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# WIND BASED POWER GENERATION BY MYTRAH ENERGY (INDIA) LIMITED (EKIESL-VCS-JANUARY-16-01)

Document Prepared By

**LGAI Technological Center S.A.** (Applus+ Certification)

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**Summary:**

Verification purpose: LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed/2/ by "Mytrah Energy (India) Limited" to perform the 6th periodic verification of the "Wind Based Power Generation by Mytrah Energy (India) Limited (EKIESL-VCS-January-16-01)" (VCS ID 1521)/4/. The main purpose of this verification activity is to have an independent third party for the assessment of the project design, monitoring report to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements.

The purpose of the project activities to generate energy electricity by the utilization of wind energy and further selling the generated energy to the Indian grid. In this process there is no consumption of any fossil fuel and hence it does not lead to any greenhouse gas emissions. Thus, electricity would be generated through sustainable means without causing any negative impact on the environment.

Start date of the project activity is the 21-February-2014 (As per earliest date of commissioning of first WTG was commissioned under the Project activity)/01/. The monitoring period for this VCS verification is 01-June-2021 to 28-February-2022 (including both days) and the project activity achieved 241,287 $tCO_2e$ emission reductions during this monitoring period thereon displaced 245,786 MWh amount of electricity from the generation-mix of power plants connected to the Indian Grid, which is mainly dominated by thermal/fossil fuel-based power plant.

The scope of the verification is the independent and objective review of the Monitoring Report (MR)/6/. The MR is reviewed against the relevant criteria (see above) and decisions by the CDM Executive Board and VCS executive board, including the approved baseline and monitoring methodology. The verification was based on the guidance given in the CDM validation and verification standard for project activities, version 03.0/16/, review against registered PD/4/ and Final Validation report, VCS program guideline version 4.1/10/ and VCS Standard Version 4.2/10/

A risk-based approach has been followed to perform this verification activity. In the course of verification, 06 Corrective Action request (CAR) and 00 Clarification Requests (CLs) were raised and successfully closed. No FAR was raised during this verification. The review of the Monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and PP

have provided LGAI Technological Center S.A. (Applus+ Certification) with sufficient evidence to verify the fulfilment of the stated criteria of VCS.

The assessment team has employed a risk-based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the MR. The main focus of the assessment team is to identify the significant risks for the project implementation and the generation of VERs. The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring report combined.

The only purpose of the verification is its usage during the issuance process as part of the VCS project cycle. Therefore, LGAI Technological Center S.A. (Applus+ Certification) can't be held liable by any party for decisions made or not made based on the verification opinion, which will go beyond that purpose.

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for document verifications. The entire documents checked/verification conducted to arrive at positive verification conclusions.

# CONTENTS

**1 Introduction ..... 6**
1.1 Objective ..... 6
1.2 Scope and Criteria ..... 6
1.3 Level of Assurance ..... 7
1.4 Summary Description of the Project ..... 7

**2 Verification Process ..... 14**
2.1 Method and Criteria ..... 14
2.2 Document Review ..... 16
2.3 Interviews ..... 16
2.4 Site Inspections ..... 18
2.5 Resolution of Findings ..... 18
2.6 Eligibility for Validation Activities ..... 19

**3 Validation Findings ..... 19**
3.1 Participation under Other GHG Programs ..... 19
3.2 Methodology Deviations ..... 19
3.3 Project Description Deviations ..... 20
3.4 Grouped Project ..... 20

**4 Verification Findings ..... 20**
4.1 Project Implementation Status ..... 20
4.2 Safeguards ..... 22
4.3 AFOLU-Specific Safeguards ..... 23
4.4 Accuracy of GHG Emission Reduction and Removal Calculations ..... 23
4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals ..... 25
4.6 Non-Permanence Risk Analysis ..... 27

**5 VERIFICATION CONCLUSION ..... 28**

**APPENDIX 1: Documents Reviewed or Referenced (Verification) ..... 29**

**APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR) ..... 30**

**APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS ..... 34**

**APPENDIX 4: ABBREVIATIONS ..... 36**

**APPENDIX 5: CALIBRATION DETAILS ..... 36**

# 1 INTRODUCTION

## 1.1 Objective

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by "Mytrah Energy (India) Limited" to perform the 6th periodic verification of the "Wind Based Power Generation by Mytrah Energy (India) Limited (EKIESL-VCS-January-16-01)" under guideline version 4.1 and VCS standard Version 4.2. The objective of this verification activity is to have an independent third party for the assessment of the project design, Monitoring Report and Final Verification report and to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements. In particular;

- The project's baseline is assessed against ACM0002 of version 16.0/20/
- The project's monitoring plan is assessed against "ACM0002 of version 16.0/20/
- the projects 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 annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria along with VCS guideline version 4.1/10/ and standard Version 4.2/10/
- CDM validation and verification standard for project activities, Version 03.0/16/
- VCS program guideline v. 4.1/10/
- VCS standard v. 4.1/10/

Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VCUs).

## 1.2 Scope and Criteria

The scope is defined as an independent and objective review of the Monitoring report (MR)/6/ prepared as per the registered PD/4/ and registered approved methodology ACM0002 version 16.0/20/. The MR is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board and VCS standard Version 4.2/10/ and guideline version 4.1/10/, including the approved baseline and monitoring methodology ACM0002 version 16.0/20/. The verification was based on the requirements in the CDM validation and verification standard for project activities, Version 03.0/16/ and VCS program guideline version 4.1/10/ and VCS Standard Version 4.2/10/

The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the Monitoring report. In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction

calculation spread sheet. It follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement. The verification team has reviewed all the documents like commissioning certificates/1/, technical specification/3/, O&M practices, JMR/11/, invoices/11/, grievance registers/15/ etc.

