<input type="checkbox"/>	6	Construction
	<input type="checkbox"/>	7	Transport
	<input type="checkbox"/>	8	Mining/Mineral production
	<input type="checkbox"/>	9	Metal production
	<input type="checkbox"/>	10	Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/>	11	Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/>	12	Solvents use
	<input type="checkbox"/>	13	Waste handling and disposal
	<input type="checkbox"/>	14	Afforestation and Reforestation
	<input type="checkbox"/>	15	Agriculture
Applied Methodology	ACM0002 Version 12.1.0		
Technical Area(s)	1.2: Renewables - Wind		
Crediting period	<input checked="" type="checkbox"/> Renewable Crediting Period (7 y) <input type="checkbox"/> Fixed Crediting Period (10 y)		
Start of crediting period	2012-10-01		

2.2 Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity (Table 2-2).

Table 2-2: Project Parties and project participants

Characteristic	Party	Project Participant
Host party	Mongolia	Clean Energy LLC

2.3 Project Location

The details of the project location are given in table 2-3:

Table 2-3: Project Location

No.	Project Location
Host Country	Mongolia
Region:	Tuv Aimag
Project location address:	Salkhit Mountain, Tsagduult and Shar Huviin Nuruu, approximately 70 km southeast of Ulaanbaatar
Latitude	Longitude
47°29'12.191"	107°9'20.652"
47°31'23.887"	107°6'50.008"
47°33'6.894"	107°4'32.148"
47°35'44.204"	107°8'53.200"
47°36'41.560"	107°10'45.020"
47°37'2.440"	107°10'48.860"
47°36'33.006"	107°12'34.170"
47°35'29.480"	107°15'17.090"
47°32'46.518"	107°17'25.532"
47°32'45.799"	107°17'20.265"
47°32'30.400"	107°17'29.000"

2.4 Technical Project Description

The proposed project is a newly installed wind farm which is connected to the Central Energy System of Mongolia. The turbines are not yet contracted. Hence, a definite description of the technology to be installed cannot be provided. However, based on the feasibility study the project will most likely supply 168.8 GWh per year to the grid. The expected installed capacity is 49.6 MW.

3 METHODOLOGY AND VALIDATION SEQUENCE

3.1 Validation Steps

The validation of the project consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the project design document (PDD)
- Desk review of the PDD and supporting documents
- Validation planning
- On-Site assessment
- Background investigation and follow-up interviews with personnel of the project developer and its contractors
- Draft validation reporting
- Resolution of corrective actions (if any)
- Final validation reporting
- Technical review
- Final approval of the validation

The sequence of the validation is given in the table 3.1 below:

Table 3.1: Validation sequence

Topic	Time
Assignment of validation	2007-05-24
Submission of PDD for global stakeholder commenting process	2007-08-23
On-site visit	-
Draft reporting finalised	2007-12-27
Final reporting finalised	2012-02-23
Technical review on final reporting finalised	2012-02-23

3.2 Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the validation can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.



3.3 Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities, a validation team, consisting of one team leader and 2 additional team members, as well as the Technical Review personnel were appointed. The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 3-2 below.

Table 3-2: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Host country Competence	Team Leading Competence	On-site Visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Martin Saalmann	TÜV NORD Cert GmbH	TL	SA	<input checked="" type="checkbox"/>	1.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Li Yong Jun	TÜV NORD China	TM ^{A)}	SA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Katja Beyer	TÜV NORD Cert GmbH	TM ^{A)}	LA	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Christina Stöhr	TÜV NORD Cert GmbH	TR ^{B)}	LA	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Jochen Schubert	TÜV NORD Cert GmbH	TR ^{B)}	SA	<input checked="" type="checkbox"/>	1.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Ingo Klein	TÜV NORD Cert GmbH	FA ^{B)}	SA	<input checked="" type="checkbox"/>	1.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

⁴⁾ As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical Experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects. In order to qualify further personnel the project team was accompanied by observers and/or trainees as indicated in the table above. They are usually not considered as team members.

Statements of competence for the above mentioned team members are enclosed in annex 6 of this report.

3.4 Consideration of Public Stakeholder Comments

Acc. to the modalities and procedures the draft PDD, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the validation activity commenced. Stakeholders have been invited to comment on the PDD within the 30 days public commenting period.

In case comments are received, they are taken into account during the validation process. The comments and the discussion of the same are documented in annex 5 of this report.

3.5 Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements each CDM project has to meet as well as project specific issues as applicable. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM project is expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol is described in Figure 1.

Validation Protocol Table A-1: Requirement checklist				
Checklist Item	Validation Team Comment	Reference	Draft Conclusion	Final Conclusion
<i>The checklist items in Table A-1 are linked to the various requirements the project should meet. The checklist is organised in various sections. Each section is then further sub-divided as per the requirements of the topic and the individual project activity.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the VVM shall be covered in this section.</i>	<i>Gives reference to the information source on which the assessment is based on</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.</i>	<i>In case a corrective action or a clarification the final assessment at the final validation stage is given.</i>

Figure 1: Validation protocol table

The completed validation protocol is enclosed in Annex 1 to this report.

3.6 Review of Documents

The published PDD and supporting background documents related to the project design and baseline were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

3.7 Follow-up Interviews

The validation team has carried out interviews in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for CDM.

Due to the fact that it is a Greenfield project a site visit was not carried out. All relevant project documentation has been provided as scanned versions.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 3-3.

Table 3-3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
--------------------------------	------------------



<p>Project proponent representatives Project consultant</p>	<ul style="list-style-type: none"> - Chronological description of the project activity with documents of key steps of the implementation. - Current status of plant design - Technical details of the project realization, project feasibility, designing, operational life time, monitoring of the project - Host Government Approval - Approval procedures and status - Monitoring and measurement equipment and system. - Financial aspects - Crediting period - Project activity starting date - CER allocation / ownership - Baseline study assumptions - Additionality - Sustainable development issues - Monitoring - Analysis of local stakeholder consultation - Roles & responsibilities of the project participants w.r.t. project management, monitoring and reporting - National Legislation - Editorial issues of the PDD
-----------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

A comprehensive list of all interviewed persons is part of section 7 'References'.

3.8 Project comparison

The validation team has compared the proposed CDM project activity with similar projects or technology that have similar or comparable characteristics and with similar projects in the host country in order to achieve additional information esp. regarding:

- Project technology
- Additionality issues
- Reasons for reviews, requests for reviews and rejections within the CDM registration process.

3.9 Resolution of Clarification and Corrective Action Requests

3.9.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,

- the requirements deemed relevant for validation of the project with certain characteristics have not been met or
- there is a risk that the project would not be registered by the UNFCCC or that emission reductions would not be able to be verified and certified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to project implementation should be reviewed during the first verification.

3.9.2 Draft Validation

After reviewing all relevant documents and taken all other relevant information into account, the validation team issues all findings in the course of a draft validation report and hands this report over to the project proponent in order to respond on the issues raised and to revise the project documentation accordingly.

3.9.3 Final Validation

The final validation starts after issuance of the proposed corrective action (CA) of the CARs, CLs and FARs by the project proponent. The project proponent has to reply on those and the requests are “closed out” by the validation team in case the response is assessed as sufficient. In case of raised FARs the project proponent has to respond on this, identifying the necessary actions to ensure that the topics raised in this finding are likely to be resolved at the latest during the first verification. The validation team has to assess whether the proposed action is adequate or not.

In case the findings from CARs and CLs cannot be resolved by the project proponent or the proposed action related to the FARs raised cannot be assessed as adequate, no positive validation opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in chapter 4.

3.10 Technical review

Before submission of the final validation report a technical review of the whole validation procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.11 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the complete validation will be carried out by a senior assessor located in the accredited premises of TÜV NORD.



Only after this step the request for registration can be started (in case of a positive validation opinion).

4 VALIDATION FINDINGS

In the following table the findings from the desk review of the published PDD, visits, interviews and supporting documents are summarised:

Table 4-1: Summary of CARs, CLs and FARs issued

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
General description of project activity (A) <ul style="list-style-type: none"> - Project specification - Technical project description - Participation - Contribution to sustainable development - PDD editorial aspects - Technology to be employed 	7	-	-
Project Baseline, Additionality and Monitoring Plan (B) <ul style="list-style-type: none"> - Application of the Methodology - Project Boundary - Baseline identification - Calculation of GHG emission reductions <ul style="list-style-type: none"> Project emissions Baseline emissions Leakage - Additionality determination - Monitoring Methodology - Monitoring Plan - Project management planning 	9	-	-
Duration of the Project / Crediting Period (C)	1	-	-
Environmental impacts (D)	-	-	-
Stakeholder Comments (E)	-	-	-
SUM	17	0	0

¹⁾ The letters in brackets refer to the validation protocol

The following tables include all raised CARs, CLs and FARs. For an in depth evaluation of all validation items it should be referred to the validation protocols (see Annex 1).

The findings of validation process are summarized in the tables below.



Finding	A1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The geographical boundaries are provided in PDD. However the unique identification of the project activity w.r.t. longitude and latitude has to be provided in the PDD section A-4.1.4.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Co-ordinates of the area added to PDD		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The coordinates are derived from the site layout plan included in the Annex 2^{SL} and from the site boundary map^{SB} included in Annex 4 of the wind yield assessment. The coordinates have been cross-checked with digital maps.</p> <p>TÜV NORD concludes that the coordinates provided in the PDD are correct.</p> <p>CAR is therefore closed.</p>		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements		

Finding	A1.1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	It has been observed that the project title in the LOA approval is "Salkhit Wind Park" which is a deviation to the PDD.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	PDD has been revised accordingly.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PDD has been checked and compared to the LOA. It is verified that the title in the PDD and LOA and MOC are consistent. The written approvals refer to the precise project title "Salkhit Wind Farm".</p> <p>CAR is therefore closed.</p>		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements		



Finding	A2		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The project is a unilateral project and hence Mongolia is the only party involved in the project activity.</p> <p>The project participant is: Newcom LLC</p> <p>However, the project participant(s) Party is to be explicitly stated, including if they are public or private. Cp PDD-G and section A.3. PDD.</p>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Project developer name has changed. Developer is private sector.		
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PDD has been revised providing a new project participating entity "Clean Energy LLC" which substitutes "Newcom LLC" as indicated in the published PDD. However, the LOA refers to "Newcom LLC". Hence, the PP is requested to further clarify why the PP has been changed and whether this has been done voluntarily and if the DNA has been informed. The information should be substantiated with documented evidence.</p> <p>CAR can therefore not be considered as closed out.</p>		
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Clean Energy LLC is a subsidiary of Newcom LLC, initially established in Dec 2004 to assist the company in assessing the wind measurement at the site and in assessing the feasibility of developing the project. Therefore, all contracts and documents were represented by the head company in the early stage (e.g. CDM consultancy contract of 2007 between CRM and Newcom) until 2009 when the company signed a shareholders agreement (SA) with EBRD (contract attached #1).</p> <p>Once the company raised a project development fund through the SA in Dec 2009 having done satisfactory project development preparation with few years of wind measurement and affirmation of its feasibility, it transferred all authority over the project to its daughter company - Clean Energy. The transfer of rights is evidenced in the SA and construction license and is a voluntary arrangement between the head and the daughter company.</p> <p>Currently, Clean Energy is a project company focused on 49.6 MW Salkhit Wind Farm Project (75% owned by Newcom and 25% by EBRD). Therefore, Newcom is not withdrawing from the project and it is not a change of the project proponent name, but rather a change in the internal management of the company on division of roles and responsibilities. Although Newcom is entitled as a Sponsor, it is still involved in the project development with Clean Energy and confirms its intention to carry out this role to the point where the Clean Energy is in a position to commence construction of the Project (detailed in Article IV of the SA, p.11).</p> <p>Since Dec 2009 all contracts and documents have been established under the name of Clean Energy in accordance</p>		



Finding	A2
	<p>with the SA (p.11, 4.01.b). For example, construction license obtained in March 2007 on the name of Newcom was newly obtained on 2 June 2011 under the name of Clean Energy (both licenses attached #2).</p> <p>Mongolian DNA has been informed about this and they informed us that if DOE and UNFCCC EB views that adoption of a new LOA is critical, then DNA can provide it. This is according to their Project Evaluation Procedure updated on 28 June 2011 (Mongolian version is available on DNA website: http://cdm-mongolia.com/index.php?option=com_content&view=frontpage&Itemid=25&lang=mn).</p> <p>If a new LOA under Clean Energy and voluntary withdrawal of Newcom is required despite above factors, we will provide them.</p>
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Ok, the explanation provided is conclusive. TÜV NORD is the opinion that a letter of voluntary withdrawal is not necessary. The PDD has been changed accordingly.</p> <p>The PP from Mongolia introduced in the PDD is Clean Energy LLC. Information regarding the project participants listed in section A3 and in Annex 1 of the PDD are internally consistent to each other. The LOA provided is clearly authorizing Clean Energy LLC as project participant. Hence, the change of the project participants' name is accepted.</p> <p>TÜV Nord has a direct contract with the PP, Clean Energy LLC. CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p><input type="checkbox"/> To be checked during the first periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p>

Finding	A3
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	More details, are required from project proponent on the technology adopted, its origin and its environmental soundness in PDD section A.4.3. Cp PDD G
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Turbines still to be contracted. The NRG tower is purely for ex-ante wind measurements investigation. This is therefore irrelevant within section A.4.3.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>As per information provided, the PP is still in the process of decision making. Wind turbine generators have not yet been contracted. Hence, the information provided in the section A.4.3. of the PDD is limited to what has been shown in the wind yield assessment. Currently 5 different manufacturers are under consideration:</p> <p>1. GE, rated capacity 1.6 MW, 31 WTGs, total capacity 49.6 MW^{WYA-GE/}</p>



Finding	A3
	<p>2. Siemens, rated capacity 2.3 MW, 21 WTGs, total capacity 48.3 MW^{/WYA-S/}</p> <p>3. Hyundai, rated capacity 1.65 MW, 30 WTGs, total capacity 49.5 MW^{/WYA/};</p> <p>4. Sinovel, rated capacity 1.5 MW, 33 WTGs, total capacity 49.5 MW^{/WYA/};</p> <p>5. Vestas, rated capacity 2 MW, 25 WTGs, total capacity 50 MW^{/WYA/}.</p> <p>All models have been assessed with energy yield predictions from P50, P75, P90, P95 and P99 which has been determined with WaSP and computational fluid dynamics (CFD) flow modelling. The value of net electricity generation (168.5 GWh) is the highest value based on P50 yield with a plant load factor of 38.8 %. All these figures have been derived from the latest available version of the wind yield assessment.^{/WYA/} The study has been provided by SGURR Energy a consulting company located in UK.^{/sgu/} The official website of the company has been checked and it could be confirmed that the entity is an independent third party active in the field of wind energy consulting (EB 48 Annex 11 paragraph 3 (b)). Hence, TÜV assessed the information provided as reliable and appropriate.</p> <p>It should be noted that the GE model will most likely be selected. TÜV NORD concluded that the section A.4.3. is filled with all relevant information available at the time of validation. CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	A4
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The operation & maintenance, training and competency of staff should be included in PDD section B.7.2. Cp PDD-G
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Information added to B.7.2 and Annex 4.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Relevant information has been added to the monitoring sections in the PDD. Training will be conducted and a CDM manual will provide additional guidance on the monitoring process.</p> <p>The information is sufficient to show that an accurate and complete monitoring is conducted by qualified personnel.</p> <p>CAR is closed.</p>



