



THEPARAK WIND IN THAILAND



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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The proposed project activity involves the installation of Wind Turbine Generators (WTG) in Nakhon Ratchasima of Thailand (T1 Wind farm). The project is developed by Theparak Wind Co., Ltd, Thailand. Theparak Wind Co., Ltd is a subsidiary of Wind Energy Holding Co., Ltd.

The purpose of the project activity is to generate clean electricity with utilization of wind energy. The project consists of 30 numbers of GE 137 Wind Turbine Generators (WTGs) of 3.0 MW capacities each. The project WTGs are installed in the Nongwang, Bueng Prue and Samnaktakhro sub-districts of Thepharak District, Nakhonratchasima Province in Thailand.

All the WTGs of the project activity were commissioned on 27-November-2018. The WTGs are operational continuously since commissioning without any major outages.

The electricity generated by the project is exported to the Thailand National grid. The project activity will therefore displace an equivalent amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid. Since wind power is Greenhouse Gas (GHG) emissions free, the power generated will prevent the anthropogenic gas emissions generated by fossil fuel based thermal power stations comprising coal, natural gas, diesel, and bunker oil.

There was no activity at the site prior to implementation of the project activity. Hence the scenario existing prior to the project activity is same as baseline scenario which is continual use of highly carbon intensive electricity in the regional grid.

The estimation of GHG reductions by this project is limited to carbon dioxide (CO₂) only. Thus the project activity leads to an emission reduction of 156,167 tCO₂ per year or 1,561,670 tCO₂ for the chosen crediting period of 10 years.

The current monitoring period chosen is from 01-January-2021 to 31-July-2022 (inclusive of first & last date) and the GHG emission reductions calculated are 223,564 tCO₂

1.2 Sectoral Scope and Project Type

Sectoral Scope: 01- Energy Industries (Renewable/Non-Renewable Sources)

Project Type: Type I

Methodology:

ACM0002: Grid-connected electricity generation from renewable sources, version 19.0

The project is not a grouped project

1.3 Project Proponent

Organization name	Theparak Wind Co., Ltd
Contact person	Phattarapol Pongwattanaivid
Title	Manager
Address	25 th Floor, Capital Tower, All Seasons Place, 87/1, Wireless road, Lumpini, Patumwan, Bangkok 10330, Thailand
Telephone	+66(0) 2106 8000
Email	phattarapol@windenergyholding.com

1.4 Other Entities Involved in the Project

Organization name	Kosher Climate India Private Limited
Role in the Project	Authorized Representative
Contact person	Vamsi Krishna
Title	Global Business Head
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Telephone	+91-99453 43475
Email	vamsi@kosherclimate.com , narendra@kosherclimate.com

1.5 Project Start Date

The start date for this project is 27-November-2018. This is the date of commissioning of the project.

1.6 Project Crediting Period

1st Crediting period: 27-November-2018 to 26-November-2028.