## 1.3 Level of Assurance

Applus + Certification has planned and performed the verification by obtaining evidence and other information and explanations that assessment team considers necessary to give reasonable assurance that reported estimated GHG emission reductions are fairly stated. All documentary evidences were checked, Onsite visit was conducted to arrive at a verification conclusion by the assessment team.

In our opinion, the estimated GHG emissions reductions were calculated correctly on the basis of the approved baseline and monitoring methodology "ACM0002 of version 16.0"/20/ and the VCS Standard Version 4.2/10/

## 1.4 Summary Description of the Project

The project activity is a wind-based power generation project. The project activity involves installation of 233.1 MW wind project in in different states of India. The Project activity consists of 156 Wind Turbine Generators (WTGs) with capacity of 0.85 MW each located at Karnataka (112 WTGs) and Andhra Pradesh (44 WTGs) implemented by Mytrah Vayu Krishna Private Limited and 67 Wind Turbine Generator (WTGs) of 1.5 MW implemented by Mytrah Vayu (Manjira) Private Limited Tamil Nadu state in India. These are the subsidiary companies of Mytrah Energy (India) Limited. The commissioning details of the project and their location with SPVs are mentioned in the table below:

For Tamil Nadu site :-

| S.No. | Machine ID | Feeder Nos. | HTSC No. | Commissioning date | Latitude | Longitude |
|---|---|---|---|---|---|---|
| 1 | KOO - 518 | Feeder 9 | DRA 001 | 1-June-2014 | 10.695026 N | 77.570779 E |
| 2 | KOO - 1359 | | DRA 003 | 1-June-2014 | 10.688039 N | 77.592838 E |
| 3 | APY - 241 | Feeder 5 | DRA 004 | 1-June-2014 | 10.696430 N | 77.655525 E |
| 4 | APY - 416 | | DRA 005 | 1-June-2014 | 10.693031 N | 77.653586 E |
| 5 | PAR - 9 | | DRA 006 | 1-June-2014 | 10.678811 N | 77.553641 E |
| 6 | PON - 534 | | DRA 008 | 1-June-2014 | 10.676050 N | 77.571935 E |
| 7 | PON - 1043 | | DRA 009 | 1-June-2014 | 10.729955 N | 77.576547 E |
| 8 | NAL-119 | Feeder 2 | DRA 012 | 1-June-2014 | 10.652837 N | 77.545505 E |
| 9 | NAL - 81 | Feeder 5 | DRA 013 | 1-June-2014 | 10.664993 N | 77.528386 E |
| 10 | NAL - 57 | | DRA 015 | 1-June-2014 | 10.763263 N | 77.625708 E |
| 11 | MAN - 210 | Feeder 9 | DRA 017 | 1-June-2014 | 10.727352 N | 77.585324 E |
| 12 | MAN - 898 | | DRA 018 | 1-June-2014 | 10.713748 N | 77.629144 E |
| 13 | MAN - 802 | | DRA 021 | 1-June-2014 | 10.657353 N | 77.553426 E |
| 14 | KON - 556 | Feeder 4 | DRA 022 | 1-June-2014 | 10.650216 N | 77.649013 E |
| 15 | KON - 563 | | DRA 023 | 1-June-2014 | 10.699483 N | 77.688256 E |

| | | | | | | |
|---|---|---|---|---|---|---|
| 16 | KON - 590 | | DRA 024 | 1-June-2014 | 10.684740 N | 77.608212 E |
| 17 | KON - 640 | | DRA 025 | 1-June-2014 | 10.738135 N | 77.688168 E |
| 18 | KON - 658 | | DRA 026 | 1-June-2014 | 10.670208 N | 77.629071 E |
| 19 | KON - 621 | | DRA 027 | 1-June-2014 | 10.667608 N | 77.611546 E |
| 20 | KON - 501 | Feeder 3 | DRA 031 | 1-June-2014 | 10.694380 N | 77.634057 E |
| 21 | ALA - 1639 | Feeder 8 | DRA 043 | 23-June-2014 | 10.665640 N | 77.659623 E |
| 22 | ALA - 1946 | | DRA 044 | 23-June-2014 | 10.663297 N | 77.566886 E |
| 23 | NAL - 434 | Feeder 6 | DRA 049 | 23-June-2014 | 10.648711 N | 77.550586 E |
| 24 | KON - 234 | | DRA 054 | 14-July-2014 | 10.658922 N | 77.561651 E |
| 25 | PAR - 50 | Feeder 5 | DRA 007 | 1-June-2014 | 10.737605 N | 77.627596 E |
| 26 | MAN - 625 | Feeder 3 | DRA 032 | 1-June-2014 | 10.662515 N | 77.557552 E |
| 27 | MAN - 604 | Feeder 2 | DRA 033 | 1-June-2014 | 10.644345 N | 77.515043 E |
| 28 | ALA-2301/2304 | Feeder 8 | DRA 046 | 23-June-2014 | 10.720840 N | 77.587169 E |
| 29 | ALA - 1569 | | DRA 047 | 23-June-2014 | 10.759444 N | 77.604996 E |
| 30 | ALA-2352 | | DRA 048 | 23-June-2014 | 10.763189 N | 77.616268 E |
| 31 | KOO - 1157 | Feeder 2 | DRA 002 | 1-June-2014 | 10.669956 N | 77.554773 E |
| 32 | PON – 1081 | | DRA 010 | 1-June-2014 | 10.660363 N | 77.617842 E |
| 33 | MAN - 940 | Feeder 9 | DRA 019 | 1-June-2014 | 10.668934 N | 77.569253 E |
| 34 | PON - 1565 | Feeder 9 | DRA 037 | 23-June-2014 | 10.673908 N | 77.529976 E |
| 35 | PON - 1568 | Feeder 6 | DRA 038 | 23-June-2014 | 10.646536 N | 77.555893 E |
| 36 | VEL - 1936 | Feeder 8 | DRA 039 | 23-June-2014 | 10.677837 N | 77.535691 E |
| 37 | ALA - 1618 | Feeder 9 | DRA 042 | 23-June-2014 | 10.66492 N | 77.547432 E |
| 38 | PON - 908 | Feeder 8 | DRA 050 | 23-June-2014 | 10.718534 N | 77.615573 E |
| 39 | PON - 1203 | Feeder 6 | DRA 052 | 23-June-2014 | 10.71890 N | 77.581396 E |
| 40 | MAN - 963 | Feeder 7 | DRA 055 | 16-July-2014 | 10.683484 N | 77.617876 E |
| 41 | PON - 1021 | Feeder 2 | DRA 011 | 1-June-2014 | 10.773698 N | 77.61412 E |
| 42 | KUL - 652 | Feeder 5 | DRA 014 | 1-June-2014 | 10.68742 N | 77.616146 E |
| 43 | PON - 4 | | DRA 016 | 1-June-2014 | 10.692721 N | 77.615369 E |
| 44 | MAN-828 | Feeder 9 | DRA 020 | 1-June-2014 | 10.692721 N | 77.615369 E |
| 45 | KON - 618 | Feeder 3 | DRA 028 | 1-June-2014 | 10.710023 N | 77.646516 E |
| 46 | KON-395 | | DRA 029 | 1-June-2014 | 10.77361 N | 77.639413 E |
| 47 | KON-451 | Feeder 2 | DRA 030 | 1-June-2014 | 10.754682 N | 77.62652 E |
| 48 | APA-84 | Feeder 3 | DRA 034 | 1-June-2014 | 10.689743 N | 77.610703 E |
| 49 | PUN-270 | | DRA 035 | 1-June-2014 | 10.66565 N | 77.517593 E |
| 50 | PUN - 34 | | DRA 036 | 4-June-2014 | 10.673745 N | 77.54778 E |
| 51 | VEL-1702 | Feeder 9 | DRA 040 | 23-June-2014 | 10.681788 N | 77.689854 E |
| 52 | KAL-93 | Feeder 8 | DRA 041 | 23-June-2014 | 10.649539 N | 77.51747 E |
| 53 | ALA-2290 | | DRA 045 | 23-June-2014 | 10.654515 N | 77.559157 E |
| 54 | PON - 775 | Feeder 6 | DRA 051 | 23-June-2014 | 10.65057 N | 77.580673 E |
| 55 | ALA - 2260 | | DRA 053 | 23-June-2014 | 10.620784 N | 77.564648 E |