Finding	A4
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements

Finding	A5
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ul style="list-style-type: none"> In PDD section A.4.4 the table 2 template is incorrect. In Annex 1, the complete details of the project participants are to be provided.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<ul style="list-style-type: none"> The exact table from the guidance document is replicated. Complete details given in Annex 1
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ul style="list-style-type: none"> Ok, the table in section A.4.4. has been adjusted to the form as provided in the PDD master template. This has been checked and is confirmed by the validation team. Ok, the PP has revised the PDD including the complete information about the project participant. All information required is addressed. <p>CAR is closed out.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	A6
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The calculation of the emission factor is not in line with the latest Tool to calculate the emission for an electricity system and the base data for the OM and BM calculation is not transparent.</p> <p>PP is requested to correct this.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The PDD has been revised and relevant data is provided.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The corrected PDD refers to the "Tool to calculate the emission factor for an electricity system" Version 2.2.1. The validation team confirms by means of checking the UNFCCC website^{/unfccc/} that the version is applicable and valid.</p> <p>The PP follows the step wise approach as indicated in the tool.</p> <p>Step 1: The grid identified as the relevant electricity system is the Central Energy System (CES) of Mongolia. It should be noted that</p>

Finding	A6
	<p>Mongolia consists of four independent grids. CES constitutes of about 90 % of installed capacity in Mongolia.^{/WWEA/} The proposed project is connected to CES which has been verified through the power purchase agreement.^{/PPA/} The CES is connected with the Russian grid. The emission factor for imports is chosen as 0 in line with the methodology. It could be further verified that the DNA of Mongolia has published the delineation of the electricity grid in a XLS file, downloadable on the following website: http://www.cdm-mongolia.com/index.php?option=com_content&view=article&id=75&Itemid=105&lang=en (access: 2011-12-09). Hence, the validation team concluded that the choice of the grid is in line with the requirements.</p> <p>It could be further verified that the electricity exports have not been subtracted from the generation data.</p> <p>Step 2: In line with the grid tool the PP decided not to consider off-grid power plants in the calculation of the emission factor. By means of checking the EF calculation this could be confirmed.</p> <p>Step 3: The simple OM method has been chosen since low-cost/must-run resources constitute less than 50 % of the total electricity generation. The validation team confirms this since the defined grid only consists of 5 combined heat and power plants (CHP) which supply electricity to the grid. None of the plants are considered to be low-cost/must-run. Hence, the 50 % threshold is met and the applicability of the simple OM is confirmed.</p> <p>The PP further decided to apply for an ex-ante determination of the OM, which results in a fixed EF during the crediting period.</p> <p>Step 4: As per the applied tool the simple OM can be calculated based on 2 options. The PP correctly decided to apply Option A since data is available for this case. Option A is defining the following formula:</p> $EF_{\text{grid,OMsimple,y}} = \frac{\sum_m EG_{m,y} \times EF_{EL,m,y}}{\sum_m EG_{m,y}}$ <p>$EG_{m,y}$ is the net quantity of electricity delivered to the grid by the power unit m in year y $EF_{EL,m,y}$ is the CO₂ emission factor of the power unit m</p> <p>The emission factor $EF_{EL,m,y}$ is determined through Option A1 since for each power unit the data on fuel consumption and electricity generation is available. This has been confirmed by means of checking the base data for emission factor calculation. The formula applied is in line with the methodology and as following:</p>

Finding	A6
	$EF_{EL,m,y} = \frac{\sum_i FC_{i,m,y} \times NCV_{i,y} \times EF_{CO_2,i,y}}{EG_{m,y}}$ <p> $FC_{i,m,y}$ is the amount of fossil fuel type i consumed by power unit m in years y. $NCV_{i,y}$ is the net calorific values of the fossil fuel type i in year y. $EF_{CO_2,i,y}$ is the CO₂ emission factor of fossil fuel type i in year y. $EG_{m,y}$ is the net quantity of electricity delivered to the grid by the power unit m in year y. </p> <p>The validation team concluded that the OM emission factor calculation is following the requirements of the tool and is based on data which publicly available and has been verified by the validation team. The data is obtained from the Ministry of Mineral Resources and Energy in the year 2007, i. e. the data was available at the time of publishing the PDD.^{/EFC/} The data was provided in an official document to the project owner, hence the authenticity is confirmed.</p> <p>Step 5: The built margin has been calculated based on the ex-ante approach which is defined in Option 1. For the sample groups of power plants the PP decided to consider the 5 recent built power plants since they constitute more than 20 % of the total electricity generation. This is, of course logic, since only 5 power plants are connected to the grid. However, since all power plants are operating more than 10 years and no CDM project supplying electricity to the grid has been identified at the time of publishing the PDD for GSP the 20 % of power units most recently added to the capacity have been considered in line with (e) and (f) on page 15 of the grid tool. As per the publicly available data this is power station 4. The most recent year for which data is available at the time of PDD GSP is the year 2006.</p> <p>The PP opted for the SET_{sample CDM->10 years}.</p> <p>Hence, as a conservative approach stipulated in the tool the following formula is applicable:</p> $FE_{EL,m,y} = EF_{CO_2,m,i,y} \times 3.6 / \eta_{m,y}$ <p> $EF_{EL,m,y}$ = CO₂ emission factor of power unit m in year y (tCO₂/MWh) $EF_{CO_2,m,i,y}$ = Average CO₂ emission factor of fuel type i used in power unit m in year y (tCO₂/GJ) $\eta_{m,y}$ = Average net energy conversion efficiency of power unit m in year y (ratio), using the default values provided in Annex 1 of the EF Tool, i.e. 37% for sub-critical coal-fired plant. m = All power units serving the grid in year y except low-cost/must-run power units y = The relevant year as per the data vintage chosen in Step 3 </p>



Finding	A6
	<p>This approach correctly follows Option A2 of the Simple OM calculation. This is clearly indicated in step 5 of BM calculation and correctly applied by the PP.</p> <p>Step 6: The emission factor has been calculated as combined margin weighting the operating margin and built margin as 75%/25% as per the applied tool.</p> <p>The sources provided by PP to calculate the emission factor have been checked by the validation team as following:</p> <ol style="list-style-type: none"> 1. The basic data (No. of power plants, start of operation, fuel type, fuel use, net power generation) to calculate the OM and the BM are derived from the official data provided by the Ministry of Mineral resources and Energy in the year 2007.^{/EFC/} 2. The fuel used is lignite. The PP has calculated the share of fuel used for electricity and for heat based on data from the document "Statistical Indicators for Energy Sector" provided by the Energy Regulatory Authority of Mongolia. 3. The emissions from each plant have been calculated considering the NCV of lignite (3500 kcal/kg) derived from the Second National Communication of Mongolia to the UN^{/ADD2/} and the IPCC default value at lower confidence level of the CO₂EF for lignite (24.8 tC/TJ). Both values have been checked and assessed to be appropriate. <p>In conclusion the emission factor calculation has been described transparently in the PDD. All sources and input data are referenced and checked as appropriate by the validation team. The calculations are correct. CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	B1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Section A.4.3. of the published PDD does not include the plant load factor as required in the latest guidance to complete a PDD. PP is requested to correct the specific section.		



Finding	B1
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The plant load factor is determined to be 38.8%. It should be noted that the total electricity generation increased compared to the previous version of the PDD. Hence, also the factor changed. This is mainly due to the case that the individual capacity of the turbines has been increased and the wind availability at 80 meters height (compared to 58 meters before) has been changed as well.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The validation team could confirm the applied plant load factor by means of checking the latest available wind yield assessment conducted by Sgurr Energy Ltd. Referring to guideline from EB 48 Annex 11 paragraph 3 (b) TÜV NORD concluded that the plant load factor is appropriate and reliable. Sgurr Energy Ltd. is a UK based consulting company specialized in renewable energies. After consulting the website^{/sgu/} the validation team is confident that the company has sufficient experience to conduct an appropriate wind yield assessment. Hence, the PLF has been determined as OK. CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p>

Finding	B1.1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>In the course of the validation the version of the applied methodology has been changed several times. The PP is requested to adjust the PDD reflecting the requirements of the latest applicable methodology version.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The PDD has been adjusted reflecting the requirements of the latest applicable version of the methodology, i. e. Version 12.1.0.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>In the final stage of the validation the applicable methodology version is 12.1.0. The UNFCCC website has been checked and PDD content has been compared to the version. The content of the PDD is correct and the version of the methodology is valid.^{/unfccc/, /ACM2/, /PDD/}</p> <p>The section B.2. of the PDD provides a clear justification of the methodology applicability of the proposed project activity. It is a new installation of renewable energy (Greenfield wind power project). In addition the PDD provides clear reference to the applicability of the additionality tool (EB 39 Annex 10) and the grid tool (EB 61 Annex 12). Both tools are correctly identified as applicable since the methodology prescribes the utilization of the tools. The requirements of the proposed project with regard to the grid tool are met, since the proposed project is grid connected which could be confirmed with the power purchase agreement^{/PPA/} and the electricity system is solely located in Mongolia. Net Imports</p>



Finding	B1.1
	<p>from Russia are less than 1 percent during the years 2004 – 2006.^{/XLS/} The electricity system in Mongolia is independent. It is not part of an electricity system in an Annex 1 country.</p> <p>The methodology and all relevant tools are applicable to the applied methodology.^{/ACM2/, /TA/}</p> <p>CAR is therefore considered to be closed out.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	B2
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The starting date as reported in the published PDD could not be evidenced since documented evidence is missing. PP is requested to clarify the starting date backed-up with documented evidence.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The starting date has been re-defined to be 2011-05-31. The PDD has been corrected and the construction for the access road has been forwarded.</p>
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>In table 4 of the PDD it is indicated that the project owner signed a land lease contract on 26th July 2004. Clarification is requested why this date is not considered as the starting date as per the CDM Glossary of Terms.</p>
Corrective Action #2	<p>The land lease agreement is not the starting date of the proposed project activity. A land lease agreement was required as a first step in the development of a project idea. Wind speed testing and other feasibility studies, environmental assessments and project approval requests are only possible once access to the land is obtained.</p>
DOE Assessment #2	<p>TÜV NORD assessed that the land lease agreement cannot be considered as the starting date of the project activity. The argumentation is considered conclusive and the land lease contract cannot be considered as a significant amount spent and as a point of no return. The annual payment is much less than 1 % of the total investment.</p> <p>The starting date has been changed from 2008-04-01 to 2011-05-31. The date chosen is assessed plausible, since it is backed-up with the construction contract for the road.^{/CON/}</p> <p>The team could verify that the chosen starting date is fully in line with the CDM Glossary of Terms, since the contract is the first agreement where the project participant committed to reasonable expenditures.</p> <p>The project start date is after the 2nd August 2008. In line with EB 62 Annex 13 paragraph 2 the PDD has been published on</p>



Finding	B2
	2007-08-23 which is before the starting date. Hence, a notification from the CDM EB as well as the DNA is not necessary. Thus the validation team concluded that the prior consideration of CDM is well evidenced in line with the CDM requirements. CAR is closed.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	B2.1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	As per the VVM paragraph 105 the baseline is clearly prescribed by the methodology. Hence, the alternatives as shown in section B.5. sub-step 1a shall be excluded.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The PDD has been revised.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Ok, the PDD includes the baseline scenario as prescribed in ACM0002 Version 12.1.0. The validation team concluded that this is in line with the VVM paragraph 105. Information provided is appropriate. The identified alternative is in line with the national requirements since the construction license has been issued by the government. ^{/CL/} CAR is therefore closed.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	B3
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The arguments presented for additionality in the PDD are not backed up with the supporting evidence viz. reference to the correct web links, documents to support the additionality argument.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Where required references are corrected in the PDD or evidence presented to the DOE.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and</i>	The PDD has been revised focussing on the barrier due to prevailing practice that the project is first-of-its-kind. This has been backed-up with the following evidence: 1. A document provided by the Energy Charter Secretariat from



Finding	B3
<p>DOE assessments (#2, #3, etc.) shall be added.</p>	<p>Belgium analysing the EE policies in Mongolia. The document has been published in 2011. The Energy Charter Secretariat is a conglomerate of countries, which aim to strengthen the rule of law on Energy issues.^{/ADD-1/}</p> <p>2. A document provided by the Ministry of Nature, Environment and Tourism: Mongolia Second National Communication to the UNFCCC.^{/ADD-2/}</p> <p>3. A confirmation letter from the Energy Regulatory Authority of Mongolia which confirms that the project is first wind facility in Mongolia receiving the permission for construction (construction license).^{/ADD-3/}</p> <p>4. A confirmation from the Central Region Electricity Transmission Grid a governmental organisation granting the power purchase agreement also confirming that this project is the first wind farm supplying electricity to the grid.^{/ADD-4/}</p> <p>5. An analysis of the Renewable Energy Market in Mongolia provided by Renewable Energy and Energy Efficiency Partnership (Reeep) from October 2005.^{/ADD-5/}</p> <p>The documents have been assessed as reliable and authentic since they are either publicly available, like the first two sources or are provided by governmental authorities duly signed and stamped. The validation team conducted a cross-check with the publicly available annual report of the World Wind Energy Association: Wind Energy International 2011/2012. In this report it is clearly stated that no grid connected wind farm is currently operating in Mongolia.^{/WWEA/}</p> <p>The evidence provided and checked clearly shows that the project is the first-of-its-kind in Mongolia. Consequently the project is not common practice. As per the additionality tool a common practice analysis is not necessary.</p> <p>Hence, the validation team concluded that the project is additional. CAR is closed.</p>
<p>Conclusion Tick the appropriate checkbox</p>	<p><input type="checkbox"/> To be checked during the first periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p>

Finding	B4
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
<p>Description of finding Describe the finding in unambiguous style; address the context (e.g. section)</p>	<p>The PDD should include a timeline of the development of the project activity, showing milestones of CDM and project development.</p>



Finding	B4
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Full timeline included in B.5. It shows clearly that the starting date is long after the project was listed for GSP.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The PDD provides a clear timeline of the development of the project activity.</p> <p>The validation team checked the latest applicable guidance of the demonstration and assessment of prior consideration (EB 62, Annex 13). According to this guidance the project is categorized as new activity in accordance to chapter II, since the starting date is 2011-05-31^{/PSD/}.</p> <p>In line with paragraph 2 the PP refused to inform the DNA since the project was published in 2007 on the UNFCCC website (2007-08-23), which is before the starting date of the activity.</p> <p>Hence, in accordance with the ruling the PP takes CDM benefits seriously into account to undertake the project activity.</p> <p>Therefore CAR B4 is closed out.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	B5
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<ul style="list-style-type: none"> In B.6.1, B.6.3 and other relevant PDD sections, variable nomenclature is not consistent to ACM0002. In B.6.2 tables, not all used references are included (websites/documents).
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Updated for latest methodology and guidance.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>It should be noted that the PDD has been revised in terms of changing the version of the applied methodology from Version 6 to Version 12.1.0.</p> <p>The following way of calculating the emission reductions has been conducted:</p> <p>Baseline Emissions: The formula applied for the calculation of baseline emissions is: $BE_y = EG_{\text{facility},y} \times EF_{\text{grid},CM,y}$ where $EG_{\text{facility},y}$ is the quantity of net electricity supplied to the grid $EF_{\text{grid},CM,y}$ is the combined margin emission factor of the grid where the electricity is supplied to.</p> <p>The validation team confirms that the formula applied is in accordance to the latest version of the methodology.</p> <p>Project Emissions: The project emissions are correctly considered to be zero in line</p>