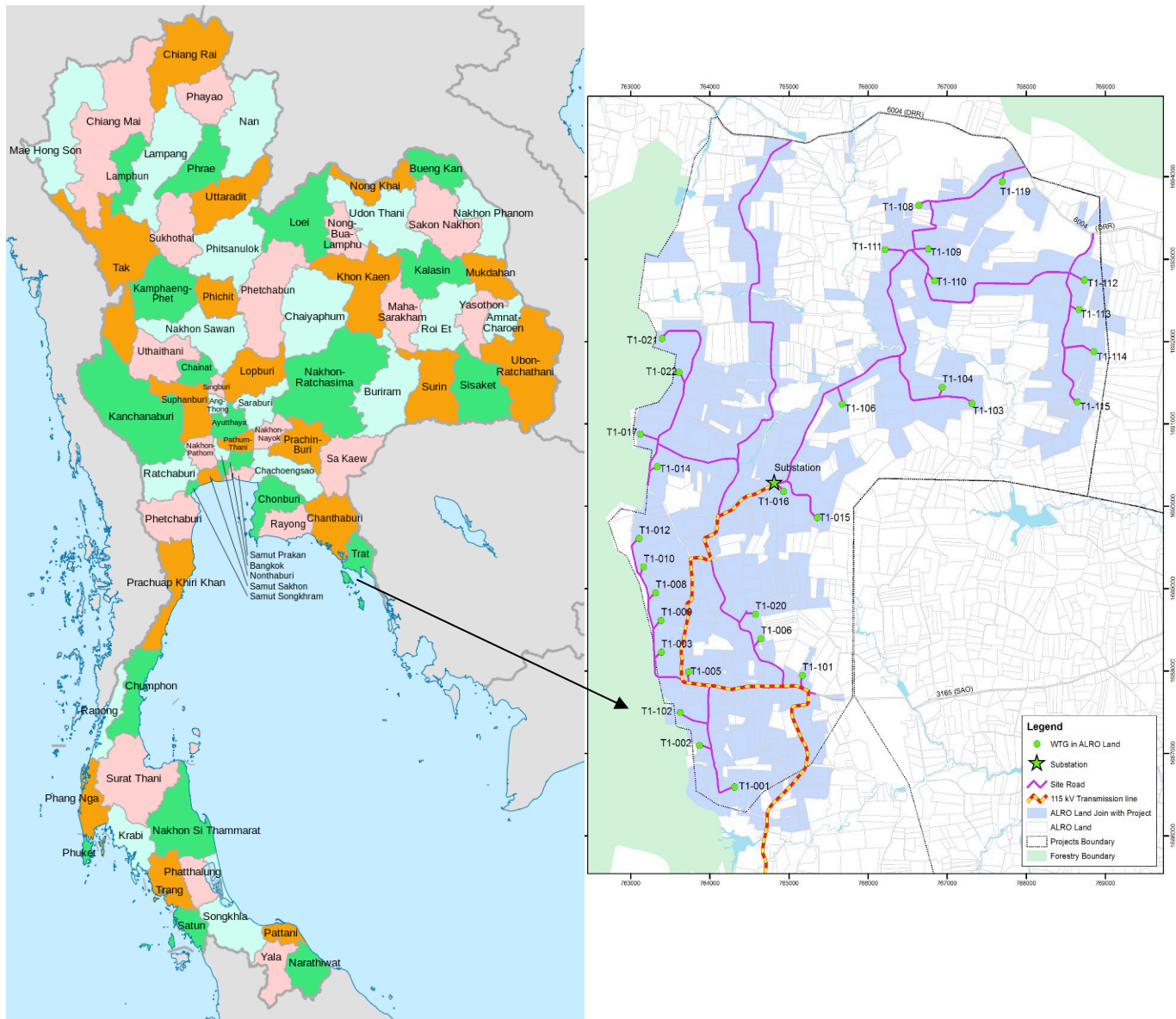
Length of 1st Crediting period: 10 years

The project activity adopts renewable crediting period of 10 years period which can be renewed for maximum 2 times

1.7 Project Location

The project activity is located is located in Nakhon Ratchasima province of Thailand. The geo-coordinates of the project location are as follows:

S.No	WTG ID	Latitude (°N)	Longitude (°E)	Sub-District	District
1	T1-001	15.242054	101.460692	Nongwang	Thepharak
2	T1-002	15.246658	101.456607	Nongwang	Thepharak
3	T1-003	15.256905	101.452232	Nongwang	Thepharak
4	T1-005	15.254707	101.455412	Nongwang	Thepharak
5	T1-006	15.258259	101.463981	Nongwang	Thepharak
6	T1-008	15.263423	101.451656	Nongwang	Thepharak
7	T1-009	15.260403	101.452248	Nongwang	Thepharak
8	T1-010	15.266278	101.450251	Nongwang	Thepharak
9	T1-012	15.269408	101.449759	Nongwang	Thepharak
10	T1-014	15.277282	101.452011	Bueng Prue	Thepharak
11	T1-015	15.271481	101.47077	Nongwang	Thepharak
12	T1-016	15.27439	101.466817	Nongwang	Thepharak
13	T1-017	15.280839	101.450052	Bueng Prue	Thepharak
14	T1-020	15.26096	101.463356	Nongwang	Thepharak
15	T1-021	15.29131	101.452738	Bueng Prue	Thepharak
16	T1-022	15.287584	101.454698	Bueng Prue	Thepharak
17	T1-101	15.254172	101.468782	Nongwang	Thepharak
18	T1-102	15.250278	101.454386	Nongwang	Thepharak
19	T1-103	15.283807	101.489087	Bueng Prue	Thepharak
20	T1-104	15.285599	101.485604	Bueng Prue	Thepharak
21	T1-106	15.283887	101.473835	Bueng Prue	Thepharak
22	T1-108	15.305588	101.483107	Bueng Prue	Thepharak
23	T1-109	15.3008	101.484177	Bueng Prue	Thepharak
24	T1-110	15.297277	101.484846	Bueng Prue	Thepharak
25	T1-111	15.300758	101.479076	Bueng Prue	Thepharak
26	T1-112	15.297185	101.502467	Samnaktakhro	Thepharak
27	T1-113	15.293929	101.501811	Bueng Prue	Thepharak
28	T1-114	15.289313	101.50348	Samnaktakhro	Thepharak
29	T1-115	15.283835	101.50148	Samnaktakhro	Thepharak
30	T1-119	15.308079	101.492939	Bueng Prue	Thepharak