| | | | | | | |
|---|---|---|---|---|---|---|
| 56 | MET 1664 | Feeder 7 | DRA 065 | 09-January-2015 | 10.630660 N | 77.569115 E |
| 57 | NAL - 445 | | DRA 061 | 03-December-2014 | 10.684400 N | 77.563052 E |
| 58 | KOO-1036 | Feeder 6 | DRA 056 | 31-October-2014 | 10.667224 N | 77.539641 E |
| 59 | VEL-1540 | Feeder 7 | DRA 060 | 03-December-2014 | 10.683467 N | 77.536761 E |
| 60 | KOO-1174 | | DRA 058 | 31-October-2014 | 10.677765 N | 77.616831 E |
| 61 | KOO-1000 | | DRA 057 | 31-October-2014 | 10.714956 N | 77.67510 E |
| 62 | PON-1304 | | DRA 059 | 31-October-2014 | 10.659904 N | 77.651955 E |
| 63 | APY-247 | | DRA 064 | 06-January-2015 | 10.656300 N | 77.62939 E |
| 64 | KON-411 | | DRA 67 | 26-February-2015 | 10.765864 N | 77.633324 E |
| 65 | KOO - 581 | | DRA 062 | 18-December-2014 | 10.709670 N | 77.627337 E |
| 66 | VEL - 2119 | | DRA 063 | 24-December-2014 | 10.753168 N | 77.683129 E |
| 67 | ALA 1385 | | DRA 066 | 04-February-2015 | 10.762752 N | 77.680226 E |

For Andhra Pradesh site:-

| S. No. | Feeder Nos. | Location No. | | Latitude | Longitude |
|---|---|---|---|---|---|
| 1 | Feeder 1 | 508 | 21-February-2014 | 15.154461 N | 77.922135 E |
| 2 | | 510 | 21-February-2014 | 15.157268 N | 77.921522 E |
| 3 | | 511 | 21-February-2014 | 15.158979 N | 77.923322 E |
| 4 | | 513 | 21-February-2014 | 15.161872 N | 77.923761 E |
| 5 | | 514 | 21-February-2014 | 15.163549 N | 77.923292 E |
| 6 | | 515 | 21-February-2014 | 15.165388 N | 77.922815 E |
| 7 | | 516 | 21-February-2014 | 15.166574 N | 77.921892 E |
| 8 | | 517 | 21-February-2014 | 15.167997 N | 77.920787 E |
| 9 | | 518 | 21-February-2014 | 15.16929 N | 77.919977 E |
| 10 | | 519 | 21-February-2014 | 15.170968 N | 77.918066 E |
| 11 | | 520 | 21-February-2014 | 15.172449 N | 77.918783 E |
| 12 | Feeder 2 | 528 | 21-February-2014 | 15.185218 N | 77.923655 E |
| 13 | | 529 | 21-February-2014 | 15.186921 N | 77.923976 E |
| 14 | | 530 | 21-February-2014 | 15.189489 N | 77.925118 E |
| 15 | | 531 | 21-February-2014 | 15.190881 N | 77.925026 E |
| 16 | Feeder 3 | 532 | 15-March-2014 | 15.206692 N | 77.937622 E |
| 17 | | 533 | 15-March-2014 | 15.208101 N | 77.938972 E |
| 18 | | 534 | 15-March-2014 | 15.209818 N | 77.940958 E |
| 19 | | 535 | 15-March-2014 | 15.211871 N | 77.942781 E |
| 20 | | 536 | 15-March-2014 | 15.215178 N | 77.947515 E |
| 21 | | 537 | 15-March-2014 | 15.216917 N | 77.949166 E |
| 22 | | 538 | 15-March-2014 | 15.218416 N | 77.950564 E |
| 23 | | 539 | 15-March-2014 | 15.221591 N | 77.953603 E |
| 24 | | 540 | 15-March-2014 | 15.225099 N | 77.957372 E |
| 25 | | 541 | 15-March-2014 | 15.226569 N | 77.958248 E |
| 26 | | 542 | 15-March-2014 | 15.228387 N | 77.959399 E |
| 27 | | 543 | 15-March-2014 | 15.229998 N | 77.960501 E |
| 28 | | 545 | 15-March-2014 | 15.223820 N | 77.956471 E |

