GS- Monitoring report form

MONITORING REPORT		
Title of the project activity	CECIC Zhangbei Dayangzhuang Wind Farm Project	
UNFCCC reference number of the project activity	GS 514	
Version number of the monitoring report	01	
Completion date of the monitoring report	22/10/2015	
Monitoring period number and duration of this monitoring period	1st monitoring period, 881 days (01/01/2013-31/05/2015, first and last days included)	
Project participant(s)	CECIC Wind Power (Zhangbei) Yunwei Co. Ltd. – P.R.China (host)	
Host Party	P.R. of China	
Sectoral scope(s)	01 Energy industries (Renewable sources)	
Selected methodology(ies)	Applied methodology: ACM0002 - Consolidated baseline methodology for grid-connected electricity generation from renewable sources (version 07)	
Selected standardized baseline(s)	N/A	
Estimated amount of GHG emission reductions or net GHG removals by sinks for this monitoring period in the registered PDD	250,532tCO_2e	
Total amount of GHG emission reductions or net GHG removals by sinks achieved in this monitoring period	GHG emission reductions or net GHG removals by sinks reported up to 31 December 2012	GHG emission reductions or net GHG removals by sinks reported from 1 January 2013 onwards
	0	257,781tCO_2e

Data and parameters monitored for Gold Standard sustainable development indicators

According to the requirements of the Gold Standard, the project activity must be assessed against a matrix of sustainable development indicators. Five indicators were added to the monitoring plan.

No		1
Indicator		Number of jobs
Mitigation measure		N/A as indicator scored positive.
Repeat for each parameter		
Chosen parameter		Jobs created by the project, during operation of the project
Current situation of parameter		Without the project, local people have no such job opportunities
Estimation of baseline situation of parameter		In the baseline, local people have no such job opportunities from the project
Future target for parameter		Around 17 jobs were created for power plant operation and maintenance. Therefore, the number of jobs has been greater for the project activity as compared to the baseline scenario.
Way of monitoring	How	Checking the staff roster and employment contract.
	When	This indicator will be checked at the time of verification and/or at least once a year.
	By who	Monitored by the project owner.
Result		According to the staff roster, the project provided 17 job positions for local people during operational period.
conclusion		With the operation of the project, 17 long-term work positions are created for local people.

No		2
Indicator		Employment quality
Mitigation measure		The project owner will strictly comply with Law of the People's Republic of China on Work Safety, and abide by this Law and other laws and regulations concerning work safety and health, and redouble their efforts to ensure work safety by setting up and improving the responsibility system such as providing safety training to project staff for work safety and health and improving the safe and healthy working condition for it to guarantee work safety and health.
Repeat for each parameter		
Chosen parameter		The project will offer training for employees for the operating of the wind farm.
Current situation of parameter		Without the project, local people have no such opportunities to be trained on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
Estimation of baseline situation of parameter		In the baseline, local people have no such opportunities to be trained on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
Future target for parameter		Together with the technology supplier, the Project organise training for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
Way of monitoring	How	The project will offer training for employees for the operating the wind farm. This indicator will be monitored through Personnel records of the training schedule undertaken by employees of the wind farm. Check the working condition and take photos for each monitoring period.
	When	This indicator will be checked at the time of verification and/or at least once a year.
	By who	Monitored by the project owner.
Result		As per the training records of the project, the staffs have accepted a series of training, which contributes to the quality of employment.

No	Time of the training	Training subject	Attendees
1	16/04/2013	The emergency plan exercise	17 workers
2	20/03/2014	The emergency plan exercise	17 workers
3	26/01/2015	The safety procedures of plant operation	8 workers
4	16/02/2015	The safety procedures of plant operation	13 workers
5	30/03/2015	The safety procedures of plant operation	13 workers
6	20/04/2015	The safety procedures of plant operation	12 workers
7	25/05/2015	The safety procedures of plant operation	12 workers

The training records and relevant certificates for employees of the project are available on-site. The training records and relevant certificates for employees were provided for verification.

The certificate samples are below:

conclusion	The staffs of the project were trained on the technology and

	the monitoring of the plant operation, and the emergency and safety procedures. The training not only improves the operation level of the project, and also enhances the technical skill of the staff. The safe and healthy working condition was provided to the staffs of the project