1.8 Title and Reference of Methodology

The methodology applied for the project is Approved Large Scale Consolidated Methodology: ACM0002 “Grid-connected electricity generation from renewable sources” (Version 19.0, EB100)¹

ACM0002 draws upon the following tools which have been used in the PD:

¹ <http://cdm.unfccc.int/methodologies/DB/VJI9AX539D9MLOPXN2AY9UR1N4IYGD>

- Methodological Tool: Tool to calculate the emission factor for an electricity system - Version 7.0, EB 100, Annex 6².
- Methodological Tool: Tool for the demonstration and assessment of additionality - Version 07.0.0, EB 70 Annex 8³.

1.9 Participation under other GHG Programs

The project is not registered under any other GHG programs.

1.10 Other Forms of Credit

The GHG emission reductions from the project activity are included in any emissions trading program or any other mechanism that includes GHG allowance trading

The project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates, during this monitoring period

1.11 Sustainable Development Contributions

The project supplies clean electricity from the wind power plant to the Thailand National Grid hence displacing the electricity generated from grid connected fossil fuel power plants and thereby avoiding the equivalent Carbon dioxide which is a green house gas. In the absence of the project activity, there won't be any avoidance of carbon dioxide.

During the construction and operation and maintenance of the wind power plant, it created many direct and indirect new job opportunities mostly to the local people in the project region. In the absence of the project activity, there would be no new jobs created in the project area.

As a part of regional development efforts associated with the project, during the crucial times COVID-19 outbreak, where the people around the project region are lacking the minimum need of essentials Tropical Wind Co., Ltd has funded and supported the free Covid-19 screening check points and distributed the Covid-19 Fabric facemasks, Sanitizers, Food and Drinking water to the local community in the Bung Pure and wang Yai Thong divisions of Thepark District, Nakhon Ratchasima Province. . This is funded from the revenue generated from the operation of the project activity. In the absence of project activity, there would be no revenue generated from the project and hence the activity would have not occurred in the absence of the project activity.

² http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-07-v7.0.pdf/history_view

³ <http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-01-v7.0.0.pdf>

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
Sequential row number	SDG Target number	Number and text of SDG indicator or, if no official SDG indicator is applicable, user-defined indicator	Indicate the project's contribution to the SDG Indicator (implemented activities to increase or decrease)	Brief description of the quantifiable impact of the project's activities related to the SDG indicator, during the monitoring period.	Brief description of the cumulative quantifiable impact of the project's activities related to the SDG indicator, over the project lifetime.
1)	3.b	3.b.1 Proportion of the population with access to affordable medicines and vaccines on a sustainable basis	Implemented activities to Increase	No health camp conducted during the monitoring period due to COVID. However, improved & clean house under 'Elder life promotion project' with toilets. This benefitted about 4 elders. The supporting documents are provided in Appendix II	About 60 elders benefited from the free health camp contributed from this project since commissioning.