Finding	B5
	<p>with the methodology.</p> <p>Leakage: Leakage is correctly considered to be zero in line with the methodology.</p> <p>This results in the following formula to calculate emission reductions: $ER_y = BE_y$</p> <p>The validation team confirms that the approach is fully in line with the methodology. It should be noted that other approaches are not allowed by the applied methodology. All equations applied are properly justified and correctly indicated.</p> <p>The sources for the parameters shown in section B.6.2. have been provided in Annex 3 to the PDD and confirmed to be OK.</p> <p>However, in the published PDD the value for and NCV and EF are based on national data (refer to page 23), while the revised PDD utilizes IPCC values. PP is requested to clarify this.</p> <p>Hence, CAR could not be considered as closed out.</p>
Corrective Action #2	<p>The IPCC value for EF is a conservative default factor in accordance with the EF Tool. Therefore this is conservative.</p> <p>The NCV value is taken from the Second National Communication.</p>
DOE Assessment #2	<p>Ok, the approach is verified as correct. One source^{/EF/} has been provided by the PP showing that the EF for Mongolian coal (between 27.6-33.04 tC/TJ) is higher than the default value of IPCC at lower confidence level (24.8 tC/TJ). Therefore the PP decided to chose the more conservative value, i.e. the lower.</p> <p>In addition two sources for the NCV have been provided.^{/NCV/} The paper from the Department of Civil Engineering shows an NCV of 3600 kcal/kg, while the value indicated in the Second National Communication under the UNFCCC is providing a value of 3500 kcal/kg. For the sake of conservativeness the lower value is chosen which is assessed acceptable.</p> <p>Hence, CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	B6
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>In PDD section B.6.3, the equation defined in section B.6.1 is not filled with real figures to make the results reproducible. This mainly refers to the formula for CM calculation. Cp PDD guidelines.</p> <p>Moreover, in B.6.4, the table 5 template used is incorrect.</p>
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	All data in submitted ER.xls and EF.xls



Finding	B6
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Ok, the PDD provides the calculation of emission reductions in section B.6.3. Detailed and traceable calculation of the emission factor is provided in the attached XLS file. CAR is closed.</p>
Conclusion <i>Tick the appropriate checkbox</i>	<p> <input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p>

Finding	B7
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The monitoring plan in section B.7 and Annex 4 should be revised wrt the following:</p> <ul style="list-style-type: none"> The institutional arrangements for data collection and archiving for a period of 2 more years after the crediting period or last date of CER issuance should be included. Cp PDD guidelines A management flow chart is not included for the demonstration of responsibilities. The parameter net electricity generation is not in line with the latest available methodology version.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Revised
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<ul style="list-style-type: none"> Ok, in Annex 4 it is clearly indicated that the records will be kept at least 2 years after the last CER issuance. The PDD has been checked and revision is confirmed. A management flow chart is incorporated in section B.7.2. However, no description is presented. Hence, the issue is not closed. The parameter to be monitored has been correctly provided as $EG_{facility,y}$, i.e. the net electricity generation. It is further indicated that the parameter is derived from the exports and imports which is measured by a main meter with accuracy 0.2 and duly calibrated at least annually. The electricity will be measured continuously and recorded at least monthly. Electricity sales receipts will be utilized for cross-check purposes. <p>Overall the monitoring plan is in a shape which allows an accurate measurement of electricity and a proper determination of emission reductions which can be verified. QA/QC procedures are defined to ensure an ex-post reporting and verifying. In addition data management procedures are defined. All requirements as provided in the methodology are met.</p> <p>However, the second issue above with regard to the management flow chart should be corrected before the CAR can be closed.</p>



Finding	B7
Corrective Action #2	A reference has been provided to Annex 4 of the PDD.
DOE Assessment #2	TÜV NORD confirms that the Annex 4 of the PDD provides sufficient information to show that an accurate and complete monitoring of all relevant parameters can be conducted. CAR is therefore closed out.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

Finding	C1
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The starting date of crediting period as indicated in the PDD (2009-01-01) cannot be met. During the validation no contract for turbine purchase has been signed yet. Hence, the PP is requested to choose a more reasonable date.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The date chosen is 2012-10-01.
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Ok, the date is assessed as more reasonable and hence, accepted. CAR is closed.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Participation

LOA

The Host Country Approval has been issued on 2011-11-11 by the DNA of Mongolia, the CDM National Bureau which is coordinated by the Ministry of Nature, Environment and Tourism. The document has been provided as scanned version by the PP. The authenticity has been confirmed by means of checking the publicly available list of all approved Mongolian CDM projects: http://www.cdm-mongolia.com/index.php?option=com_content&view=article&id=29&Itemid=18&lang=en. In addition the document is stamped and signed by the head of the authority Mrs. Tsendsuren Batsuuri. The approval clearly indicates that the project supports Mongolia in achieving the sustainability targets.

The letter of approval from Annex I country is not available at this stage. The project is of unilateral nature.

The precise title of the project indicated in both approvals is: Salkhit Wind Farm.

Project Participants

The entity approved for the non Annex 1 country is Clean Energy LLC.

The information provided in the PDD, LOA and MOC are consistent^{/LOA/, /LOA/, /MOC/}.

5.1.2 Contribution to Sustainable Development

The approval from Mongolia clearly indicates that the project supports the country in achieving sustainability targets. Several sustainability targets have been defined in the PDD and could be confirmed by the validation team due to sectoral expertise and document check.^{/FSR/, /LOA/}

5.1.3 PDD editorial Aspects

The PDD of the project is based on the latest PDD Template (Version 03) and complies with the Guidelines for Completing the PDD (Version 07).

5.1.4 Technology to be employed

The proposed project is the implementation of 31 wind turbine generators with an installed capacity of 1.6 MW each. The total installed capacity is 49.6 MW which

leads to a total net electricity generation of 168,500 MWh. The electricity is supplied to the Central Electricity System of Mongolia agreed in a power purchase agreement with the Central Regional Electricity Transmission Network.^{/PPA/} The description in the PDD is complete and accurate. The turbines installed are state of the art and environmentally safe and sound.

5.1.5 Small Scale Projects

The installed capacity of the proposed project is 49.6 MW^{/WYA/, /PPA/, /dna/} and is therefore not of small scale type.

5.2 Project Baseline, Additionality and Monitoring Plan

5.2.1 Application of the Methodology

The project applies the consolidated baseline and monitoring methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 12.1.0) which is approved by the CDM Executive Board.

The valid versions of methodological tools, "Tool to calculate the emission factor for an electricity system" (Version 02.2.1)^{/TEF/} and "Tool for the demonstration and assessment of additionality" (version 5.2)^{/TA/} are applied and referenced in accordance with ACM0002.

The applied methodology and methodological tools are available at UNFCCC website of <http://cdm.unfccc.int/methodologies/PAmethodologies/approved.html>.

All the applicability conditions of the methodology ACM0002 are met, and the project activity is not expected to result in any other significant emissions not addressed by the applied methodology. All stipulations are followed. The validation team checked the methodology and tools and compared it to the content of the final PDD.

5.2.2 Project Boundary

According to the applied methodology ACM0002, the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to. The project boundary and the selected sources and gases which are justified for the project activity are identified in B.3 of the PDD and are in line with the publicly available data provided by the Mongolian government.^{/dna/, /EFC/}

5.2.3 Baseline Identification

The DOE confirms that the procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied, and the description of baseline identification in the PDD is transparent and verifiable.

According to applied methodology ACM0002, the baseline scenario for new grid-connected renewable power plants/units is: *Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system"*.

According to paragraph 105 of the VVM^{VVM/}, the applied methodology ACM0002 prescribes the baseline scenario and no further analysis is required in identification of alternatives.

5.2.4 Calculation of GHG Emission Reductions

The emission reduction calculation is conducted as per applied methodology ACM0002 and the methodological tool "Tool to calculate the emission factor for an electricity system"^{TEF/} and correct equations and parameters have been used accordingly.

The emission reductions (ER_y) of the project activity are the difference between the baseline emissions (BE_y), project emissions (PE_y) and the leakage emissions as follows:

$$ER_y = BE_y - PE_y$$

Baseline emission:

BE_y is calculated by multiplying the net electricity supplied to the Central Electricity System ($EG_{Pi,y} = EG_{facility,y}$) with combined margin emission factor ($EF_{grid,CM,y}$):

$$BE_y = EG_{facility,y} \times EF_{grid,CM,y}$$

The emission factor ($EF_{grid,CM,y}$) is calculated by using a valid version of the "Tool to calculate the emission factor for an electricity system". It is determined ex-ante and consists of the weighted average factors of operating margin ($EF_{grid,OM,y}$) and build margin ($EF_{grid,BM,y}$).

The data source and process of calculation OM and BM are based on the data that is available at the time of submission of the CDM-PDD to the DOE for validation in 2007. It is derived from data published by the Ministry of Fuel and Energy of Mongolia and by the Energy Regulatory Authority of Mongolia.^{EFC/} The data vintages and calculation have been checked and were assessed as correct.

$EF_{grid,OM,y}$ and $EF_{grid,BM,y}$ are calculated as 1.121 tCO₂e/MWh and 0.885 tCO₂e/MWh. In accordance with ACM0002 that weight factors of $w_{OM} = 0.75$ and $w_{BM} = 0.25$ have been used to calculate the grid emission factor $EF_{grid,CM,y}$ (1.061 tCO₂e/MWh).

Project emissions:

As per the applied methodologies project emissions are not applicable.

Leakage:

According to the applied ACM0002, leakage is considered as zero.

Emission reductions:

The annual net generated electricity of the project is estimated to be 168,500 MWh (based on calculations from the WYA data). According to the above information, the annual emission reductions of the project are calculated as following:

$$\begin{aligned} ER_y &= BE_y - PE_y \\ &= BE_y = EG_{facility,y} \times EF_{grid,CM,y} \\ &= 168,500 \text{ MWh} \times 1.061 \text{ tCO}_2\text{e/MWh} \\ &= 178,778 \text{ tCO}_2\text{e} \end{aligned}$$

The GHG emission reductions covering the renewable crediting period (7 years) are estimated ex-ante as 1,251,446 tCO₂e.

It is confirmed by the DOE by cross-checking the whole calculation process^{/XLS/} against all referenced data sources and the requirements of applied methodology and methodological tools that:

- a) All data sources and assumptions used are listed and referenced in the PDD and are appropriate. They are derived from Thai DNA and default values from IPCC. Calculations are correct, applicable to the proposed CDM project activity and will result in a conservative estimation of the emission reductions;
- b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- c) All values used in the PDD are considered reasonable in the context of the proposed CDM project activity;
- d) The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD. Please also refer to CAR A6, CAR B5 and CAR B6.

5.2.5 Additionality Determination

Consideration of CDM in decision making (if project start before validation)

The validation started after the project starting date, which is defined as 2011-05-31, the earliest date on which the project owner committed to expenditures.^{/PSD/} This is in accordance to the CDM Glossary of Terms. According to EB 62 Annex 13 the proposed project is defined as a new activity (according to chapter II). Since the PDD has been published (2007-08-23) well before the starting date notifications to the DNA and the UNFCCC are not necessary (paragraph 2).

Hence, the DOE confirms that the proposed project activity meets all stipulations as set out in EB62, Annex 13, paragraph 2 to 5.

Application of methodology / methodological tools

The additionality of the project activity was demonstrated and assessed using the latest version of the “Tool for the demonstration and assessment of additionality” Version 05.2 according to applied methodology ACM0002.

Alternatives

Alternatives to the project activity have not been defined, which is in line with the VVM paragraph 105. The methodology ACM0002 prescribes the baseline scenario (already assessed above). Hence, according to the above referenced rule “no further analysis is required”.

Investment analysis

The PP refers to the barrier analysis path.

Barrier analysis

The PP argues that the proposed project is the first of its kind in Mongolia and therefore faces a barrier due to prevailing practice. This has been substantiated with several official documents from governmental authorities and cross-checked with publicly available data by the validation team. For a detailed assessment it shall be referred to CAR B3 and Annex 4 of this report.

Common practice analysis

It has been well substantiated that the project is the first of its kind. Hence, the project is logically not common practice.

Summary

The PP could clearly show that the project is additional. Prior Consideration could be evidenced. The additionality has been well substantiated. The validation team could transparently validate that the barrier due to prevailing practice (first of its kind) is existent and hence, appropriate.

5.2.6 Monitoring Methodology

The monitoring methodology ACM0002 Version 12.1.0 is applicable. The monitoring plan provided in section 7 of the PDD is in compliance as per the defined stipulations in the methodology.

5.2.7 Monitoring Plan

The DOE applied a two-step process to assess compliance with the requirements of monitoring plan, as follows:

- a) Compliance of the monitoring plan with the approved methodology:
 - (i) Identified the list of parameters required by the selected approved methodology by means of document review;
 - (ii) Confirmed that the monitoring plan contains all necessary parameters, that they are clearly described and that the means of monitoring described in the plan complies with the requirements of the applied methodology ACM0002 and subscribed tools;
- b) Implementation of the plan:
 - (i) The monitoring arrangements described in the monitoring plan are feasible within the project design;
 - (ii) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified.

The assessment has been conducted by the DOE by means of reviewing of the respective sections in the PDD, interviewing with relevant personnel, requirements of the methodology and sectoral expertise.

5.2.8 Project Management Planning

The operational and management structure that the project operator will implement in order to monitor emission reductions is described in the PDD. It clearly indicates the responsibilities and institutional arrangements for data collection and archiving.

In conclusion, the monitoring plan sufficiently prescribes monitoring measures to ensure an accurate and complete approach to derive the emission reductions.

5.2.9 Crediting Period

The starting date of the renewable crediting period is 1st October 2012. The starting date is deemed to be appropriate.

5.2.10 Environmental Impacts

An EIA in accordance to Mongolian law has been carried out on 4th September 2006.^{/EIA/} It is approved by the Mongolian government, i. e. the Ministry of Environment of Mongolia on 27th September 2006.^{/AEIA/} No significant impacts are expected.

5.2.11 Comments by Local Stakeholders

As part of the approval of the project an official stakeholder consultation has been carried out on 2007-08-10. Relevant stakeholders like local governmental officials, village leaders, herders and NGOs were invited. In addition the project owner visited households in the surrounding of the project site. The relevant documents for the stakeholder consultation like minutes of meeting, attendance list and photos were reviewed.^{/SHP/} The approval of the project was granted by the Mongolian government. Therefore, TÜV NORD concluded that the stakeholder consultation has been conducted in line with the national requirements and the CDM requirements.