| | | | | | |
|---|---|---|---|---|---|
| 29 | Feeder 3 | 546 | 15-March-2014 | 15.213598 N | 77.946804 E |
| 30 | | 547 | 15-March-2014 | 15.204944 N | 77.93730 E |
| 31 | Feeder 2 | 551 | 21-February-2014 | 15.188055 N | 77.924987 E |
| 32 | Feeder 1 | 509 | 21-February-2014 | 15.155886 N | 77.920862 E |
| 33 | | 512 | 21-February-2014 | 15.160386 N | 77.923416 E |
| 34 | Feeder 2 | 521 | 21-February-2014 | 15.174326 N | 77.91959 E |
| 35 | | 522 | 21-February-2014 | 15.175897 N | 77.92030 E |
| 36 | | 523 | 21-February-2014 | 15.177475 N | 77.921177 E |
| 37 | | 524 | 21-February-2014 | 15.179081 N | 77.921943 E |
| 38 | | 525 | 21-February-2014 | 15.180875 N | 77.922916 E |
| 39 | | 526 | 21-February-2014 | 15.182457 N | 77.923515 E |
| 40 | | 527 | 21-February-2014 | 15.183845 N | 77.923022 E |
| 41 | Feeder 3 | 544 | 15-March-2014 | 15.231485 N | 77.961368 E |
| 42 | | 548 | 15-March-2014 | 15.202938 N | 77.936743 E |
| 43 | | 549 | 15-March-2014 | 15.201556 N | 77.936035 E |
| 44 | Feeder 2 | 550 | 21-February-2014 | 15.192441 N | 77.927995 E |

For Karnataka site:-

| S.No. | Feeder Nos. | Machine ID | Commissioning Datre | Latitude (N) | Longitude (E) |
|---|---|---|---|---|---|
| 1. | Feeder 01 | MVKPL_01-03 | 29-April-2014 | 17° 09' 49.3" | 75° 43' 2.6" |
| 2. | | MVKPL_01-04 | 2-June-2014 | 17° 09' 37.1" | 75° 43' 1.5" |
| 3. | | MVKPL_01-05 | 2-June-2014 | 17° 09' 31.4" | 75° 43' 1.1" |
| 4. | | MVKPL_01-06 | 29-April-2014 | 17° 9' 29.4" | 75° 43' 18.8" |
| 5. | | MVKPL_01-07 | 29-April-2014 | 17° 9' 24.3" | 75° 43' 21.4" |
| 6. | | MVKPL_01-08 | 29-April-2014 | 17° 9' 16.6" | 75° 43' 26.9" |
| 7. | | MVKPL_01-09 | 29-April-2014 | 17° 09' 11.2" | 75° 43' 28.3" |
| 8. | | MVKPL_01-10 | 29-April-2014 | 17° 9' 3.6" | 75° 44' 26.9" |
| 9. | | MVKPL_01-11 | 29-April-2014 | 17° 8' 59.1" | 75° 44' 31" |
| 10. | | MVKPL_01-12 | 29-April-2014 | 17° 8' 51.9" | 75° 44' 34.5" |
| 11. | | MVKPL_01-13 | 29-April-2014 | 17° 8' 38.9" | 75° 44' 20.9" |
| 12. | | MVKPL_01-14 | 29-April-2014 | 17° 8' 34.3" | 75° 44' 26.1" |
| 13. | | MVKPL_01-15 | 29-April-2014 | 17° 8' 26.2" | 75° 44' 26.7" |
| 14. | Feeder 2 | MVKPL_02-01 | 29-April-2014 | 17° 09' 02.4" | 75° 42' 49.2" |