02	3.d	3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	Implemented activities to increase	PP has distributed the safety & relief materials to people in the project region during the crucial times of COVID outbreak. Total cost spent on this activity is funded from the project revenue. Total about 350 people benefited from these activities. The details are given below; • Sponsored Samnak Takhro SAO purchase of dried foods for COVID-19 quarantine people • Support Thepharak District Office Improvement Project to prevent COVID-19 • Support Thepharak District COVID-19 paper bed. • Support Nong Waeng SAO COVID-19 survival bag Total 50,000 Baht is spent in the above activities during the reporting period Free distribution of medical essentials reduces their overall medical expenses and decreases the chance of contracting the virus and saves lives and thus contributing to SDG indicator 3.d The supporting documents are provided in Appendix II.	About 1970 people benefitted from health camps, medical essential distribution and viral fever prevention and awareness programmes since commissioning of this project
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3)	4.3	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	Implemented activities to increase	The PP support the educational & training related activities during that help in increasing the participation rate of youth and adults in formal and non-formal education and training. However, during this monitoring period no such activities are not conducted	Total 440 school children are benefitted from this activity since commissioning.
4)	4.a	4.a.1 Proportion of schools offering basic services, by type of service	Implemented activities to increase	PP has provides funds to the schools in project area to improve the following infrastructure facilities to provide basic services to schools. However, during this monitoring period no such activities are not conducted.	Total 31 students benefitted from this project since commissioning of the project
5)	7.2	7.2.1 Renewable energy share in the total final energy consumption	Implemented activities to increase	About 392,771 MWh renewable electricity has supplied to Thailand National grid during the reported period that helps to increase the renewable energy share in the energy mix. Refer section 4.2 below for the monitoring details.	Since commissioning, about 939,368 MWh renewable electricity has supplied to Thailand National grid till this monitoring that helps to increase the renewable energy share in the energy mix.
6)	8.5	8.5.2 Unemployment rate, by sex, age and persons with disabilities	Implemented activities to increase	No new employment has been created during the current monitoring period.	The project has created about 8 permanent jobs since commissioning.

7)	13.0	13.0 Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase	By supplying 388,279 MWh clean electricity to national grid, the project avoided release of 223,564 tCO ₂ in to the atmosphere during the reporting period and contributed to the sustainable development goal 13. Refer Section 5 below for the Emission Reduction calculation.	Prevented the release of 534,687 tCO ₂ into the atmosphere since its commissioning.
8)	15.3	15.3.1 Proportion of land that is degraded over total land area	Implemented activities to decrease	The PP has provided funding to support Mr. Prakob Srithong for water management around his farmland. The project contributed to restoration of 4 ha of degraded land through proper water management. Total 10,000 Bhat is spent in the above activities during the reporting period. This will increase the restoration of degraded lands, soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world. Thus the project contributes to SDG indicator 15.3.1. The supporting documents are provided in Appendix II.	Around 9 hectares of degraded land is environmentally restored by planting tree samplings since commissioning till this monitoring period.

2 SAFEGUARDS

2.1 No Net Harm

The project is a wind power generation project. There were no harm identified from the project and hence no mitigations measures are applicable.

2.2 Local Stakeholder Consultation

The stakeholder consultation meeting took place at the site office on 2nd September 2019. Invitation notices were put up in the local government offices at least a week in advance of the consultations. In the introductory speech, the representatives of developer welcomed the gathering and informed the stakeholders about the project activity; project's associated benefits with respect to CO₂ emission reductions and explained the purpose of conducting the stakeholder meeting in order to gather the views and comments of the local stakeholders on the project activity. Subsequent to the introductory speech, comments were received from the stakeholders.

No negative feedback was received from any of the stakeholders. All of them supported the initiative and appreciated the project proponent for carrying out such an activity in the region. Hence no comments warranting action from the project proponent were received

On-going communication with local stakeholders

PP has a mechanism to receive feedbacks/grievances from local stakeholder continuously. PP has kept the grievance register/forms at the site office which is easily accessible to local public. Stakeholders can write their feedback or grievances in the register/forms. The site in-charge will take necessary action on the grievances. If any grievances are not resolved, the stakeholders can escalate the issue to the top management by writing email to napat@windenergyholding.com.

No grievances received during the monitoring period.

2.3 AFOLU-Specific Safeguards

Not Applicable

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

All the WTGs of the project activity were commissioned on 27-November-2018. Since commissioning, all the WTGs are operational continuously without any major outages.

During the monitoring period, there is no major events occurred that may impact the GHG emission reductions or removals and monitoring

No other changes to the project such as change in project proponent or other entity happened during the monitoring period.