6 VALIDATION OPINION

Clean Energy LLC has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: "Salkhit Wind Farm" with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board.

In the course of the validation 17 Corrective Action Requests (CARs) were raised and successfully closed.

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarised as follows:

- The project is in line with all relevant host country criteria (Mongolia) and all relevant UNFCCC requirements for CDM. Project activity approval has been obtained from DNA of Mongolia vide the Letter of Approval (LOA) dated 2011-11-11. The proposed project is of unilateral kind and hence no LOA from Annex 1 country is available.
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 1,251,446 tCO₂e are most likely to be achieved within the (1st renewable) crediting period.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.

Essen, 2012-03-28

A handwritten signature in blue ink, appearing to read 'Saalmann'.

Martin Saalmann
TÜV NORD JI/CDM CP
Validation Team Leader

Essen, 2012-03-28

A handwritten signature in blue ink, appearing to read 'Ingo Klein'.

Ingo Klein
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/ADD/	<ol style="list-style-type: none"> 1. In-Depth Review of Energy Efficiency Policies and Programmes: Mongolia; Energy Charter Secretariat, 2011, page 75 2. Mongolia Second National Communication under the UNFCCC, Ministry of Nature, Environment and Tourism, 2010, page 74 3. Construction License, Energy Regulatory Authority of Mongolia, 2011-08-01 4. Letter from Central Region Electricity Transmission Grid (State owned company), 2011-08-03 5. Renewable Energy in Mongolia, Reeep, 2005-10-25
/AEIA/	Approval of Environmental Impact Assessment, dated 2006-09-27
/CL/	Construction license, issued by Energy Regulatory Authority of Mongolia dated 2011-08-01
/EF/	"Research on methods of reducing GHGs produced by fuel combustion in Mongolia", N. Tsolmon, School of Power Engineering, MUST, Ulaanbaatar, 2006
/EFC/	Emission factor calculations derived from the following documents: <ul style="list-style-type: none"> • Ministry of Fuel and Energy of Mongolia (29 August, 2007); Official data showing the fuel consumption, the electricity and heat generation of the CHPs serving the grid. • "Statistical Indicators for Energy Sector", Energy Regulatory Authority of Mongolia, 2007
/EIA/	Environment Impact Assessment, dated 2006-09-04
/ESIA/	Environmental and Social Impact Assessment of Salkhit Uul Wind Park, Mongolia; Black and Veatch, November 2008
/FSR/	Feasibility Study dt February 2011
/LOA/	<ul style="list-style-type: none"> - Host Country Approval stating all the project proponent name(s), dated 2007-10-10 - Adjusted Version, dated 2011-11-11
/IFC/	IFC funding pattern
/MOC/	Modalities of Communication



Reference	Document
/NCV/	<ul style="list-style-type: none"> • “Electricity generation from coal gasification technology”, D. Khishigsaikhan and D. Baljir, supervised by Ch. Dashpuntsag (Dr., PhD.), Department of Civil Engineering, MUST, Ulaanbaatar, 1999 • Mongolia Second National Communication under the UNFCCC, Ministry of Nature, Environment and Tourism, 2010
/PDD/	<ol style="list-style-type: none"> 1. Draft Project Design Document named “Salkhit wind park” (Version 1.1) hosted from 2007-08-23 to 2008-09-21 2. Final Project Design Document named “Salkhit Wind Farm” (Version 2.5)
/PPA/	Power purchase Agreement (dated 2010-12-06)
/PSD/	Evidence of Project starting date: Access Road Contract between Clean Energy LLC and Eastern Road LLC dated 2011-05-31
/SB/	Site boundary included as Annex 4 of the wind yield assessment from February 2011
/SHP/	Stakeholder consultation process evidence: <ul style="list-style-type: none"> - Invitation letter with questionnaires attached - Attendance List - Photos
/SL/	Site layout included as Annex 2 of the wind yield assessment from February 2011
/WYA/	Wind Yield Assessment; dated June 2011, version B5
/WYA -GE/	Wind Yield Assessment: Technology of WTG from GE (1.6 MW), dated 2011-04-27
/WYA -S/	Wind Yield Assessment: Technology of WTG from Siemens (2.3 MW); dated 2011-04-27
/XLS/	Emission reduction calculation spreadsheet

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM2/	Consolidated baseline methodology for grid connected electricity generation from renewable sources (Version 6 to 12.1.0)
/CPM/	TÜV Nord JI / CDM CP Manual (incl. CP procedures and forms)
/GCP/	UNFCCC: Guidelines for completing CDM-PDD and CDM-NM
/GEF/	Official data sources for Grid Emission Factor (Ministry of Fuel, Mongolia)
/IPCC/	<ul style="list-style-type: none"> IPCC Good Practice Guidance & Uncertainty Management in National Greenhouse Gas Inventories, 2000 Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual
/PDD-T/	Project Design Document Form (CDM PDD) – Version 03
/KP/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7))
/TA/	Tool for the demonstration and assessment of additionality (Ver. 5.2).
/TEF/	Tool to calculate the emission factor for an electricity system (Version 02.2.1)
/VVM/	Validation and Verification Manual (Version 01.2, Annex 1, EB 55)
/WWEA/	Wind Energy International 2011/2012, World Wind Energy Association, 2011

Table 7-3: Websites used

Reference	Link	Organisation
/dna-m/	http://www.cdm-mongolia.com/	The Designated Authority of Mongolia
/cd4cdm/	www.cd4cdm.org	UNEP Riso Centre
/iea/	http://www.iea.org/stats/electricitydata.asp?COUNTRY_CODE=MN	International Energy Agency
/gmp/	http://maps.google.de/maps?	Google Maps



Reference	Link	Organisation
	hl=de&tab=wl	
/newcom/	http://www.newcom.mn	NEWCOM LLC
/sgu/	www.sgurrenergy.com	Wind Yield Consultant
/stat/	http://www.nso.mn	Mongolian National Statistical Office
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	T	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Gankhuyag	NEWCOM LLC, Project Management
/IM01/	T	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Otgonsuren	NEWCOM LLC, Finance Devision
/IM01/	T	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Bayarmaa Amarjargal	Clean Energy LLC, Project Manager
/IM02/	T	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Christiaan Vrolijk	Carbon Resource Management Ltd, Consultant

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Validation Protocol
- A2:** Assessment of Baseline Identification
- A3:** Assessment of Financial Parameters
- A4:** Assessment of Barrier analysis
- A5:** Outcome of the GSCP
- A6:** Appointment certificates of the team members

ANNEX 1: VALIDATION PROTOCOL

Table A-1: Requirements Checklist

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
A. General Description of Project Activity				
A.1. Approval <i>The written approval of the parties involved is a mandatory requirement</i>				
A.1.1. Has the project provided written approvals of all parties involved? (EB 55 Annex 1, § 44) <i>Indicate whether a letter of approval has been received, with a clear reference to the supporting documentation.</i> <i>Indicate whether this letter was provided to the DOE by the project participants or directly by the DNA</i>	<i>Description:</i> The PP received the letter of approval from the designated national authority of Mongolia. The LOA has been provided by the PP as coloured scanned version. It should be noted that the project is of unilateral nature. <i>Justification of evidences:</i> The LOA has been provided and checked by the validation team. It is signed and stamped. <i>Conclusion:</i> A valid letter of approval has been provided for the proposed project activity.	/LOA/	OK	OK
A.1.2. Are the approvals issued from organisations listed as DNAs on the UNFCCC CDM website?	<i>Description:</i> The approval has been issued by CDM DNA Mongolia, Mr. A Enkhbat serving as the head of the DNA. The UNFCCC website provides the Ministry of Nature, Environment and Tourism of Mongolia as the responsible DNA. The same	/LOA/ /unfccc/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 44, 47, 48, 49 (b), 49 (c), 53) <i>Indicate the means of validation employed to assess the authenticity, i.e. in case of doubt whether LoA has been verified with the DNA. Further describe which entity submitted the LoA for validation.</i>	person signed the LOA, Mr. A. Enkhbat, is indicated as contact person. <i>Justification of evidences:</i> The content of the LOA and the relevant UNFCCC website has been checked and is matching. <i>Conclusion:</i> The organisation issued the LOA is listed as DNA on the UNFCCC website.			
A.1.3. Do the written approvals confirm that the corresponding party is a Party to the Kyoto Protocol? (EB 55 Annex 1, § 45(a))	<i>Description:</i> Mongolia is a party to the KP. <i>Justification of evidences:</i> LOA has been checked. <i>Conclusion:</i> Confirmation is provided in the LOA.	/KP/ /LOA/	OK	OK
A.1.4. Do the written approvals confirm that the participation is voluntary? (EB 55 Annex 1, § 45(b))	<i>Description:</i> The participation of the entity is voluntary. <i>Justification of evidences:</i> LOA has been checked. <i>Conclusion:</i> Confirmation is provided in the LOA.	/LOA/	OK	OK
A.1.5. Does the written approval from the host country confirm that the project contributes to the sustainable development in the country? (EB 55 Annex 1, § 45(c))	<i>Description:</i> The project contributes to sustainable development. <i>Justification of evidences:</i> LOA has been checked. <i>Conclusion:</i> Confirmation is provided in the LOA.	/LOA/	OK	OK
A.1.6. Do the written approvals refer to the precise project title in the PDD submitted for registration or an additional specification of the project activity, e.g. PDD version number? (EB 55 Annex 1, §§ 45(d), 50)	<i>Description:</i> The project name is Salkhit wind park. <i>Justification of evidences:</i> The content of the LOA and the PDD has been checked and compared. <i>Conclusion:</i> It has been observed that the project title in the LOA approval is "Salkhit Wind Farm" which is a deviation to the PDD. CAR A1.1 was raised.	/LOA/ /PDD/	CAR A1.1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
A.1.7. Are the written approvals unconditional with regard to A.1.3 to A.1.6? (EB 55 Annex 1, § 46)	<i>Description:</i> The LOA from Mongolia does not show other conditions instead of those necessary under CDM. <i>Justification of evidences:</i> LOA has been checked. <i>Conclusion:</i> The LOA is unconditional.	/LOA/	OK	OK
A.1.8. Is the information regarding the project participants listed in section A3 and in Annex 1 of the PDD internally consistent to each other? (EB 55 Annex 1, § 51)	<i>Description:</i> The project is a unilateral project and hence Mongolia is the only party involved in the project activity. However details about PP are missing. <i>Justification of evidences:</i> The PDD and relevant section therein have been checked. <i>Conclusion:</i> CAR A2 has been raised.	/PDD/	CAR A2	OK
A.1.9. Are all project participants listed in the PDD approved at least by one Party involved? (EB 55 Annex 1, § 51) <i>Indicate whether the participation of the project participant(s) has been approved by a Party to the Kyoto Protocol.</i> <i>Describe the means of validation employed to draw this conclusion.</i>	<i>Description:</i> The PP listed in the published version (for GSP) of the PDD is Newcom LLC. The same is addressed in the LOA. <i>Justification of evidences:</i> The PDD and the LOA approval have been checked. <i>Conclusion:</i> Newcom LLC is not addressed in the latest version of the PDD. However, it is not indicated whether the entity is private or public. Hence, the following CAR A2 has been raised.	/PDD/ /LOA/	CAR A2	OK
A.1.10. Are any other project participants approved but not listed in the PDD? (EB 55 Annex 1, § 52)	<i>Description:</i> The only PP listed is Newcom LLC from Mongolia. The proposed project is of unilateral nature. Hence, an entity from Annex 1 is not yet defined. <i>Justification of evidences:</i> The LOA has been checked. <i>Conclusion:</i> No other PPs not listed in the PDD have been observed.	/PDD/ /LOA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>A.1.11. Does the DoE have a direct contractual relationship with the PP?</p> <p>(EB 55 Annex 1, § 51; EB 50 Annex 48, §§ 7–9) <i>Check whether the PPs listed in the published PDD are still listed in the PDD going to be submitted to request for registration.</i></p>	<p>A contract between the PP and TÜV NORD is established and can be forwarded to the CDM EB upon request.</p>	<p>-</p>	<p>OK</p>	<p>OK</p>
<p>A.2. Contribution to Sustainable Development</p> <p><i>The project's contribution to sustainable development is assessed.</i></p>				
<p>A.2.1. Has the host country confirmed that the project assists it in achieving sustainable development?</p> <p>(EB 55 Annex 1, §§ 125–127) <i>Contains a statement confirming whether the letter of approval by the DNA of the host party confirmed the contribution of the project to the sustainable development of the Host Party.</i></p>	<p><i>Description:</i> The LOA confirms that the project assists Mongolia in achieving sustainable development.</p> <p><i>Justification of evidences:</i> The LOA has been checked.</p> <p><i>Conclusion:</i> Mongolia confirmed sustainable development.</p>	<p>/LOA/</p>	<p>OK</p>	<p>OK</p>
<p>A.2.2. Will the project create other environmental or social benefits than GHG emission reductions?</p> <p>(EB 55 Annex 1, §§ 125–127) <i>Describe the other positive aspects not related to GHG</i></p>	<p><i>Description:</i> Local employment opportunities and reductions of pollutants like SO₂ is envisaged by implementing and operating the proposed project activity.</p> <p><i>Justification of evidences:</i> The content of section A.2. of the PDD has been checked and, this could be confirmed by expertise of the</p>	<p>/PDD/</p>	<p>OK</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>emission reduction on the environment.</i>	validation team. <i>Conclusion:</i> Other environmental and social benefits are created.			
A.3. PDD editorial aspects <i>The PDD used as a basis for validation shall be prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website.</i>				
A.3.1. Has the latest version of the PDD form been applied? (EB 55 Annex 1, § 55)	<i>Description:</i> The PDD template version is no. 3 from 28 th July 2006. <i>Justification of evidences:</i> The latest available version of the PDD template on the UNFCCC website has been compared to the PDD submitted for GSP. <i>Conclusion:</i> The latest available version is applied.	/PDD/ /PDD-T/	OK	OK
A.3.2. Has the PDD been duly filled in accordance with the latest guidance(s)? (EB 55 Annex 1, §§ 56–57)	<i>Description:</i> All sections in the PDD have been filled. <i>Justification of evidences:</i> The content of the PDD has been checked and compared to the requirements of the latest guidelines (Version 7). <i>Conclusion:</i> In general all sections in the PDD are filled in accordance to the guidance. However, CAR A5 has been raised.	/PDD/ /GCP/	CAR A5	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
A.4. Technology to be employed <i>Validation of project technology focuses on the project engineering, choice of technology and competence/maintenance needs. The DOE should ensure that environmentally safe and sound technology and know-how is used.</i>				
<p>A.4.1. Does the PDD contain a clear, accurate and complete project description?</p> <p>(EB 55 Annex 1, §§ 58–59)</p> <p><i>The PDD shall contain a clear description of the project activity which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation.</i></p> <p><i>Pl. consider esp. chapters A.2, A.4.2 and A.4.3 (in case of LSC PDD) for assessment.</i></p> <p><i>Describe the process undertaken to validate the accuracy and completeness of the project description.</i></p> <p><i>Contain the DOE's opinion on the accuracy and completeness of the project description.</i></p>	<p><i>Description:</i> The CDM validation started in a very early stage of project implementation. At the time of validation wind turbines have not been contracted. Hence, information of wind turbine generators to be implemented is not existent</p> <p><i>Justification of evidences:</i> The relevant PDD section, the wind yield assessment and telephone interview with the PP has been conducted to check the appropriateness of PDD content about technology.</p> <p><i>Conclusion:</i> Even though information of WTG types to be implemented is not detailed and finally available the section A.4.3 shall be revised indicating information necessary as per the PDD guidance. Hence, CAR A3 has been raised.</p>	/PDD/ /GCP/ /WYA/	CAR A3	OK
<p>A.4.2. Is this description in accordance with the real situation or (in case of greenfield projects) is it most likely that the project will be implemented acc to the project description?</p>	<p><i>Description:</i> As already explained above the project is in a very early stage. A decision on which WTG types will be implemented is not taken. Several manufacturers are under consideration. As described in the PDD, the project will have an installed capacity of about 50 MW depending on the rated capacity and number of</p>	/PDD/ /WYA/ /IM01/	CAR A3 CAR A1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<p>implemented turbines.</p> <p><i>Justification of evidences:</i> The PDD content and the wind yield assessment together with information gained through interviewing the PP have been considered in the assessment.</p> <p><i>Conclusion:</i> In general it is clear that the proposed project will be a installation of a wind park with numerous WTGs leading to a installed capacity of about 50 MW. Based on the above mentioned evidence it is confirmed that the proposed project will be most likely implemented as indicated in the PDD. However, CAR A3 and CAR A1 were raised.</p>			
<p>A.4.3. In case the project involves alteration of the existing installation or process, is a clear description available regarding the differences between the project and the pre-project situation?</p> <p>(EB 55 Annex 1, §§ 63–64)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> The proposed project is of Greenfield nature as per the description in the PDD and justification of additionality (first-of-its-kind).</p> <p><i>Justification of evidences:</i> The wind yield assessment, the latest PDD and the construction license issued by the Energy Regulatory Authority of Mongolia have been checked and interviews have been conducted.</p> <p><i>Conclusion:</i> It is confirmed that no alteration is involved and the description of the pre-project scenario is clear.</p>	<p>/PDD/ /WYA/ /IM01/ /CL/</p>	OK	OK
<p>A.4.4. Does the project design engineering reflect current good practices?</p> <p><i>Consider the equipment specifications, literature (e.g. EU BREF papers) and professional experiences. Describe the process undertaken to assess the engineering.</i></p>	<p><i>Description:</i> The turbines most likely implemented do have capacities of above 1.5 MW.</p> <p><i>Justification of evidences:</i> The wind yield assessment has been checked and the PP has been interviewed.</p> <p><i>Conclusion:</i> Since the size of each wind turbines state of the art and the turbines are manufactured by well known WTG producers TÜV NORD concluded that the project design reflects current good</p>	<p>/WYA/ /IM01/</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	practice.			
<p>A.4.5. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?</p> <p><i>Describe the process undertaken to assess the state of the art technology.</i></p>	<p><i>Description:</i> The project to be implemented is a wind farm. Besides the fact that this is first of its kind in Mongolia, the electricity provided in the host country relies solely on fossil fuels.</p> <p><i>Justification of evidences:</i> The wind yield assessment has been checked. In addition the country specific website provided by the International Energy Agency show that in 2008 the electricity supply was solely based on fossil fuels. Further the baseline data provides the same picture.</p> <p><i>Conclusion:</i> The proposed project results in a significantly better performance the currently implemented technology.</p>	/WYA/ /iea/	OK	OK
<p>A.4.6. Does the project make provisions for meeting training and maintenance needs?</p> <p><i>Describe the process undertaken to assess the maintenance and training needs.</i></p>	<p><i>Description:</i> The published PDD does not provide such information.</p> <p><i>Justification of evidences:</i> The PDD has been checked.</p> <p><i>Conclusion:</i> Thus, CAR A4 has been raised.</p>	/PDD/ /GCP/	CAR A4	OK
<p>A.5. Small scale project activity</p> <p><i>It is assessed whether the project qualifies as small-scale CDM project activity</i></p>				
<p>A.5.1. Does the project qualify as a small scale CDM project activity as defined in decision 4 / CMP.1 annex II?</p> <p>(EB 55 Annex 1, §§ 135–136 (a))</p>	<p><i>Description:</i> As shown in the PDD the project will be implemented with a scale of about 50 MW.</p> <p><i>Justification of evidences:</i> The scale has been confirmed with the wind yield assessment, the construction license and the power purchase agreement.</p>	/PDD/ /WYA/ /CL/ /PPA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	<i>Conclusion:</i> The project does not qualify as small scale since the installed capacity is above the limit of 15 MW.			
<p>A.5.2. Does the project apply one of the approved small scale categories and any methodology and tool referred therein?</p> <p>(EB 55 Annex 1, § 136 (b)) <i>Check, if applicable the expiry dates of the applied methodology. Further, take into consideration the general guidance to the methodologies¹, which provide guidance on equipment capacity, equipment performance, sampling and other monitoring related issues.</i></p>	N/A		N/A	N/A
<p>A.5.3. Is the small scale project activity not a debundled component of a larger project activity?</p> <p>(EB 55 Annex 1, § 136 (c)) <i>Describe the steps taken to validate this issue. Pl refer to the Compendium of guidance on debundling (EB 54, Annex 13).</i></p>	N/A		N/A	N/A
<p>A.5.4. Is an assessment of the environmental impacts of the proposed SSC CDM project activity required by the host Party?</p> <p>(EB 55 Annex 1, § 136 (d))</p>	N/A		N/A	N/A