| | | | | | |
|---|---|---|---|---|---|
| 15. | | MVKPL_02-02 | 29-April-2014 | 17° 08' 57.4" | 75° 42' 44.3" |
| 16. | | MVKPL_02-03 | 29-April-2014 | 17° 08' 51.0" | 75° 42' 39.8" |
| 17. | | MVKPL_02-04 | 29-April-2014 | 17° 08' 52.5" | 75° 42' 31.9" |
| 18. | | MVKPL_02-05 | 29-April-2014 | 17° 08' 45.7" | 75° 42' 41.7" |
| 19. | | MVKPL_02-06 | 29-April-2014 | 17° 08' 36.2" | 75° 42' 37.6" |
| 20. | | MVKPL_02-07 | 29-April-2014 | 17° 08' 31.4" | 75° 42' 31.1" |
| 21. | | MVKPL_02-08 | 29-April-2014 | 17° 08' 22.3" | 75° 42' 23.2" |
| 22. | | MVKPL_02-09 | 29-April-2014 | 17° 08' 20.5" | 75° 42' 46.8" |
| 23. | | MVKPL_02-10 | 29-April-2014 | 17° 08' 40.9" | 75° 42' 53.7" |
| 24. | | MVKPL_02-11 | 29-April-2014 | 17° 08' 35.6" | 75° 42' 59" |
| 25. | | MVKPL_02-12 | 29-April-2014 | 17° 08' 29.4" | 75° 42' 59.9" |
| 26. | | MVKPL_02-13 | 29-April-2014 | 17° 08' 22.0" | 75° 43' 00.1" |
| 27. | | MVKPL_02-14 | 29-April-2014 | 17° 08' 12.4" | 75° 43' 03.0" |
| 28. | | MVKPL_02-15 | 29-April-2014 | 17° 08' 06.8" | 75° 43' 04.7" |
| 29. | | MVKPL_02-16 | 29-April-2014 | 17° 08' 17.9" | 75° 44' 29.8" |
| 30. | | MVKPL_02-17 | 29-April-2014 | 17° 07' 59.4" | 75° 43' 53.5" |
| 31. | | MVKPL_02-18 | 29-April-2014 | 17° 07' 53.6" | 75° 43' 50.9" |
| 32. | | MVKPL_02-19 | 29-April-2014 | 17° 07' 49.5" | 75° 43' 36.0" |
| 33. | | MVKPL_02-20 | 29-April-2014 | 17° 07' 24.0" | 75° 44' 02.4" |
| 34. | Feeder 3 | MVKPL_03-01 | 29-April-2014 | 17° 07' 03.4" | 75° 41' 51.5" |
| 35. | | MVKPL_03-02 | 29-April-2014 | 17° 07' 10.6" | 75° 42' 08.1" |
| 36. | | MVKPL_03-03 | 29-April-2014 | 17° 07' 52.0" | 75° 42' 09.8" |
| 37. | | MVKPL_03-04 | 29-April-2014 | 17° 07' 03.2" | 75° 42' 21.6" |
| 38. | | MVKPL_03-05 | 29-April-2014 | 17° 07' 29.2" | 75° 42' 37.1" |
| 39. | | MVKPL_03-06 | 29-April-2014 | 17° 07' 44.7" | 75° 43' 03.3" |
| 40. | | MVKPL_03-07 | 29-April-2014 | 17° 07' 48.5" | 75° 42' 58.7" |
| 41. | | MVKPL_03-08 | 29-April-2014 | 17° 07' 18.6" | 75° 43' 03.0" |
| 42. | | MVKPL_03-09 | 29-April-2014 | 17° 07' 11.3" | 75° 43' 01.4" |

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| 43. | | MVKPL_03-10 | 29-April-2014 | 17° 07' 04.4" | 75° 42' 57.3" |
| 44. | | MVKPL_03-11 | 29-April-2014 | 17° 06' 58.5" | 75° 42' 58.1" |
| 45. | | MVKPL_03-12 | 29-April-2014 | 17° 07' 34.2" | 75° 43' 37.7" |
| 46. | | MVKPL_03-13 | 29-April-2014 | 17° 07' 18.1" | 75° 43' 24.2" |
| 47. | | MVKPL_03-14 | 29-April-2014 | 17° 07' 12.3" | 75° 43' 25.2" |
| 48. | | MVKPL_03-15 | 29-April-2014 | 17° 07' 06.2" | 75° 43' 36.3" |
| 49. | | MVKPL_03-16 | 29-April-2014 | 17° 06' 51.9" | 75° 42' 0.1" |
| 50. | | MVKPL_03-17 | 29-April-2014 | 17° 6' 46.2" | 75° 43' 59.9" |
| 51. | | MVKPL_03-18 | 2-June-2014 | 17° 06' 37.9" | 75° 43' 55.5" |
| 52. | | MVKPL_03-19 | 29-April-2014 | 17° 06' 31.1" | 75° 43' 49.7" |
| 53. | Feeder 4 | MVKPL_04-01 | 2-June-2014 | 17° 06' 35.1" | 75° 42' 52.8" |
| 54. | | MVKPL_04-02 | 29-April-2014 | 17° 06' 01.9" | 75° 42' 29.4" |
| 55. | | MVKPL_04-03 | 29-April-2014 | 17° 05' 54.7" | 75° 42' 21.6" |
| 56. | | MVKPL_04-04 | 29-April-2014 | 17° 05' 51.3" | 75° 42' 46.6" |
| 57. | | MVKPL_04-05 | 29-April-2014 | 17° 05' 46.4" | 75° 42' 41.3" |
| 58. | | MVKPL_04-06 | 02-June-2014 | 17° 05'39.9" | 75° 42' 41.6" |
| 59. | | MVKPL_04-07 | 29-April-2014 | 17° 06' 35.9" | 75° 43' 23.6" |
| 60. | | MVKPL_04-08 | 29-April-2014 | 17° 06' 28.8" | 75° 43' 24.4" |
| 61. | | MVKPL_04-09 | 2-June-2014 | 17° 06' 23.9" | 75° 43' 47.1" |
| 62. | | MVKPL_04-10 | 29-April-2014 | 17° 06' 15.6" | 75° 43' 39.4" |
| 63. | | MVKPL_04-11 | 29-April-2014 | 17° 05' 59.5" | 75° 43' 31.8" |
| 64. | | MVKPL_04-12 | 29-April-2014 | 17° 05' 27.3" | 75° 43' 30.0" |
| 65. | | MVKPL_04-13 | 29-April-2014 | 17° 06' 04.5" | 75° 43' 55.5" |
| 66. | | MVKPL_04-14 | 29-April-2014 | 17° 05' 59.0" | 75° 43' 54.1" |
| 67. | | MVKPL_04-15 | 29-April-2014 | 17° 05' 51.0" | 75° 43' 53.2" |
| 68. | | MVKPL_04-16 | 02-June-2014 | 17° 05' 38.9" | 75° 43' 45.7" |
| 69. | | MVKPL_04-17 | 02-June-2014 | 17°05' 30.6" | 75° 43' 49.0" |
| 70. | | MVKPL_04-18 | 29-April-2014 | 17° 06' 02.7" | 75° 44' 32.2" |