3.2 Deviations

2.1.1 Methodology Deviations

There is no methodology deviations applied during the monitoring period

2.1.2 Project Description Deviations

There is no project description deviations applied during the monitoring period

3.3 Grouped Projects

The project is not a grouped project

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF _{OM, y}
Data unit	tCO ₂ /MWh
Description	Operating margin CO ₂ emission factor of Thailand National Grid
Source of data	Report 'Thailand Grid Emission Factor for GHG Reduction Project/Activity' dated 28/09/2017 Published by Thailand Greenhouse Gas Management Organisation (Public Organisation)
Value applied	0.5719
Justification of choice of data or description of measurement methods	Calculated in Report 'Thailand Grid Emission Factor for GHG Reduction Project/Activity' dated 28/09/2017 Published by Thailand Greenhouse Gas Management Organisation (Public Organisation) in

and procedures applied	line with “Tool to calculate the emission factor for an electricity system”. The value used is calculated ex-ante as generation based weighted average of last three years of the operating margin provided in the Thailand Grid Emission Factor for GHG Reduction Project/Activity’ Weighted average $= \sum_{i=1}^n (\text{Net generation in operating margin in year } i * \text{Simple operating margin in year } i) / \sum_{i=1}^n (\text{Net generation in operating margin of year } i)$
Purpose of Data	Calculation of Baseline Emission
Comments	The operating margin emission factor is a 3-year generation-weighted average (2014, 2015 , 2016). The operating Margin is calculated ex ante and fixed during the crediting period

Data / Parameter	EF _{BM,y}
Data unit	tCO2/MWh
Description	Build margin CO2 emission factor of Thailand National grid
Source of data	Report ‘Thailand Grid Emission Factor for GHG Reduction Project/Activity’ dated 28/09/2017 Published by Thailand Greenhouse Gas Management Organisation (Public Organisation)
Value applied	0.5609
Justification of choice of data or description of measurement methods and procedures applied	Calculated in Report ‘Thailand Grid Emission Factor for GHG Reduction Project/Activity’ dated 28/09/2017 Published by Thailand Greenhouse Gas Management Organisation (Public Organisation) in line with “Tool to calculate the emission factor for an electricity system”.
Purpose of Data	Calculation of Baseline Emission
Comments	The Build Margin would be calculated ex ante and fixed during the crediting period. For ex ante calculation the most recent data (2016) available has been used and the build margin is thus calculated.

Data / Parameter	EF _{grid,CM,y}
Data unit	tCO2/MWh
Description	Combined margin CO2 emission factor of Thailand National grid
Source of data	Report ‘Thailand Grid Emission Factor for GHG Reduction Project/Activity’ dated 28/09/2017 Published by Thailand Greenhouse Gas Management Organisation (Public Organisation)
Value applied	0.5692
Justification of choice of	The date has been considered in accordance to the Tool to calculate emission factor of an electricity system. The tool guides to take 75%

data or description of measurement methods and procedures applied	weightage of EFgrid,OMsimple, & 25% weightage of EFgrid,BM,y.
Purpose of Data	Calculation of Baseline Emission
Comments	The combined margin would be calculated ex-ante and fixed for the entire crediting period

4.2 Data and Parameters Monitored

Data / Parameter	EG _{facility,y4}						
Data unit	MWh/year						
Description	Quantity of net electricity supplied by the project activity to the grid in the year y						
Source of data	Monthly Energy meter reading						
Description of measurement methods and procedures to be applied	Data Type: Measured & Calculated. Monitoring equipment: Energy meters of accuracy class 0.2s Archiving Policy: Paper & Electronic. Location of Energy Meter: EGAT Substation These meters are two-way meter through which export and import data will be continuously monitored. These data will be printed and recorded on a monthly basis. Additionally, two back up meters also installed. The Net electricity supplied to the grid by each wind project is estimated as below Net electricity = Export – Import						
Frequency of monitoring/recording	Measurement: Continuous Recording: Monthly						
Value monitored	388,279 MWh						
Monitoring equipment	Energy meters: <table border="1"> <tr> <td>Meter Number</td><td>Main:51515191 Backup:51515192</td></tr> <tr> <td>Accuracy</td><td>0.2s</td></tr> <tr> <td>Location</td><td>Si Khiu 3 Substation(EGAT)</td></tr> </table>	Meter Number	Main:51515191 Backup:51515192	Accuracy	0.2s	Location	Si Khiu 3 Substation(EGAT)
Meter Number	Main:51515191 Backup:51515192						
Accuracy	0.2s						
Location	Si Khiu 3 Substation(EGAT)						