¹ <http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html>

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B. Project Baseline, Additionality and Monitoring Plan				
B.1. Application of the Methodology				
<p>B.1.1. Does the project apply an approved and applicable CDM methodology and a valid version thereof?</p> <p>(EB 55 Annex 1, § 65)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> At the time of starting the validation the methodology ACM0002 Version 6 has been applied. The version was valid at that time. Within the validation process the version has been changed several times. Content of the final PDD is based on ACM0002 Version 12.1.0.</p> <p><i>Justification of evidences:</i> The content of the PDD has been compared to the applied methodology.</p> <p><i>Conclusion:</i> The applied methodology ACM0002 is approved by EB. However, during the validation process the version of the methodology changed several times. Hence, CAR B1.1 has been raised.</p>	/ACM2/ /PDD/	CAR B1.1	OK
<p>B.1.2. Is the applied CDM methodology identical with the version available on the UNFCCC website?</p> <p>(EB 55 Annex 1, §§ 65, 70)</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> Reference is provided to methodology ACM0002 version 6. Several sections in the PDD (especially section B) do provide information which is contained in the applied methodology and the version thereof.</p> <p><i>Justification of evidences:</i> The methodology has been compared with the content in the PDD</p> <p><i>Conclusion:</i> Even though the version 6 was applicable at the time of PDD publishing the version changed several times during the</p>	/ACM2/ /PDD/	CAR B1.1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	validation process. Hence, CAR B1.1 was raised.			
<p>B.1.3. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled?</p> <p>(EB 55 Annex 1, §§ 66(a)–(b), 68, 71, 76)</p> <p><i>Describe for each applicability criterion listed in the selected approved methodology the steps taken to assess the information contained in the PDD.</i></p>	<p><i>Description:</i> The version of the methodology in the published PDD is outdated. Hence, applicability justification needs to be re-considered.</p> <p><i>Justification of evidences:</i> The latest version of the methodology has been checked and compared to the content of the PDD.</p> <p><i>Conclusion:</i> CAR B1.1 was raised.</p>	/ACM2/ /PDD/	CAR B1.1	OK
<p>B.1.4. In case one or more applicability criteria have not been met, has the validation team requested clarification to, revision of or deviation from the methodology in accordance with the latest guidelines?</p> <p>(EB 55 Annex 1, §§ 72–75)</p>	<p><i>Description:</i> The version of the methodology in the published PDD is outdated. Hence, applicability justification needs to be re-considered.</p> <p><i>Justification of evidences:</i> The latest version of the methodology has been checked and compared to the content of the PDD.</p> <p><i>Conclusion:</i> CAR B1.1 was raised.</p>	/ACM2/ /PDD/ /TA/	CAR B1.1	OK
<p>B.1.5. Is the project in accordance with every other stipulation or requirement mentioned in all sections of the methodology and in guidances for approved methodologies provided by the CDM EB?</p> <p>(EB 55 Annex 1, § 69, 71)</p> <p><i>Describe the steps taken to check whether the proposed project activity meets all the other possible stipulations and/or limitations mentioned in all sections of the approved</i></p>	<p><i>Description:</i> The PDD refers in all relevant sections to the applicable methodology.</p> <p><i>Justification of evidences:</i> The content of the PDD has been compared to the methodology.</p> <p><i>Conclusion:</i> The project is fully in line with the methodology.</p>	/ACM2/ /PDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>methodology selected.</i>				
B.2. Project Boundaries <i>Project Boundaries are the limits and borders defining the GHG emission reduction project</i>				
<p>B.2.1. Are the project's spatial boundaries (geographical) clearly defined?</p> <p>(EB 55 Annex 1, §§ 67(a), 78–80)</p> <p><i>Provide information on how the validation of the geographical boundary has been performed either based on reviewed documented evidence or by describing what was observed/viewed during a site visit.</i></p>	<p><i>Description:</i> The project boundary is the project site and the grid where the proposed project supplies the electricity to (i. e. Central Energy System of Mongolia).</p> <p><i>Justification of evidences:</i> The methodology applied has been checked to confirm that it is in line with the requirements. The central grid is served by 5 power plants. This information has been verified with the power purchase agreement and a note from the Ministry of Fuel and Energy.</p> <p><i>Conclusion:</i> The project boundary is clearly described.</p>	<p>/PDD/ /ACM2/ /XLS/ /PPA/</p>	OK	OK
<p>B.2.2. Are all sources and GHGs included in the project boundary as required in the applied methodology?</p> <p>(EB 55 Annex 1, §§ 67(a), 78–80)</p> <p><i>Provide information on how the validation of the GHGs and sources has been performed either based on reviewed documented evidence or by describing what was observed/viewed during a site visit.</i></p>	<p><i>Description:</i> The sole GHG source in the baseline scenario is CO₂ emitted from the fossil fuel fired power plants serving the grid.</p> <p><i>Justification of evidences:</i> The stipulations of the methodology have been checked and it could be confirmed that CO₂ is the only GHG in the baseline. In the project scenario no emissions from GHG are existing and hence, don't need to be considered.</p> <p><i>Conclusion:</i> The validation team could confirm that all sources of GHGs are considered.</p>	<p>/PDD/ /ACM2/</p>	OK	OK
<p>B.2.3. In case the methodology allows to choose whether a source and/or gas is to be included, is the choice sufficiently explained and</p>	<p><i>Description:</i> The methodology doesn't allow any choice.</p> <p><i>Justification of evidences:</i> The stipulations of the methodology have been checked and it could be confirmed that CO₂ is the only GHG</p>	<p>/PDD/ /ACM2/</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
justified? (EB 55 Annex 1, §§ 67(a), 78–80) <i>Confirm if the justification provided by the PPs is reasonable, based on assessment of supporting documented evidence provided by the PPs or by onsite observations.</i>	in the baseline. <i>Conclusion:</i> The methodology doesn't allow any choice.			
B.3. Baseline Identification <i>The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.</i>				
B.3.1. What possible baseline scenarios have been considered? (EB 55 Annex 1, §§ 67(b), 83) <i>Fill in all alternatives in table A-2.</i>	<i>Description:</i> The baseline scenario is prescribed by the applied methodology: <i>Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system".</i> <i>Justification of evidences:</i> The baseline defined in the PDD has been compared to the prescription in the methodology. <i>Conclusion:</i> No deviation could be observed. The baseline is identified in line with the methodology.	/ACM2/ /PDD/	OK	OK
B.3.2. Is the list of alternatives complete?	<input checked="" type="checkbox"/> All plausible alternative scenarios listed in the approved methodology have been considered. In the course of	/ACM2/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 67(b), 83) <i>Describe how it was validated that all alternatives are plausible and no plausible alternative is excluded from the consideration</i>	document review and site visit, it has been validated that no other alternatives which supply comparable outputs and / or services are to be taken into consideration. Thus no plausible scenario has been omitted. <input type="checkbox"/> The following alternative scenarios/options have been omitted. Corresponding CAR(s)/CL(s) has /have been issued	/PDD/		
B.3.3. What has been identified as the baseline scenario? (EB 55 Annex 1, §§ 81–82, 86) <i>Describe the chosen BL scenario, taking into consideration the technology that would be employed and / or the activities that would take place in the absence of the proposed CDM project activity.</i>	<i>Description: Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system".</i> <i>Justification of evidences:</i> This is in line with the methodology, which has been checked by the validation team. <i>Conclusion:</i> The baseline scenario has been identified correctly.	/ACM2/	OK	OK
B.3.4. Has the baseline scenario been determined according to the methodology? (EB 55 Annex 1, §§ 82, 87(e)) <i>Describe how it is validated that the identification of the most plausible baseline scenario is carried out in accordance with the applied methodology and applied methodological tools. Please refer to table A-2.</i>	For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2. <input checked="" type="checkbox"/> The determination has been carried out as per the procedure contained in the applied methodology. <input type="checkbox"/> The following CARs / CLs have been identified with respect to the selection of the baseline scenario:	/ACM2/	OK	OK
B.3.5. Has any plausible alternative scenario been excluded?	The baseline is prescribed by the applied methodology, which is in line with paragraph 105 of the VVM.	/ACM2/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, § 83) <i>Describe how it is validated that no plausible alternative scenario has been excluded.</i>				
B.3.6. Is the identified baseline scenario reasonable and has the baseline scenario been determined using conservative assumptions where possible, including relevant references and sources? (EB 55 Annex 1, §§ 84–86(a)–(c)) <i>Describe whether the choice of the identified baseline scenario is reasonable by validating the <u>key assumptions, calculations and rationales</u> used in the PDD. Describe whether these are listed, relevant and <u>conservatively interpreted</u> in the PDD.</i>	<input checked="" type="checkbox"/> The baseline scenario is reasonable and has been determined using conservative assumptions where possible. Please refer to comments in table A-2 and sections B.3.2 to B.3.5 above. <input type="checkbox"/> The following CARs / CLs have been issued because assumptions used in the baseline determination have been assessed to be not conservative	/ACM2/	OK	OK
B.3.7. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations? (EB 55 Annex 1, §§ 85, 87(d)) <i>Describe whether the PP has shown that all relevant policies and circumstances have been identified and correctly considered in the PDD in accordance with the guidance by the Board. Pl. consider the guidance EB 22 annex 3 (regarding E+ and E- policies).</i>	<i>Description:</i> The baseline is sourced from data provided by the Ministry of Fuel and Energy of Mongolia. It is the data available at the time publishing the PDD for GSP. 5 fossil fuel fired power plants are serving the grid. This is reflected in calculating the emission factor as a combination of OM and BM. <i>Justification of evidences:</i> The determination of the baseline is in line with the requirements of the methodology and the available national data from a reliable and reputed source. <i>Conclusion:</i> Hence, TÜV NORD concluded that the baseline took into account relevant policies, trends and aspirations.	/ACM2/ /XLS/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.3.8. Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?</p> <p>(EB 55 Annex 1, § 87(a)–(c))</p> <p><i>Describe whether the documents and sources referred to in the PDD are correctly quoted and clearly referenced.</i></p>	<p><i>Description:</i> The PDD provides information about the data utilized to determine the baseline.</p> <p><i>Justification of evidences:</i> The PDD has been checked.</p> <p><i>Conclusion:</i> However, CAR B5 and CAR B6 were raised.</p>	<p>/PDD/ /ACM2/</p>	<p>CAR B5 CAR B6</p>	OK
<p>B.3.9. Does the PDD contain a <i>verifiable</i> description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity.</p> <p>(EB 55 Annex 1, § 86)</p>	<p><i>Description:</i> The PDD describes the baseline scenario.</p> <p><i>Justification of evidences:</i> The PDD has been checked.</p> <p><i>Conclusion:</i> However, CAR B5 and CAR B6 were raised.</p>	<p>/PDD/ /ACM2/</p>	<p>CAR B5 CAR B6</p>	OK
<p>B.4. Additionality Determination</p> <p><i>The assessment of additionality will be validated with focus on whether the project itself is not a likely baseline scenario.</i></p>				
<p>B.4.1. Methodology</p>				
<p>B.4.1.1. Does the PDD describe how the project is additional and does the additionality justification follow the requirements of the applied methodology and/or</p>	<p><i>Description:</i> The PDD provides the additionality justification in line with the methodology and the additionality tool. The four step approach as defined in the additionality tool is applied.</p> <p><i>Justification of evidences:</i> The content of the PDD has been</p>	<p>/ACM2/ /AT/</p>	<p>CAR B3</p>	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>methodological tools?</p> <p>(EB 55 Annex 1, §§ 67(d), 94–95)</p> <p><i>Describe how it is validated that additionality justification is carried out in accordance with the applied methodology and/or applied methodological tools. Further focus your assessment on the reliability and credibility of data, rationales and assumptions, justifications and documentations provided by the PP.</i></p>	<p>compared with the requirements of the methodology and the applied tool.</p> <p><i>Conclusion:</i> The PDD includes an additionality justification, however CAR B3 was raised..</p>			
B.4.2. Consideration of CDM before project start				