No		3
Indicator		Emission reduction of soot, SO_2 and NO_x (ER-soot, ER-so_2, ER-no_x)
Mitigation measure		N/A as indicator scored positive.
Repeat for each parameter		
Chosen parameter		Monitored via the monitoring of the net supplied power, together with the use of publicly available data on average emissions per GWh of the thermal pwer plant in China. ER-soot = EF-soot * EGy ER-so_2= EF-so_2 * EGy ER-no_x = EF-no_x * EGy
Current situation of parameter		Equivalent electricity supplied by NCPG which is generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.
Estimation of baseline situation of parameter		The baseline of the project is defined in the registered PDD as: 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. According to Page 115 of the FSR, the per GWh emission of the soot, SO_2 and NO_x (EF-soot, EF-so_2, EF-no_x) of the baseline are: EF-soot=3.27t/GWh, EF-so_2=5.82t/GWh, EF-nox=3.27 t/GWh Therefore: ER-soot = EF-soot * EGy=3.27 * EGy ER-so_2= EF-so_2 * EGy=5.82 * EGy ER-no_x = EF-no_x * EGy=3.27 * EGy EGy (GWh) is the net supplied power during the monitoring period y.
Future target for parameter		96,530MWh/yr of clean electricity produced by the project, which replaces of fossil fuel consumption for the equivalent electricity generation and thus reduce air pollutants emissions and improve the air quality.
Way of monitoring	How	The net electricity supplied by the project will be continuously measured by electricity meters.
	When	This indicator will be checked at the time of verification and/or at least once a year.
	By who	Monitored by the project owners and cross checked measurement results with records for sold electricity.
Result		The net electricity supplied by the project to NCPG is 239,731.446MWh during the monitoring period. (01/01/2013-31/05/2015, first and last days included) So, ER-soot =3.27 * EGy=3.27*239.731446=783.922t ER-so_2= 5.82 * EGy=5.82*239.731446=1395.237t ER-no_x = 3.27 * EGy=3.27*239.731446=783.922t
conclusion		The air quality in the operation period was effectively improved against the baseline scenario.

No		4
Indicator		Water quantity
Mitigation measure		Campared to the baseline scenario where large quantities of water are used by the fossil fuel-fired power plants on the grid, in arid Hebei province the project therefore has a beneficial impact on water quality.
Repeat for each parameter		
Chosen parameter		Monitored via the monitoring of the net supplied power, together with the use of publicly available data on average water consumption per MWh of thermal power plant in China.
Current situation of parameter		N/A
Estimation of baseline situation of parameter		In the baseline, equivalent electricity supplied by NCPG which is generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.
Future target for parameter		The project does not impact the water quality as no significant water pollutants are released. The negative impact of the project to the local water quality is negligible.
Way of monitoring	How	Water consumption per unit electricity generation is an important index in measuring the utilization level of water resources in power generation. In 2002, water consumption of thermal power plant in 3.54t/MWh. (http://www.sp-china.com/environmental/a.html)
	When	This indicator will be checked at the time of verification and/or at least once a year.
	By who	Monitored by the project owners and cross checked measurement results with records for sold electricity.
Result		The net electricity supplied by the project to NCPG is 239,731.446MWh during the monitoring period. (01/01/2013-31/05/2015, first and last days included) So, Water quantity=3.54*239,731.446=848649.3188t
conclusion		As fixed in the registered GS PDD, water consumption of thermal power plant is 848649.3188t.

No		5
Indicator		Mitigation measures
Mitigation measure		Effective measurements have been taken to mitigate the influence to local environment in accordance with the requirements of EIA, such as sprinkling, vegetation planting, time and area constrain of construction, collection and management of waste, etc.
Repeat for each parameter		
Chosen parameter		Mitigation measures during construction period to avoid the influence to local environment.
Current situation of parameter		N/A
Estimation of baseline situation of parameter		N/A
Future target for parameter		N/A
Way of monitoring	How	Effective measurements have been taken to mitigate the influence to local environment in accordance with the requirements of EIA, such as sprinkling, vegetation planting, time and area constrain of construction, collection and management of waste, etc.
	When	This indicator will be checked at the first verification and the Environmental Test and Acceptance Report will be reported in the first Monitoring Report.
	By who	Monitored by the project owners
Result		According to the Environmental Test and Acceptance Report, necessary mitigation measurements required in the EIA have been put in place and have been verified.

	- Experienced and talented construction team was selected; - The construction area was strictly controlled to avoid the damage to the grass; - Instead of pitch, sand stone was selected as the raw material for the construction of the road, to avoid road harden; - The occupied surface land was collected refilled, and the waste was collected and well managed; - The temporary ground was cleared up after the construction is completed. New vegetation was planted in time; - Appropriate location was selected to place the wastes, to avoid the flying dust; - Effective measurements have been taken to dispose wastes (solid, gas, water, noise) produced during the construction.
conclusion	According to the conclusion of the Environmental Test and Acceptance Report, the construction of the project has no impact to local ecological environment.

Appendix 1. Contact information of project participants and responsible persons/entities

Project participant and/or responsible person/ entity	☑ Project participant ☐ Person/entity responsible for completing the CDM-MR-FORM
Organization name	CECIC Wind Power (Zhangbei) Yunwei Co. Ltd.
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Salutation	
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Middle name	
First name	Dongjuan
Department	
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Project participant and/or responsible person/ entity	☐ Project participant ☑ Responsible person/ entity for completing the CDM-MR-FORM
Organization name	Goldchina Consultancy International Co., Ltd.
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Contact person	Zheng Zhaoning
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