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| 71. | | MVKPL_04-19 | 29-April-2014 | 17° 05' 53.1" | 75° 44' 20.5" |
| 72. | | MVKPL_04-20 | 29-April-2014 | 17° 05' 48.0" | 75° 44' 11.2" |
| 73. | | MVKPL_04-21 | 29-April-2014 | 17° 05' 42.7" | 75° 44' 20.2" |
| 74. | Feeder 5 | MVKPL_05-01 | 29-April-2014 | 17° 05' 54.8" | 75° 40' 38.6"E |
| 75. | | MVKPL_05-02 | 29-April-2014 | 17° 05' 49.1" | 75° 40' 40.6" |
| 76. | | MVKPL_05-03 | 29-April-2014 | 17° 05' 43.2" | 75° 40' 40" |
| 77. | | MVKPL_05-04 | 29-April-2014 | 17° 05' 37.5" | 75° 40' 39.2" |
| 78. | | MVKPL_05-05 | 29-April-2014 | 17° 05' 31.7" | 75° 40' 38.1" |
| 79. | | MVKPL_05-06 | 29-April-2014 | 17° 5' 26.1" | 75° 40' 34" |
| 80. | | MVKPL_05-07 | 29-April-2014 | 17° 05' 20.1" | 75° 40' 30.9" |
| 81. | | MVKPL_05-08 | 29-April-2014 | 17° 05' 13.9" | 75° 40' 32.7" |
| 82. | | MVKPL_05-09 | 29-April-2014 | 17° 05' 44.4" | 75° 41' 52.6" |
| 83. | | MVKPL_05-10 | 29-April-2014 | 17° 05' 29.6" | 75° 41' 42.6" |
| 84. | | MVKPL_05-11 | 29-April-2014 | 17° 05' 25.2" | 75° 41' 26.4" |
| 85. | | MVKPL_05-12 | 29-April-2014 | 17° 05' 23.1" | 75° 41' 49" |
| 86. | | MVKPL_05-13 | 29-April-2014 | 17° 05' 16.5" | 75° 41' 48" |
| 87. | | MVKPL_05-14 | 02-June-2014 | 17° 05' 12.5" | 75° 41' 59.3" |
| 88. | | MVKPL_05-15 | 02-June-2014 | 17° 05' 3.4" | 75° 41' 57.6" |
| 89. | | MVKPL_05-16 | 02-June-2014 | 17° 05' 52.3" | 75° 41' 36.9" |
| 90. | | MVKPL_05-17 | 02-June-2014 | 17° 05' 45.3" | 75° 41' 33" |
| 91. | | MVKPL_05-18 | 02-June-2014 | 17° 05' 34.7" | 75° 41' 32.7" |
| 92. | Feeder 6 | MVKPL_06-01 | 26-July-2014 | 17° 04' 51.4" | 75° 42' 53.2" |
| 93. | | MVKPL_06-02 | 26-July-2014 | 17° 04' 43.4" | 75° 42' 58.2" |
| 94. | | MVKPL_06-03 | 26-July-2014 | 17° 04' 31.8" | 75° 43' 01.3" |
| 95. | | MVKPL_06-04 | 26-July-2014 | 17° 04' 25.3" | 75° 43' 0.4" |
| 96. | | MVKPL_06-05 | 26-July-2014 | 17° 05' 9.3" | 75° 43' 42.7" |
| 97. | | MVKPL_06-06 | 26-July-2014 | 17° 05' 5.6" | 75° 43' 49.8" |

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| 98. | | MVKPL_06-07 | 26-July-2014 | 17° 04' 53" | 75° 43' 54.7" |
| 99. | | MVKPL_06-08 | 26-July-2014 | 17° 04' 45.3" | 75° 44' 0.8" |
| 100. | | MVKPL_06-09 | 26-July-2014 | 17° 04' 28" | 75° 44' 9.1" |
| 101. | | MVKPL_06-10 | 26-July-2014 | 17° 04' 20.3" | 75°44'12.4" |
| 102. | | MVKPL_06-11 | 23-January-2015 | 17° 04' 12.7" | 75° 44' 13.8" |
| 103. | | MVKPL_06-12 | 26-July-2014 | 17° 03' 48.9" | 75° 44' 23.9" |
| 104. | | MVKPL_06-13 | 26-July-2014 | 17° 03' 55.5" | 75° 44' 22.7" |
| 105. | | MVKPL_06-14 | 26-July-2014 | 17° 04' 57.8" | 75° 42' 49.1" |
| 106. | | MVKPL_06-15 | 26-July-2014 | 17° 04' 9.1" | 75° 44' 22.6" |
| 107. | | MVKPL_06-16 | 23-January-2015 | 17° 04' 5.2" | 75° 43' 45.8" |
| 108. | | MVKPL_06-17 | 26-July-2014 | 17° 04' 1.3" | 75° 45' 0" |
| 109. | | MVKPL_06-18 | 26-July-2014 | 17° 03' 41.6" | 75° 44' 49.5" |
| 110. | | MVKPL_06-19 | 26-July-2014 | 17° 03' 55" | 75° 43' 44.1" |
| 111. | | MVKPL_06-20 | 23-January-2015 | 17° 03' 44.1" | 75° 44' 49" |
| 112. | | MVKPL_06-21 | 23-January-2015 | 17° 03' 50.6" | 75° 44' 48.9" |

The monitoring period this VCS verification covered from 01-June-2021 to 28-February-2022, (inclusive of both dates) and the project activity achieved 241,287 $tCO_2e$ emission reductions during this monitoring period.

Assessment team checked the Commissioning status of the project activity with the commissioning Certificates and found correct. The project is implemented as per the description in the registered PD. No event observed during the current monitoring period which can alter or deviate from the methodology requirement.

# 2 VERIFICATION PROCESS

## 2.1 Method and Criteria

Verification Process: The project assessment is based on the "CDM validation and verification standard for project activities, Version 03.0/16/ and "VCS standard Version 4.2/10/, program guideline version 4.1/10/" and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the VCS project activity are appointed.