	Calibration Frequency	1 year																	
QA/QC procedures to be applied	The export reading has been crosschecked with the Invoice raised by the developer to EGAT The import reading shall be crosschecked with the invoice raised by EGAT to developer. The meter(s) shall be calibrated and maintained by the EGAT as per their own schedule, and this frequency of meter calibration is not within the control of the Project Proponent. The calibration details are given below: <table> <tr> <th>Details</th><th>Calibration date</th><th>Calibration due date</th></tr> <tr> <td rowspan="3">Main Meter Mt.No:51515191</td><td>15/03/2020</td><td>14/03/2021</td></tr> <tr> <td>22/03/2021</td><td>21/03/2022</td></tr> <tr> <td>21/02/2022</td><td>20/02/2023</td></tr> <tr> <td rowspan="3">Backup Meter Mt.No:51515192</td><td>15/03/2020</td><td>14/03/2021</td></tr> <tr> <td>22/03/2021</td><td>21/03/2022</td></tr> <tr> <td>21/02/2022</td><td>20/02/2023</td></tr> </table> As per the above calibration date, the calibration is not valid for the period 15/03/2021 to 21/03/2021. Hence, March 2021 export & import reading are adjusted with maximum possible error as described below: Adjusted Export = Recorded Export* (1-0.2%) Adjusted Import = Recorded Import *(1+0.2%)		Details	Calibration date	Calibration due date	Main Meter Mt.No:51515191	15/03/2020	14/03/2021	22/03/2021	21/03/2022	21/02/2022	20/02/2023	Backup Meter Mt.No:51515192	15/03/2020	14/03/2021	22/03/2021	21/03/2022	21/02/2022	20/02/2023
Details	Calibration date	Calibration due date																	
Main Meter Mt.No:51515191	15/03/2020	14/03/2021																	
	22/03/2021	21/03/2022																	
	21/02/2022	20/02/2023																	
Backup Meter Mt.No:51515192	15/03/2020	14/03/2021																	
	22/03/2021	21/03/2022																	
	21/02/2022	20/02/2023																	
Purpose of the data	Calculation of baseline emission																		
Calculation method	-																		
Comments	The data would be archived electronically and maintained for the entire crediting period plus two years.																		

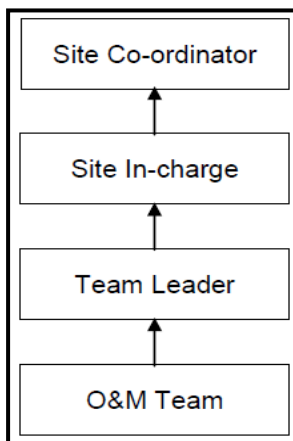
4.3 Monitoring Plan

All the three wind projects in the bundle have entered into agreement with the respective WTG Suppliers for the operation and maintenance of WTGs. And the solar project has entered into agreement with the O&M contractor for the operation and maintenance of the project. O&M contractor will provide a monthly report, which includes generation data, major breakdown events and machine availability. Project manager is responsible for recording of monthly meter

readings of export and import. Monthly power export and import data will be sent regularly to site in charge of each project separately.

Monitoring roles and responsibilities:

The data for the project is compiled by the O&M Contractor and subsequently stored by the PP, the reporting and data flows as per the below mentioned flow chart starting from Site O&M team which monitors day to day operational data and monthly recording. The reporting responsibilities for the project are described as below;



The Site In-charge will be responsible for carrying out internal auditing and QA/QC. All the values from generation record will be checked with JMR and invoices for consistency. In case there are any non-conformances identified. The Site In-charge will investigate the error and revise the record to correct it. In any case where values have slightest of variation in different records the most conservative value will be taken in the project monitoring report.

Personal Training:

The training for operating and maintaining the plant will be provided to the O&M team whenever there would be necessity or any technological up gradation.