<p>B.4.2.1. Is the project starting date reported in accordance with the CDM glossary of terms?</p> <p>(EB 55 Annex 1, § 104(a))</p> <p><i>Assess why the chosen starting date can be considered as the earliest date at which either the implementation or construction or real action of a project has begun or will begin.</i></p> <p><i>Check that no other activities related to the project that happened before the identified start date can be considered as start date. In this context please also take into consideration infrastructural expenses if they are relevant (in terms of costs and importance for the project implementation) in the specific context of the project activity.</i></p>	<p><i>Description:</i> The starting date reported in the PDD is 2008-04-01.</p> <p><i>Justification of evidences:</i> The date could not be backed-up with documented evidence.</p> <p><i>Conclusion:</i> Hence, the validation team did not accept it and raised CAR B2.</p>	/PDD/	CAR B2	OK
<p>B.4.2.2. In case the project start date is on or after 2nd August 2008 has the PP informed the</p>	<p><i>Description:</i> Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</p>	/PDD/	CAR B2	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>DNA and UNFCCC about the intension to seek CDM status?</p> <p>(EB 55 Annex 1, §§ 99–101)</p> <p><i>Describe whether such a notification has been provided by the project participants within six months of the project activity start date; if NOT it shall be determined that the CDM was not seriously considered.</i></p>	<p><i>Justification of evidences: -</i></p> <p><i>Conclusion: CAR B2 has been raised.</i></p>			
<p>B.4.2.3. In case the project start date is before commencing of validation and 2nd August 2008, was the incentive from the CDM seriously considered and are details given in the PDD?</p> <p>(EB 55 Annex 1, §§ 100, 102)</p> <p><i>Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.</i></p>	<p><i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i></p> <p>Furthermore the PDD does not include a timeline of implementation of the project and CDM consideration.</p> <p><i>Justification of evidences: -</i></p> <p><i>Conclusion: CAR B2 has been raised. In addition CAR B4 has been raised.</i></p>	/PDD/	CAR B2 CAR B4	OK
<p>B.4.2.4. How and when was the decision to proceed with the project taken?</p> <p><i>Describe the steps taken to validate the starting date.</i></p>	<p><i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i></p> <p><i>Justification of evidences: -</i></p> <p><i>Conclusion: CAR B2 has been raised.</i></p>	/PDD/	CAR B2	OK
<p>B.4.2.5. Is the project start date consistent with the available evidences?</p> <p>(EB 55 Annex 1, § 102)</p>	<p><i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i></p>	/PDD/	CAR B2	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>Describe the evidence assessed regarding the prior consideration of the CDM (if necessary). Describe whether the evidence to support such consideration is adequately and transparently described in the PDD.</i>	<i>Justification of evidences: -</i> <i>Conclusion: CAR B2 has been raised.</i>			
B.4.2.6. Was the decision to proceed with the project taken by a person which has the authority to do so? (EB 55 Annex 1, § 102(a)) <i>Describe the steps taken to validate this issue.</i>	<i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i> <i>Justification of evidences: -</i> <i>Conclusion: CAR B2 has been raised.</i>	/PDD/	CAR B2	OK
B.4.2.7. How was the CDM involved in the decision making process? (EB 55 Annex 1, § 102) <i>Describe why CDM was a decisive factor in the decision making process.</i>	<i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i> <i>Justification of evidences: -</i> <i>Conclusion: CAR B2 has been raised.</i>	/PDD/	CAR B2	OK
B.4.2.8. Do the evidences provided doubtlessly prove that continuous and real actions were taken in order to secure the CDM status? (EB 55 Annex 1, § 102; EB 49 Annex 22 § 7)	<i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i> <i>Justification of evidences: -</i> <i>Conclusion: CAR B2 has been raised.</i>	/PDD/	CAR B2	OK
B.4.2.9. Is the gap of documented evidences to secure the CDM status less than 3 years and are the evidences relevant for substantiating the action taken, credible,	<i>Description: Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage.</i> <i>Justification of evidences: -</i>	/PDD/	CAR B2	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
reliable and complete? (EB 49 Annex 22 § 8)	<i>Conclusion:</i> CAR B2 has been raised.			
B.4.2.10. Did implementation of the project ceased after its commencement and did implementation recommence after consideration of the CDM? (EB 51 Annex 58, § 7) <i>Describe the reasons for ceasing the project and explain why the incentive from CDM was necessary to recommence the implementation.</i>	<i>Description:</i> Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage. <i>Justification of evidences:</i> - <i>Conclusion:</i> CAR B2 has been raised.	/PDD/	CAR B2	OK
B.4.2.11. Can the CDM involvement in the decision assessed as serious? (EB 55 Annex 1, § 104(b)–(c)) <i>Describe whether or not the project would have been undertaken without the incentive of the CDM.</i>	<i>Description:</i> Since the project start date as defined in the PDD could not be evidenced, a clear assessment could not be provided in this stage. <i>Justification of evidences:</i> - <i>Conclusion:</i> CAR B2 has been raised.	/PDD/	CAR B2	OK
B.4.3. Identification of alternatives Step 1 (in case of SSC projects pl. skip steps 1 and 2 if appropriate)				
B.4.3.1. Does the list of alternatives contain the status-quo situation, the project not undertaken as a CDM project as well as all other viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?	<i>Description:</i> Several alternatives are considered in the PDD. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> The alternatives might be plausible. However, paragraph 105 of the VVM clearly indicates that if a baseline	/PDD/ /VVM/	CAR B2.1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 105–107) <i>Describe the steps taken to validate this issue on the basis of your local and sectoral knowledge.</i>	scenario is defined the same shall be applied. Hence CAR B2.1 is raised.			
B.4.3.2. Have all realistic alternatives been identified to the project? (EB 55 Annex 1, §§ 105–107) <i>Describe whether the list of alternatives is credible and complete. Describe how it is validated that the alternatives are realistic.</i>	<i>Description:</i> Alternatives have been prescribed. However, the VVM gives a clear rule on how to determine the alternatives. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> Please refer to CAR B2.1	/PDD/ /VVM/	CAR B2.1	OK
B.4.3.3. Do all identified alternatives comply with enforced legislations? (EB 55 Annex 1, §§ 106(c)) <i>Describe the steps taken to validate this issue. Refer to the legislations.</i>	<i>Description:</i> Alternatives have been prescribed. However, the VVM gives a clear rule on how to determine the alternatives. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> Please refer to CAR B2.1	/PDD/ /VVM/	CAR B2.1	OK
B.4.4. Investment analysis Step 2 <i>In case the investment analysis as per step 2 is chosen to justify the additionality Annex 2 "Assessment of Financial Parameters" has to be used to provide additional details of the the calculation parameters..</i>				
B.4.4.1. Does the PDD provide evidence that the project would not be the most economically or financially attractive alternative or economically / financially feasible without	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
the revenues from the sale of CERs? (EB 55 Annex 1, § 108)				
B.4.4.2. Is an appropriate analysis method chosen for the project (simple cost analysis, investment comparison analysis or benchmark analysis)? (EB 55 Annex 1, § 108; EB 39 Annex 10) <i>Describe why the selected analysis method is appropriate under consideration of potential revenues and costs, potential project alternatives and potential available benchmark values.</i>	N/A		N/A	N/A
B.4.4.3. Is a clear, viewable and unprotected Excel spreadsheet available for the investment calculation? (EB 55 Annex 1, § 110; EB 51, Annex 58, §8) <i>Describe the steps taken to validate this issue.</i>	N/A		N/A	N/A
B.4.4.4. Does the period chosen for the investment analysis reflect the technical lifetime of the project activity or in case a shorter period is chosen, is the fair value of the project activity's assets at the end of the investment analysis period (as a cash inflow) included?	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, § 109; EB 51 Annex 58 § 3 – 4) <i>Describe how the technical lifetime / period chosen for calculating financial parameter(s) is reviewed and which documents were utilised in the course of review. Describe furthermore the approach used to check the inclusion of a potential fair value.</i>				
B.4.4.5. Is the (remaining) technical lifetime of existing or project equipment defined in accordance with the guidance of the <i>Tool to determine the remaining lifetime of equipment?</i> (EB 50 Annex 15)	N/A		N/A	N/A
B.4.4.6. Is the fair value calculated in accordance with local accounting regulations (where available) or international best practice? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 4) <i>State the accounting regulations applied for calculating the fair value and describe why these are applicable under the project specific circumstances. Describe potential mismatches between regulations and the approach applied for calculating the fair value.</i>	N/A		N/A	N/A
B.4.4.7. Is the book value as well as the expectation of the potential profit or loss included in the fair value calculation?	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, § 109; EB 51 Annex 58, § 4)				
B.4.4.8. Are depreciation and other non-cash related items added back to net profits for the purpose to calculate the financial indicator? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 5)	N/A		N/A	N/A
B.4.4.9. Is taxation excluded in the investment analysis or is the benchmark intended for post tax comparisons? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 5)	N/A		N/A	N/A
B.4.4.10. Were the input values used in the investment analysis valid and applicable at the time of the investment decision? (EB 55 Annex 1, § 109,112; EB 51 Annex 58, § 6) <i>In case the basis for input values is a Feasibility Study Report (FSR) describe how it has been ensured that the period in time between the finalisation of the FSR and the investment decision is sufficiently short so that it is unlikely that input values would have materially changed. Further confirm the consistency of values in FSR and PDD.</i>	N/A		N/A	N/A
B.4.4.11. Is the plant load factor (PLF) chosen in a conservative manner, taking into account that the PLF may be different in the framework of demonstrating additionality	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
and calculating the ex-ante ER? (EB 48, Annex 11)				
B.4.4.12. In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of project IRR? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 9)	N/A		N/A	N/A
B.4.4.13. In cases where a post-tax benchmark is applied please ensure that actual interest payable is taken into account in the calculation of income tax. (EB 51 Annex 58, § 11) <i>As per the guidance it is recommended to select a pre tax benchmark in order to Describe the steps taken in assessing this requirement.</i>	N/A		N/A	N/A
B.4.4.14. In case of equity IRR: Is the part of the investment costs, which is financed by equity considered as net cash outflow and is the part financed by debt excluded in net cash outflow? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 10)	N/A		N/A	N/A
B.4.4.15. Is the type of benchmark chosen appropriate for the type of IRR calculated	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(e.g. local commercial lending rates or weighted average costs of capital for project IRR; required/expected returns on equity for equity IRR)? (EB 55 Annex 1, § 111; EB 51 Annex 58, §§12 – 15) <i>In case risk premiums are applied precisely describe its suitability to reflect the risks associated with the project activity, considering the project type and market situation.</i>				
B.4.4.16. Is the benchmark value suitable for the project activity and is it reasonable to assume that no investment would be made at a rate of a lower return than the benchmark? (EB 55 Annex 1, § 109; EB 51 Annex 58, §§13 – 15) <i>Describe whether it is reasonable to assume that a lower rate of return would consequently result in the baseline scenario.</i>	N/A		N/A	N/A
B.4.4.17. Is it ensured that the project cannot be developed by other developers than the PP? (EB 55 Annex 1 § 109; EB 51 Annex 58, §§ 13 – 14) <i>Describe why the benchmark does not include the subjective profitability expectations or risk profile of the project developer. If applicable assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects.</i>	N/A		N/A	N/A
B.4.4.18. Was the benchmark consistently used in	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
the past for similar projects with similar risks? (EB 55 Annex 1, § 112(c))				
B.4.4.19. Does the PDD and related spreadsheets contain a sensitivity analysis and does the same contain variation of parameters which may vary throughout the project lifetime, (EB 55 Annex 1, §§ 109–110(e); EB 51 Annex 58, § 17–18) <i>Describe relevance of parameters used in the sensitivity analysis as well as their likeliness to vary during the project's lifetime. Parameters which are fixed on the basis of contracts, PPAs etc. may not be subject to variation and not adequate.</i>	N/A		N/A	N/A
B.4.4.20. Were only variables that constitute more than 20% of either total project costs or total project revenues subjected to reasonable variation? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 17)	N/A		N/A	N/A
B.4.4.21. Have parameters, constituting less than 20% of total project costs or revenues, been identified with potential material impact on the financial parameter?	N/A		N/A	N/A