Once the project is received by the assessment team, the members of the assessment team carried out: -

1. A desk review of the Monitoring report/16/ against the registered PD/04/ and final validation report/17/;
2. Onsite audit and site visit;
3. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The prepared verification report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the VCS executive board.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ Certification has developed a specific checklist customized for the project. The checklist demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national bus iness environment, Applus+ Certification
as composed a project assessment team in accordance with the appointment rules in the inter nal Quality Management System of Applus+
certification. The composition of audit team shall be approved by the Applus+ Certification ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be c overed by the assessment team.

| Name | Role | SS Coverage | TA Coverage | Financial aspect | Host country experience |
|---|---|---|---|---|---|
| Dr. Atul Takarkhede | LA/TE | YES | YES | NA | YES |
| Mr. Simon Shen | TR | YES | YES | NA | NA |

The detail regarding the assessment team is provided below in this report as Appendix 3

Document review

The Monitoring report version 01/06/ submitted by the PP was reviewed against the approved methodology/20/, registered PD & MR/04/, final validation report and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in this report below in Appendix 1.

Site Visit

A Site visit is conducted by Applus+ Certification. Audit team performed onsite audit with project stakeholders to confirm selected information mentioned in monitoring report and to resolve issues identified in the document review. The detail is provided in this report.

Resolution of Clarification and Corrective Action Request

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 02/06/ submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Internal quality control

As final step of a verification of the final documentation including the verification report and the checklist have to undergo an internal quality control by the technical review committee, i.e., each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of Interest.

After confirmation of the PP the positive verification opinion and relevant documents are submitted to the VCS board through the VCS web-platform.

## 2.2 Document Review

The details of the document observed during the verification process are listed below in Appendix 1 of this report

## 2.3 Interviews

| No. | Interviewee | | | Date | Subject | Team member |
|---|---|---|---|---|---|---|
| | Last name | First name | Affiliation | | | |
| 1. | Kure | Mr. Ramesh | PP representative | 11-April-2022 (TN)<br>12-April-2022 (AP)<br>13-April-2022 (KA) | Project Implementation, JMR & invoicing procedure, calibration, grievance mechanism, Management practices, data storage, QA/QC | Dr. Atul Takarkhede (Team Leader) |
| 2. | Kumar | Mr. Rajesh | Site-in-charge, Burgula site | | | |
| 3. | - | Mr. Kalidas | Site-in-charge, Vagari site | | | |
| 4. | more | Mr. Sharad | Site-in-charge, Savalsung site | | | |
| 5. | Sharma | Mrs. Nitya | Infinite Environmental Solutions LLP | | GHG calculations, MR and ER preparation, Data collection, data storage, QA/QC | |
| 6. | Krishnan | Mr. Murali | Local Stakeholder (TN) | | Local Stakeholder consultation | |
| 7. | Naidu | Mr. Gaurav | Local Stakeholder (TN) | | | |
| 8. | Rai | Ms. Aliya Rama | Local Stakeholder (KA) | | | |

## 2.4 Site Inspections

| **Duration of on-site inspection:** 11-April-2022 (TN), 12-April-2022 (AP), 13-April-2022 (KA) | | | | |
|---|---|---|---|---|
| **No.** | **Activity performed on-site** | **Site location** | **Date** | **Team member** |
| 1. | Assessment team checked the implementation of the project, Baseline emission, Emission reduction calculation, technical description of the project and Monitoring. Assessment team also checked that whether the monitoring plan as described in the VCS PD is actually practised onsite. Also, assessment team checked any change in host country criteria which may affect the baseline of the project activity. | Dharapuram & Ottanchatiram, Tamil Nadu (TN) & Kurnool, Andhra Pradesh (AP) & Bijapur, Karnataka (KA) States of India | 11-April-2022 (TN)<br>12-April-2022 (AP)<br>13-April-2022 (KA) | Dr. Atul Takarkhede<br>(Team Leader) |

## 2.5 Resolution of Findings

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues from verification which need to be clarified for Applus+ Certification's positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 02/06/ submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

| Areas of validation and verification findings | No. of CL | No. of CAR | No. of FAR |
|---|---|---|---|
| Project design document and Monitoring report | 00 | 01 | 00 |
| Description of project activity | 0 | 01 | 00 |
| Application of selected baseline and monitoring methodology and selected standardized baseline | | | |
| Applicability of methodology and standardized baseline | 00 | 00 | 00 |
| Deviation from methodology | 00 | 00 | 00 |
| Clarification on applicability of methodology, tool and/or standardized baseline | 00 | 00 | 00 |
| Project boundary | 00 | 00 | 00 |
| Establishment and description of baseline scenario | 00 | 00 | 00 |
| Demonstration of additionality | 00 | 00 | 00 |

| Areas of validation and verification findings | No. of CL | No. of CAR | No. of FAR |
|---|---|---|---|
| Emission reductions | 00 | 01 | 00 |
| Calibration details | 00 | 02 | 00 |
| Monitoring plan | 00 | 00 | 00 |
| No Net harm assessment | 00 | 00 | 00 |
| Local stakeholder consultation | 00 | 01 | 00 |
| Others (please specify | 00 | 00 | 00 |
| **Total** | **00** | **06** | **00** |

The list of findings and the resolution is presented in Appendix 2 of this report.

### 2.5.1 Forward Action Requests

This is 6th periodic verification of the project activity and no FAR was raised from validation and previous verification.

## 2.6 Eligibility for Validation Activities

This section is not applicable for present verification, as Applus+ Certification holds the accreditation for Validation of projects under this Sectoral Scope.

# 3 VALIDATION FINDINGS

## 3.1 Participation under Other GHG Programs

The project activity has not availed GHG emission reduction from any other GHG program and there will not be any double counting for the same except 45 MW (30 WTGs x 1.5 MW) from Tamil Nadu State (Vagarai site).