Emergency preparedness:

In case Main meter or Check meter is found to be outside the acceptable limits of accuracy or faulty or not functioning properly, it will be repaired, recalibrated or replaced as soon as possible. In the event that the Main meter is not in service as a result of maintenance, repairs or testing, the Check meter will be used for readings

Data recording & archiving: The project proponent shall maintain data both in electronic form and hard copies. The monitored data shall be archived till 2 years after the completion of crediting period.

Monitoring Process at project site

Developer will monitor the quantity of electricity exported to the grid and imported to the project activity using the electricity meters installed in the solar power plant, which undertaken by EGAT. Both electricity meters will measure the amount of electricity continuously and record electronically. The O&M operator also manually record amount of the electricity import and export

meter to the grid from meters in the log book monthly. The monitoring reports will be checked and discussed periodically.

All monitored data will be stored for at least two years after the end of crediting period or the last issuance of CERs for this project activity, whichever occurs later.

Oversight and accountability:

The possibility of oversight is unlikely as the energy meter readings are recorded jointly by PP and EGAT which is the basis for the electricity billings. Also a backup meter is available to crosscheck any considerable difference in the energy reading.

Internal auditing and QA/QC

No requirement of internal audit for the data monitored as the data is measured by the energy meter installed by EGAT (government authority) and the reading is recorded every month by jointly by PP & representative from EGAT. The main energy meter readings are verified against the reading of the backup meter to check any considerable variation. In case, considerable variation found, then either main meter reading or check meter reading whichever lower will be considered. The electricity readings recorded are used for electricity invoicing to EGAT. Hence, the data collected is of high accuracy and authorised by EGAT.

Handling Non-conformities

Not applicable as the energy meter recording is done by EGAT and hence no internal audit will be carried out to verify the data.

Sampling approaches:

No sampling approach is used as all the monitoring parameter is monitored 100%.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

As per description earlier under this document:

$$BE_y = EG_{PJ,y} * EF_{grid,CM,y}$$

$EF_{grid,CM,y}$ is Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (tCO₂/MWh) (i.e, 0.569 2 tCO₂/MWh).

and;

$$EG_{PJ,y} = EG_{facility,y}$$

Net Electricity (EG facility, y) month wise data:

Month	Export (kWh)	Import (kWh)	Net Energy(Export-Import) (kWh)
Jan-21	2,91,61,420	50,400	2,91,11,020
Feb-21	1,97,59,290	37,200	1,97,22,090
Mar-21	1,60,02,241*	31,262*	1,59,70,979
Apr-21	1,19,37,190	50,400	1,18,86,790
May-21	1,26,54,590	69,600	1,25,84,990
Jun-21	3,01,63,010	-	3,01,63,010
Jul-21	3,00,40,340	21,600	3,00,18,740
Aug-21	2,13,63,650	57,600	2,13,06,050
Sep-21	1,01,13,660	1,02,000	1,00,11,660
Oct-21	1,75,19,380	68,400	1,74,50,980
Nov-21	3,09,35,740	52,800	3,08,82,940
Dec-21	3,78,87,410	16,800	3,78,70,610
Jan-22	1,52,54,150	74,400	1,51,79,750
Feb-22	1,99,04,332	61,200	1,98,43,132
Mar-22	1,00,20,750	97,200	99,23,550
Apr-22	2,02,60,820	37,299	2,02,23,521
May-22	2,39,30,740	22,800	2,39,07,940
Jun-22	1,86,00,120	30,000	1,85,70,120
Jul-22	1,81,76,430	33,600	1,81,42,830
Total	39,36,85,263	9,14,561	39,27,70,702

*0.2% error applied for calibration delay.

Vintage	Net Electricity $EG_{PJ,y}$ (MWh)	Grid Emission Factor $EF_{grid,CM,y}$ tCO ₂ /MWh	Baseline Emission $EG_{PJ,y} \times EF_{grid,CM,y}$
2021	266,980	0.5698	151,964
2022	125,791	0.5698	71,600
Total	392,771	0.5698	223,564

5.2 Project Emissions

The project activity involves in harnessing wind power. So, the emissions from the project are zero

5.3 Leakage

No leakage emissions have been considered and hence the leakage emission is zero.