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, § 109; EB 51 Annex 58, § 17) <i>Describe whether those parameters are considered in the sensitivity analysis?</i>				
B.4.4.22. Is the range of variation reasonable in the specific context of the project activity, taking into consideration historic trends in the business sector? (EB 55 Annex 1, § 109; EB 51 Annex 58, § 18) <i>Describe whether the range of variation is appropriate with focus on historic developments, e.g. price of oil / labour etc., energy potential in the region in question.</i>	N/A		N/A	N/A
B.4.5. Barrier analysis Step 3 or SSC additionality assessment				
B.4.5.1. Are there any barriers given which have a clear and direct impact on the financial returns of the project? (EB 55 Annex 1, §§ 115, 134, 137) <i>In case of LSC projects those issues cannot be considered as barriers and shall be assessed in the investment analysis. In case of SSC projects the same fundamentals as for LSC projects shall apply, i.e. the assessment of the investment barrier according to EB 51 Annex 58.</i>	<i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to prevailing practice is applicable. In addition technology as well as investment barrier have been identified. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> The barriers identified in the PDD seem to be reasonable to the validation team. However, sufficient evidence has not been provided by PP to justify the barriers. Hence, the validation team raised CAR B3.	/PDD/	CAR B3	OK
B.4.5.2. Are the barriers described risk related (e.g technology failure, other performance	<i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to	/PDD/	CAR B3	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
related risks)? (EB 55 Annex 1, §§ 116, 134, 137) <i>Are there other barriers or barriers due to prevailing practice existent which would have led to higher emissions?</i>	prevailing practice is applicable. In addition technology as well as investment barrier have been identified. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> CAR B3 has been raised.			
B.4.5.3. Has the unavailability of means of finance for the project been described and adequately substantiated? Do evidences doubtlessly prove that the financing of the project was assured only due to the benefit of the CDM? (EB 55 Annex 1, §§ 116, 137, EB 50 Annex 13, § 9)	<i>Description:</i> The unavailability of finance has not been considered as barrier. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> The unavailability of finance has not been considered as barrier. This is not applicable.	/PDD/	N/A	N/A
B.4.5.4. How is it justified and evidenced that the barriers given in the PDD are real? (EB 55 Annex 1, § 116(a))	<i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to prevailing practice is applicable. In addition technology as well as investment barrier have been identified. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> CAR B3 has been raised.	/PDD/	CAR B3	OK
B.4.5.5. How is it justified that one or a set of real barriers prevent(s) the implementation of the project activity and do not prevent the implementation of at least one of the alternatives? (EB 55 Annex 1, § 116(b))	<i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to prevailing practice is applicable. In addition technology as well as investment barrier have been identified. <i>Justification of evidences:</i> The PDD has been checked. <i>Conclusion:</i> CAR B3 has been raised.	/PDD/	CAR B3	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.4.5.6. Does the review of relevant background information on the nature of the company(ies) and entity(ies) involved in the financing and implementation of the project sufficiently justify that the barriers related to the lack of access to capital, technologies and skilled labour are real?</p> <p>(EB 50 Annex 13, § 4)</p>	<p><i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to prevailing practice is applicable. In addition technology as well as investment barrier have been identified.</p> <p><i>Justification of evidences:</i> The PDD has been checked.</p> <p><i>Conclusion:</i> CAR B3 has been raised.</p>	/PDD/	CAR B3	OK
<p>B.4.5.7. Has it been demonstrated in an objective way how the CDM alleviates each of the identified barriers to a level that the project is not prevented anymore from occurring by any of the barriers?</p> <p>(EB 50 Annex 13, § 5)</p>	<p><i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to prevailing practice is applicable. In addition technology as well as investment barrier have been identified.</p> <p><i>Justification of evidences:</i> The PDD has been checked.</p> <p><i>Conclusion:</i> CAR B3 has been raised.</p>	/PDD/	CAR B3	OK
<p>B.4.5.8. Would provision of additional financial means lead to the mitigation of the barrier(s) demonstrated?</p> <p>(EB 50 Annex 13, § 7)</p> <p><i>Describe why provision of additional financial means would not lead to mitigation of the barrier(s) demonstrated and hence analysing the project's additionality within the framework of an investment analysis is inappropriate. .</i></p>	<p><i>Description:</i> The PP identified that the project is the first-of-its-kind in Mongolia. Hence, as per the additionality tool the barrier due to prevailing practice is applicable. In addition technology as well as investment barrier have been identified.</p> <p><i>Justification of evidences:</i> The PDD has been checked.</p> <p><i>Conclusion:</i> CAR B3 has been raised.</p>	/PDD/	CAR B3	OK
<p>B.4.6. Common practice analysis Step 4 (in case of SSC projects skip this step)</p>				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>B.4.6.1. Is the defined region for the common practice analysis appropriate for the technology/industry type?</p> <p>(EB 55 Annex 1, § 120(a))</p> <p><i>Describe why the project activity is not common practice in a transparent and unambiguous manner. If a region other than the entire host country is chosen, describe why this region is more appropriate.</i></p>	<p><i>Description:</i> The project has been identified as first-of-its-kind. In accordance to the latest additionality tool a common practice analysis is not necessary.</p> <p><i>Justification of evidences:</i> The additionality tool has been checked to confirm this.</p> <p><i>Conclusion:</i> However, since the prevailing practice barrier needs to be further substantiated a final assessment on the common practice analysis cannot be conducted. CAR B3 has been raised.</p>	/PDD/ /AT/	CAR B3	OK
<p>B.4.6.2. To what extent similar projects have been undertaken in the relevant region?</p> <p>(EB 55 Annex 1, § 120(b))</p>	<p><i>Description:</i> The project has been identified as first-of-its-kind. In accordance to the latest additionality tool a common practice analysis is not necessary.</p> <p><i>Justification of evidences:</i> The additionality tool has been checked.</p> <p><i>Conclusion:</i> CAR B3 has been raised.</p>	/PDD/ /AT/	CAR B3	OK
<p>B.4.6.3. In case similar projects are identified, are there any key differences between the proposed project and existing or ongoing projects and what kind of differences are observed?</p> <p>(EB 55 Annex 1, § 120(c))</p>	<p><i>Description:</i> The project has been identified as first-of-its-kind. In accordance to the latest additionality tool a common practice analysis is not necessary.</p> <p><i>Justification of evidences:</i> The additionality tool has been checked.</p> <p><i>Conclusion:</i> CAR B3 has been raised.</p>	/PDD/ /AT/	CAR B3	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.5. Ex-Ante Calculation of GHG Emission Reductions <i>It is assessed whether the ex-ante calculations of project emissions, baseline emissions, leakage emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified. Furthermore calculation of emission reductions shall be assessed.</i>				
B.5.1. Are the equations applied correctly according to the applied approved methodology? (EB 55 Annex 1, §§ 67(c), 89–90, 92) <i>Describe clearly the steps taken to assess whether the methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. Further take into consideration that all estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.</i>	<input type="checkbox"/> The equations applied for calculation are correctly applied according to the approved methodology. <input checked="" type="checkbox"/> The following mistakes have been identified in this context: <i>Description:</i> The PDD includes a description how the ER are achieved and which formulae are applied. <i>Justification of evidences:</i> The PDD has been checked and the content has been compared to the methodology and grid tool. <i>Conclusion:</i> In this case the following has been observed and CAR B5 has been raised.	/PDD/ /ACM2/	CAR B5	OK
B.5.2. In case the methodology allows for different methodological choices, are the equations applied properly justified and have they been used reflecting the other methodological choices (i.e. baseline identification)?	<i>Description:</i> The applied methodology does not provide for different choices to calculate the emission reductions for this new installation. However, the applied tool to calculate a grid emission factor does allow for different choices. These have not been appropriately indicated in the PDD. <i>Justification of evidences:</i> The content of the PDD has been	/PDD/ /ACM2/	CAR A6	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 90–91) <i>Assess the correct selection and application of methodological choices. Describe whether proper justification has been provided (based on the choice of the baseline scenario, context of the project activity and other evidence provided) and whether the correct equations have been used reflecting the relevant methodological choices.</i>	compared to the stipulations defined in the methodology and the applied tool. <i>Conclusion:</i> It has been observed that the information is not clearly following the grid tool. Hence, CAR A6 has been raised:			
B.5.3. Have conservative assumptions been used when calculating the project emissions? (EB 55 Annex 1, §§ 90–91) <i>Describe clearly the steps taken to assess whether all the assumptions and data used by the PP are listed in the PDD including references and sources and are conservatively interpreted in the PDD.</i>	<i>Description:</i> As per the methodology project emissions are not accounted for wind power projects under ACM0002. <i>Justification of evidences:</i> The methodology has been checked to confirm this. <i>Conclusion:</i> It is correct that project emissions are not taken into account.	/ACM2/ /PDD/	OK	OK
B.5.4. Does the implementation of the project activity lead to GHG emissions within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission reductions, which are not addressed by the methodology? (EB 55 Annex 1, § 77)	<i>Description:</i> The PDD does not provide information on this. <i>Justification of evidences:</i> The PDD has been checked and compared to the stipulations of the methodology and experiences by the validation team achieved in many wind power projects. <i>Conclusion:</i> For wind power projects such GHG emissions are not expected.	/PDD/ /ACM2/	OK	OK
B.5.4.1. Has a plant load factor (PLF) been defined ex-ante and considered for determination of baseline emissions?	<i>Description:</i> A plant load factor has not been explicitly mentioned in the PDD. However, considering the values of total installed capacity (50 MW) and total electricity generation (116 GWh) as provided in section A.2. the PLF calculated is 26.5 %.	/PDD/	CAR B1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 48 Annex 11, §§ 1, 3–4) <i>Describe why the PLF is conservative in the framework of calculating emissions reductions and whether the PLF is the same in the framework of demonstrating additionality by applying the investment analysis. Note, in order to be conservative in both cases the PLF may be different.</i>	<i>Justification of evidences:</i> Evidence for this could not be provided. Furthermore as per the latest guidance for completing a PDD the load factor needs to be explicitly mentioned in section A.4.3. <i>Conclusion:</i> Hence the validation team raised CAR B1.			
B.5.5. Are all data sources and assumptions appropriate and parameters which remain fixed throughout the crediting period correct, applicable to the project and will lead to a conservative estimation of emission reductions? (EB 55 Annex 1, § 91) <i>Describe clearly the steps taken to assess whether the values used for the fixed parameters are considered reasonable, correct and applicable in the context of the project activity. Check esp. chapter 6.2 of the PDD.</i>	<i>Description:</i> The PDD includes information that the emission factor is calculated ex-ante and therefore remains fixed throughout the crediting period. <i>Justification of evidences:</i> The content of the PDD has been compared to stipulations in the methodology and the grid tool. <i>Conclusion:</i> Even though it has been clearly determined that the EF will be fixed throughout the crediting period, the validation team could not assess the base data since it was not available. Furthermore the PP utilized an outdated version of the grid tool. Therefore CAR A6 has been raised.	/PDD/ /ACM2/	CAR A6	OK
B.5.6. Are all ex-ante calculation values for monitoring parameters (as defined as per chapter B.7.1) reasonable? (EB 55 Annex 1, § 91) <i>Describe clearly the steps taken to assess whether the values used for the monitoring parameters are considered reasonable, applicable and conservative in the context of the project activity</i>	<input type="checkbox"/> All “Values of data to be applied for the purpose of calculating expected emissions reductions” are considered to be reasonable, applicable and conservative. <input checked="" type="checkbox"/> The following mistakes have been identified in this context: The only parameter determined ex-ante which is to be monitored during the crediting period is the net electricity generation. The validation team could not verify the value.	/PDD/ /ACM2/	CAR B1	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	Hence, CAR B1 has been raised.			
<p>B.5.7. Are the emission reductions real, measurable and give long-term benefits related to the mitigation of climate change.</p> <p><i>Describe the steps taken to validate this issue.</i></p>	<p><i>Description:</i> The emission reductions are a result of additional capacity from the renewable source wind added to the fossil fuel based Central Electricity System of Mongolia. The electricity supply is measured by standard electricity meters.</p> <p><i>Justification of evidences:</i> The project design has been verified with the construction license (wind farm) and the power purchase agreement (grid connection and electricity metering). All documents have been assessed as reliable since they are signed and stamped.</p> <p><i>Conclusion:</i> The validation team concluded that the emission reductions are real, measurable and long-term.</p>	<p>/PDD/ /CL/ /PPA/</p>	OK	OK
<p>B.6. Monitoring of Emission Reductions</p> <p><i>It is assessed whether the monitoring plan is appropriate for the project activity and in line with the applied methodology.</i></p>				
<p>B.6.1. Are all monitoring parameters required by the applied methodology contained in the monitoring plan?</p> <p>(EB 55 Annex 1, §§ 67(e), 121, 123(a), 124)</p> <p><i>Assess whether all applicable parameters listed in the methodology are included in the monitoring plan.</i></p> <p><i>Pl. check further whether the selection of parameters not to be monitored (section B.6.2) is appropriate and in line with</i></p>	<p><i>Description:</i> The monitoring parameter required is the net electricity generation. This parameter has been included in the relevant PDD section.</p> <p><i>Justification of evidences:</i> The PDD content has been compared to the methodology.</p> <p><i>Conclusion:</i> Even though the correct parameter has been indicated, the PP should follow the requirements of the applicable version of the methodology. Hence, CAR B7 has been raised.</p>	<p>/PDD/ ACM2/</p>	CAR B7	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p><i>the applied methodology.</i></p> <p><i>In case of different approaches can be chosen acc. to the methodology assess whether the selection of parameters is justified and correct.</i></p>				
<p>B.6.2. Are the means of monitoring of all parameters contained in the monitoring plan feasible and in accordance with the requirements of the applied methodology?</p> <p>(EB 55 Annex 1, § 123(a)–(b), 124)</p> <p>Assess whether the provided information for all parameters w.r.t.</p> <ul style="list-style-type: none"> a) Label (name of the data / parameter) b) data unit c) description d) source of data e) measurement equipment / method / procedure f) monitoring frequency g) QA/QC procedures <p><i>are appropriately described and in compliance with the requirements of the methodology..</i></p>	<p><i>Description:</i> In general, means are appropriately addressed.</p> <p><i>Justification of evidences:</i> The PDD has been checked and compared to the requirements in the methodology and tool.</p> <p><i>Conclusion:</i> However, it should be noted that the version of the methodology has been changed from 6 to 12.1.0. Hence, the monitoring needs to be adjusted to the latest requirements. Therefore CAR B7 was raised.</p>	/ACM2/ /PDD/	CAR B7	OK
B.6.3. Have all means of implementing the monitoring plan, e.g. equations necessary for	<i>Description:</i> In general, means of implementing are appropriately addressed.	/PDD/ /ACM2/	CAR B7	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>ex-post emission reduction calculation, been described clearly and in line with the methodology?</p> <p>(EB 55 Annex 1, §§ 123(b), 124)</p> <p><i>Check whether all necessary equations have been provided in the PDD. Pl. consider that ex-post and ex-ante calculations might be different.</i></p> <p><i>Please consider that additional equations might be necessary to calculate auxiliary parameters.</i></p>	<p><i>Justification of evidences:</i> The PDD has been checked and compared to the requirements in the methodology and tool.</p> <p><i>Conclusion:</i> However, it should be noted that the version of the methodology has been changed from 6 to 12.1.0. Hence, the monitoring needs to be adjusted to the latest requirements. Therefore CAR B7 was raised.</p>			
<p>B.6.4. Is it likely that the monitoring arrangements described in the PDD can properly be implemented in the context of the project activity?</p> <p>(EB 55 Annex 1, § 124(c))</p> <p><i>Assess whether the described monitoring arrangements are sufficient and realistic to enable a thorough monitoring. Pl. consider also special monitoring conditions, e.g. downtimes of monitoring equipment etc.</i></p>	<p><i>Description:</i> In general, monitoring arrangements are appropriately addressed.</p> <p><i>Justification of evidences:</i> The PDD has been checked and compared to the requirements in the methodology and tool.</p> <p><i>Conclusion:</i> However, it should be noted that the version of the methodology has been changed from 6 to 12.1.0. Hence, the monitoring needs to be adjusted to the latest requirements. Therefore CAR B7 was raised.</p>	/PDD/ /ACM2/	CAR B7	OK
<p>B.6.5. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activity can be reported ex-post and verified?</p> <p>(EB 55 Annex 1, § 124(b))</p> <p><i>Please consider the description given in section B.7.2.</i></p>	<p><i>Description:</i> In general, QA/QC procedures are appropriately addressed.</p> <p><i>Justification of evidences:</i> The PDD has been checked and compared to the requirements in the methodology and tool.</p> <p><i>Conclusion:</i> However, it should be noted that the version of the methodology has been changed from 6 to 12.1.0. Hence, the monitoring needs to be adjusted to the latest requirements.</p>	/PDD/ /ACM2/	CAR B7	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>Describe which QA/QC provisions are considered. Address Quality Management System provisions, calibration and maintenance of equipment. Address further any review procedures.</i>	Therefore CAR B7 was raised.			
<p>B.6.6. Are procedures identified for data management?</p> <p>(EB 55 Annex 1, § 124(b))</p> <p><i>Check whether appropriate provisions are considered for data management including responsibilities, what records to keep, storage area of records and how to process performance documentation</i></p> <p><i>Check further the data archiving provisions for the project activity and ensure that provisions are made to archive data for the whole crediting period + 2 years.</i></p>	<p><i>Description:</i> In general, procedures for data management are appropriately addressed.</p> <p><i>Justification of evidences:</i> The PDD has been checked and compared to the requirements in the methodology and tool.</p> <p><i>Conclusion:</i> However, it should be noted that the version of the methodology has been changed from 6 to 12.1.0. Hence, the monitoring needs to be adjusted to the latest requirements. Therefore CAR B7 was raised.</p>	/PDD/ /ACM2/	CAR B7	OK
<p>C. Duration of the Project/ Crediting Period</p> <p><i>It is assessed whether the temporary boundaries of the project are clearly defined.</i></p>				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<p>C.1. Is the project's starting date clearly defined and evidenced?</p> <p>(EB 55 Annex 1, § 99)</p> <p><i>Check whether the starting date is correct. Apply the definition of the project starting date as per the "Glossary of CDM terms".</i></p>	<p><i>Description:</i> The starting date as indicated in the PDD is 2008-04-01, which is the expected starting date of construction.</p> <p><i>Justification of evidences:</i> -</p> <p><i>Conclusion:</i> Evidence substantiating this date has not been provided by the PP. Hence, CAR B2 has been raised.</p>	/PDD/	CAR B2	OK
<p>C.2. Is the project's operational lifetime clearly defined and evidenced?</p> <p><i>Check whether the project lifetime is correctly defined. Consider the guidance on the assessment of investment analysis (annex to the additionality tool).</i></p> <p><i>Check in case of phased implementation this has been reflected throughout the whole PDD incl. the financial assessment, if applicable.</i></p>	<p><i>Description:</i> The operational lifetime is 20 years.</p> <p><i>Justification of evidences:</i> Based on the expertise of the validation team this is a reasonable period.</p> <p><i>Conclusion:</i> The operational lifetime is clearly referenced and assessed as reasonable.</p>	/PDD/	OK	OK
<p>C.3. Is the start of the crediting period clearly defined and reasonable?</p> <p><i>Check whether the envisaged starting date of the crediting period is realistic, taking into consideration the times needed for validation and registration.</i></p>	<p><i>Description:</i> The starting date of crediting period is 2009-01-01.</p> <p><i>Justification of evidences:</i> -</p> <p><i>Conclusion:</i> The starting date is not reasonable chosen since the turbines have not been purchased during the validation process. Hence, the PP is requested to revise the PDD. CAR C1 has been raised.</p>	/PDD/	CAR C1	OK
D. Environmental Impacts				

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the DOE.</i>				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA)? (EB 55 Annex 1, §§ 131–133) <i>Check the host party regulations, regarding EIA.</i>	<i>Description:</i> An EIA in accordance to Mongolian law has been carried out on 4 th September 2006. <i>Justification of evidences:</i> The EIA has been checked. The authenticity is confirmed since it is signed and stamped by the Ministry of Environment of Mongolia. The evidence is therefore assessed as reliable. <i>Conclusion:</i> An EIA has been conducted in line with Mongolian requirements.	/EIA/	OK	OK
D.1.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been carried out and if applicable duly approved? (EB 55 Annex 1, §§ 131–133) <i>Check the EIA and its approval, if applicable.</i>	<i>Description:</i> The EIA has been carried out and it is approved by the Mongolian government, i. e. the Ministry of Environment of Mongolia on 27 th September 2006. <i>Justification of evidences:</i> The approval has been checked by the validation team. The authenticity is confirmed since it is signed and stamped by the Ministry of Environment of Mongolia. The evidence is therefore assessed as reliable. <i>Conclusion:</i> The approval for the EIA is granted.	/AEIA/	OK	OK
D.1.3. Has an analysis of the environmental impacts of the project activity been sufficiently described and in line with the host party environmental legislation?	<i>Description:</i> Besides the EIA an environmental impact assessment has been conducted based on the Equator Principles since the PP searched for additional funding possibilities. The environmental impacts in both documents are considered to be low.	/EIA/ /PDD/ /AEIA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
(EB 55 Annex 1, §§ 130–132) <i>Check the PDD (section D). Check whether the project will create any adverse environmental effects.</i> <i>Check the relevant national environmental legislation.</i>	<i>Justification of evidences:</i> The EIA and the Environmental and Social Impact Assessment have been checked and compared to the information provided in PDD section D. <i>Conclusion:</i> The environmental impacts have been completely summarized in the PDD. The validation team verified that no environmental regulations are violated. The approval of the EIA is granted by the Mongolian government.	/ESIA/		
D.1.4. Are transboundary environmental impacts considered in the analysis? (EB 55 Annex 1, §§ 131–133) <i>Check the documents and local official sources / expertise regarding transboundary environmental impacts.</i>	<i>Description:</i> Transboundary impacts are not described. <i>Justification of evidences:</i> The project is located in central Mongolia near to the capital Ulaanbaatar. This has been verified by means of checking maps. <i>Conclusion:</i> Transboundary impacts are therefore not considered.	/PDD/	OK	OK
E. Stakeholder Comments <i>The DOE should ensure that stakeholder comments have been invited with appropriate media and that due account has been taken of any comments received.</i>				
E.1. Have relevant local stakeholders been invited to consultation prior to the publication of the PDD? (EB 55 Annex 1, § 128) <i>Check by means of document review and interviews with local stakeholders if and when a local stakeholder</i>	<i>Description:</i> The PDD has been published on 2007-08-23. The PP invited stakeholders to join the stakeholder meeting on August 10 th 2007 in July and August 2007. Invitees identified are governmental officials, village leaders, herders and NGOs. <i>Justification of evidences:</i> The invitation letter has been checked and Attendance lists as well as the Environmental and Social Impact Assessment have been checked. <i>Conclusion:</i> Based on the documented evidence above the	/SH/ /ESIA/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
<i>consultation process has been carried out.</i>	validation team concluded that relevant stakeholders have been invited and the consultation was carried out before uploading the PDD for GSP.			
<p>E.2. Can the local stakeholder consultation process be assessed as adequate? (EB 55 Annex 1, § 129(a)–(c))</p> <p><i>Describe what assessment steps have been undertaken to assess the adequacy of the stakeholder consultation process. Give a final opinion on the adequacy.</i></p> <p><i>Please consider the following requirements in this context:</i></p> <p><i>(a) Comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity, have been invited;</i></p> <p><i>(b) The summary of the comments received as provided in the PDD is complete;</i></p> <p><i>(c) The project participants have taken due account of any comments received and have described this process in the PDD.</i></p>	<p><i>Description:</i> Stakeholders have been invited to a meeting where they could express their concerns. Some concerns have been raised referring to noise, sight spoiling and impact on wildlife.</p> <p><i>Justification of evidences:</i> The invitation, the attendance list as well as photos and the Environmental and Social Impact Assessment have been checked.</p> <p><i>Conclusion:</i> The concerns have been taken into account by the PP and responded during the meeting. It could be shown that the site is far from residential areas and bird migratory routes and rest area from animals. The project has been implemented following the Equator Principles. Hence, TÜV NORD concluded that the process is adequate.</p>	/SHP/ /ESIA/	OK	OK

ANNEX 2: ASSESSMENT OF BASELINE IDENTIFICATION

Table A-2: Assessment of Baseline Identification (EB 55 Annex 1 §§83 – 86)

<input type="checkbox"/>	Baseline is not identified
<input checked="" type="checkbox"/>	Assessment of baseline see below

Baseline Alternatives identified	Inline with the Methodology?	Eliminated	Reasons for elimination / non-elimination from list of alternatives	Evidence used	DOE Assessment	
					Appropriateness of elimination	Assessment of validation team (results and means of assessment)
Equivalent amount of electricity supplied by the proposed project previously provided by grid connected power plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Only 1 alternative is provided by the applied methodology ACM0002 (version 12.1.0).	/ACM2/	<input type="checkbox"/>	<p>The validation team could verify that the proposed project is a wind farm connected to the Central Energy System of Mongolia. Hence, the proposed project substitutes electricity which is provided by the grid in the business-as-usual scenario. The electricity supplied in the baseline scenario is provided by 5 CHP plants operating on lignite. The baseline scenario has been verified with the following documents:</p> <ul style="list-style-type: none"> - Power purchase agreement^{/PPA/} - Construction License^{/CL/} - Relevant Sources as provided in ER calculation^{/XLS/}

ANNEX 3: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-3: Assessment of Financial Parameters (EB 55 Annex 1, §§ 111, 112, 114/ in case financial parameters stem from FSR §113,)

<input checked="" type="checkbox"/>	No financial parameters are used for additionality justification					
<input type="checkbox"/>	Assessment of all financial parameters see below					
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	DOE ASSESSMENT	
					Correctness of value applied	Comment
					<input type="checkbox"/>	

ANNEX 4: ASSESSMENT OF BARRIER ANALYSIS

Table A-4: Assessment of Barrier Analysis (EB 55 Annex 1, §118)

<input type="checkbox"/>	No barrier parameters are used for additionality justification
<input checked="" type="checkbox"/>	Assessment of barriers see below

Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
Prevailing practice	The proposed project is the first commercially operated grid-connected wind farm	/ADD/	<input checked="" type="checkbox"/>	<p>The barrier due to prevailing practice that the project is first-of-its-kind has been substantiated with the following evidence which have been forwarded by the PP to the validation team:</p> <ol style="list-style-type: none"> 1. A document provided by the Energy Charter Secretariat from Belgium analysing the EE policies in Mongolia. The document has been published in 2011. The Energy Charter Secretariat is a conglomerate of countries, which aim to strengthen the rule of law on Energy issues. ^{/ADD-1/} 2. A document provided by the Ministry of Nature, Environment and Tourism: Mongolia Second National Communication to the UNFCCC. ^{/ADD-2/} 3. A confirmation letter from the Energy Regulatory Authority of Mongolia which confirms that the project is first wind facility in Mongolia receiving the permission for construction (construction license). ^{/ADD-3/} 4. A confirmation from the Central Region Electricity Transmission Grid a governmental organisation granting the power purchase agreement also confirming that this project is the first wind farm supplying electricity to the grid. ^{/ADD-4/} 5. An analysis of the Renewable Energy Market in Mongolia provided by Renewable Energy and Energy Efficiency Partnership (Reeep) from October

Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
				<p>2005.^{/ADD-5/}</p> <p>The documents have been assessed as reliable and authentic since they are either publicly available, like the first two sources and the fifth source or are provided by governmental authorities duly signed and stamped.</p> <p>The validation team conducted a cross-check with the publicly available annual report of the World Wind Energy Association: Wind Energy International 2011/2012. In this report it is clearly stated that no grid connected wind farm is currently operating in Mongolia.^{/WWEA/}</p> <p>The evidence provided and checked clearly shows that the project is the first-of-its-kind in Mongolia. Consequently the project is not common practice. As per the additionality tool a common practice analysis is not necessary.</p> <p>Hence, the validation team concluded that the project is additional.</p>

ANNEX 5: OUTCOME OF THE GSCP


Table A-5: Outcome of the Global Stakeholder Consultation Process

(§§ 40-42, VVM Version 1.2)

<input checked="" type="checkbox"/>	No comments were received during the global stakeholder consultation period					
<input type="checkbox"/>	Comments were received during the global stakeholder consultation period. The comments (in unedited form) and the consideration/response of the validation team are presented below:					
Comment No.:	Comment by:	Inserted on:	Subject	Comment ^{*)}	Action taken by the validation team to take due account on the comment ^{*)}	Conclusion (incl. CARs CLs or FARs)

^{*)} In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 6: STATEMENTS OF COMPETENCE OF ALL INVOLVED PERSONNEL



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Martin Saalmann


SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2013-03-31
Ji	Senior Assessor Technical Reviewer	2013-03-31
VCS	Senior Assessor Technical Reviewer	2013-03-31

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable energies	1.2.4 Solar
13.1	Waste management and disposal	13.1.1 Waste management 13.1.2 Waste water management

022 – Rev. 3, Date: 2011-10-08

022_001-F003_2011-10-08_msc 001-F003 rev1 / 2011-09-02



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Yongjun Li


SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor	2013-09-28
Validation, Verification		
VCS	Senior Assessor	2013-09-28

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
13.1	Waste Handling and Disposal

039 – Rev. 0, Date: 2011-04-12

039_001-F003 rev0 / 2010-04-12



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Ms. Katja Beyer

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor Technical Reviewer	2014-11-28
Ji	Lead Assessor Technical Reviewer	2014-11-28
VCS	Lead Assessor Technical Reviewer	2014-11-28

043 – Rev. 2, Date: 2011-11-29

043_001-F003_2011-11-29_rev2.msc 001-F003 rev2 / 2010-04-19



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Ms. Christina Stöhr

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2014-12-12
VCS	Lead Assessor	2014-12-12

200 – Rev. 1, Date: 2011-12-13

200_S01-F003_2011-12-13_rev1.doc

S01-F003 rev1 / 2010-04-19

Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Dr. Jochen Schubert

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2014-05-11
VCS	Senior Assessor (Validation, Verification) Technical Reviewer	2014-05-11

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR INCLUDE SUB-AREAS
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal
13.1	Waste handling and disposal	13.1.1 Waste management 13.1.2 Waste water management

056 – Rev. 2, Date: 2011-07-29

056_S01-F003_2011-07-29_rev2

S01-F003 rev1 / 2010-04-19

Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Ingo Klein

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2014-08-03
VCS	Senior Assessor Technical Reviewer	2014-08-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal

122 – Rev. 2, Date: 2011-08-04

122_S01-F003_2011-08-04_rev2

S01-F003 rev1 / 2011-08-02