5.4 Net GHG Emission Reductions and Removals

As per the applied methodology, emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Where,

ER_y = Emission Reduction in tCO₂e/year

BE_y = Baseline emission in tCO₂/year

PE_y = Project emissions in tCO₂e/year

LE_y = Project Leakage emission in tCO₂e/year

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2021	151,964	0	0	151,964
2022	71,600	0	0	71,600
Total	223,564	0	0	223,564

APPENDIX I: COMPARISON OF ACTUAL ER WITH ESTIMATED ER

Description	Value	Unit
Start date of Monitoring period	01-Jan-21	
End date of Monitoring period	31-Jul-22	
Total days in the Monitoring period	577	days
Estimated emission Reduction As per PDD	156,167	tCO2e
Estimated ERs for this monitoring period	246,872	tCO2e
Actual Emission Reduction	223,564	tCO2e
Difference in Emission reduction	-9.44%	

The actual emission reduction is 9.44% is less than the estimated emission reduction. Hence no justification is required

APPENDIX II: SUPPORTING DOCUMENTS FOR SDG BENEFITS

Elder Life Promotion Appreciation Letter

ที่ นม ๘๕๒๐๔/ ๗๑๐



ที่ทำการองค์การบริหารส่วนตำบลหนองแวง
อำเภอเทพรักษ์ จังหวัดนครราชสีมา ๓๐๒๑๐

๒๔ สิงหาคม ๒๕๖๕

เรื่อง ขอขอบคุณ

เรียน ผู้จัดการบริษัท เคอาร์ วัน จำกัด

สิ่งที่ส่งมาด้วย ประมวลภาพโครงการ/กิจกรรม

จำนวน ๑ แผ่น

ตามที่องค์การบริหารส่วนตำบลหนองแวง ได้ดำเนินการตามโครงการปรับสภาพแวดล้อมที่อยู่อาศัย สำหรับคนพิการ ผู้สูงอายุ ผู้ป่วยที่อยู่ในระยะกึ่งเฉียบพลัน และผู้ที่มีภาวะพึ่งพิง ประจำปี ๒๕๖๕ วิทยานางลอย กลุ่มชุมชน ทด บ้านเลขที่ ๘๒/๑ หมู่ที่ ๑๒ ตำบลหนองแวง อำเภอเทพรักษ์ จังหวัดนครราชสีมา เพื่อเป็นการพัฒนาคุณภาพชีวิต ของคนพิการ ผู้สูงอายุ ผู้ป่วยที่อยู่ในระยะกึ่งเฉียบพลัน และผู้ที่มีภาวะพึ่งพิง ให้มีคุณภาพชีวิตที่ดีขึ้น และสามารถดำรง ชีวิตประจำวันได้ดียิ่งขึ้น ช่วยเหลือตนเองได้ และลดภาระของญาติหรือผู้ดูแล นั้น

ในการนี้องค์การบริหารส่วนตำบลหนองแวง ได้ดำเนินการปรับสภาพแวดล้อมที่อยู่อาศัยฯ วิทยานางลอย กลุ่มชุมชน ทด เสร็จสิ้นตามวัตถุประสงค์เรียบร้อยแล้ว จึงขอขอบคุณ ผู้จัดการบริษัท เคอาร์ วัน จำกัด ที่ได้ สนับสนุนงบประมาณ จำนวนเงิน ๑๐,๐๐๐ บาท (หนึ่งหมื่นบาทถ้วน) ที่ให้ความอนุเคราะห์เป็นอย่างดี และหวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่านในโอกาสต่อไป

จึงเรียนมาเพื่อโปรดทราบ และขอขอบพระคุณอย่างสูงมา ณ โอกาสนี้

ขอแสดงความนับถือ

(นางเพียร แซ่ลี)

นายกองค์การบริหารส่วนตำบลหนองแวง

สำนักงานปลัด

โทร. ๐๔๔-๐๘๑๐๕๖

โทรสาร. ๐๔๔-๐๘๑๐๕๗

ไปรษณีย์อิเล็กทรอนิกส์ : saraban@nongwang.go.th

“ยึดมั่นธรรมาภิบาล บริการเพื่อประชาชน”

Please refer the following link for more supporting documents:
https://1drv.ms/u/s!AhEC8dkwyXY1g_dTNHFZNVHMAXNIImA?e=Af7iux

Sponsorship for COVID survival bag:



Donation of facemask & sanitizers



Water Management plan implemented at Mr. Prakob Srithong's farmland