The electricity generated from this 45 MW REC component of Tamil Nadu are not included for VCU calculations to avoid any double accounting. The HTSC numbers DRA 01,03,04,05,06,07,08,09,12,13,15,17,18,21,22,23,24,25,26,27,31,32,33,43,44,46,47,48,49,54 (TOTAL 30 WTGs of 1.5 MW from Tamil Nadu site) is availing REC. Thus, electricity generated from these WTGs having REC component are not considered for VCU calculations for current complete monitoring period.

## 3.2 Methodology Deviations

This section is not applicable for present verification as no methodology deviation sought during this verification

## 3.3 Project Description Deviations

Following deviations are approved during previous verification:-

This project Tamil Nādu site WTGs are under group captive since commissioning. To meet group captive consumers annual energy requirement, banking is done during high wind season ((i.e., from June to Oct) and then those units will get utilize in low wind season (i.e., from Nov to Mar). Due to this process electricity in invoice is different than JMR and cannot be consistent and not appropriate to compare or to take lower values as conservative approach. Also, TANGEDCO will deduct Transmission & Distribution loss in generating end while doing the energy allocation. This T&D loss will vary based on consumer drawl voltage (3.06%, 4.24%. Due to above reason, the comparison of JMR and invoices value for Tamil Nadu Site (Vagarai) is not appropriate as there is adjustment of electricity due to banking as explained above. Thus, PP is considering the JMR value for net electricity supplied to grid and for emission reduction calculations. There is no cross check possible due to difference in JMR and invoice values due to banking for Tamil Nadu site, hence only JMR value is considered for ER calculations. State electricity board is doing adjustment in invoice based on JMR value. Hence month wise JMR and invoice is not matching. Since JMRs are issued by state electricity board and authentic, JMR values are considered for ER calculations. There is no material impact on ER calculations as primary source of data are correctly applied for ER calculations.

## 3.4 Grouped Project

This is not a grouped project. Thus, this section is not applicable.

# 4 VERIFICATION FINDINGS

## 4.1 Project Implementation Status

During the Site visit, it was concluded that the project is implemented as per the requirement of the registered VCS PD and approved monitoring plan, during the current monitoring period; it was observed that no unforeseen incident/event evolved which can impact the operation of the project activity which was verified from breakdown records. The project undergone continuous operation and only scheduled maintenance is observed as per the manufactures specification which is acceptable to the assessment team and evident from JMRs.

The project activity is a 233.1 MW wind power project and locations of the same are confirmed by the verification team during the Site visit. The Project activity consists of 156 Wind Turbine Generators (WTGs) with capacity of 0.85 MW each located at Karnataka (112 WTGs) and Andhra Pradesh (44 WTGs) implemented by Mytrah Vayu Krishna Private Limited and 67 Wind Turbine Generator (WTGs) of 1.5 MW implemented by Mytrah Vayu (Manjira) Private Limited Tamil Nadu state in India. These are the subsidiary companies of Mytrah Energy (India) Limited.

Verification team confirmed from the registered PD/4/ and from previous verification reports/17/ that the location of the project activity including the coordinates is same as mentioned in the registered VCS PD/4/.

Assessment team checked the commissioning certificate/1/ and confirmed that the dates of Commission for the Wind plants are correct. Assessment team also conform during site visit with the PPs representatives that there is no change in project design and the project is implemented as per the description provided in the VCS PD & MR. The project boundary includes the electricity generation equipment at the project site, substation and the regional grid (now Indian grid). Connected substations mentioned above are verified during site visit.

Assessment team also checked the technical details of the Wind plants installed onsite from documents submitted by PP and previous verification reports. The assessment team confirmed that there is no proposed or actual change to the project design during this monitoring period. The project design as mentioned in the registered PD is implemented and thus the same is acceptable to the assessment team. All required monitoring equipment's and procedures as mentioned in the registered PD are available and implemented in an appropriate manner.

The organisational role and responsibility as mentioned in the registered PD & MR/4/ is followed onsite confirmed during site visit. All the emergency preparedness as mentioned in the registered PD/4/ is followed onsite and no discrepancies were found regarding the same. Meters are calibrated as per calibration frequency in registered VCS PD/4/. All the emergency preparedness as mentioned in the registered VCS PD is followed onsite and no discrepancies were found regarding the same. Thus, completeness of the monitoring plan confirmed and there are no any material discrepancies between the actual monitoring system and the plan provided in the registered joint PD& MR.

CAR 01 is raised for the inconsistency with respect to MR template guidelines and CAR 02 is raised for supporting evidences for No-Double counting and closed successfully after proper response of PP.

Assessment team confirms following during the verification Site visit:

1. Start date of the project activity is 21-February-2014 as mentioned in the registered VCS PD/4/.
2. An undertaking letter dated 06-April-2022 has been submitted by PP for no double counting with any other GHG program except 30 WTGs of Tamil Nadu state site which registered under REC mechanism. PP also has given a written declaration that project has not claimed other form of GHG credit except REC for the concerned monitoring period. Thus, out of 67 WTGs, only 37 WTGs are considered by PP for emission reduction calculation for current monitoring period and same is reflected in ER sheet too.
3. Assessment team confirms that this is the 6th monitoring under VCS and covers the activity from 01-June-2021 to 28-February-2022 (inclusive of both dates). The project activity adopts renewable crediting period of 10 years period and can be renewed for maximum 2 times. 21-February-2014 is the start date and 20-February-2024 will be end date of the crediting period/6/.

The GHG credits from 01-June-2021 to 28-February-2022 will be claimed under VCS only. At any point of time during the crediting period, the project proponent will abide by the "No Double Counting"/12/.

4. Assessment team checked and found that the Project proponent of the project activity mentioned in Section 1.3 of monitoring report is correct/6/:

5. Assessment team also checked the details of other entity mentioned in Section 1.3 of monitoring report and found correct/6/.

6. The quantified emission reduction calculation for the monitoring period is correct and conservative. Assessment team also compared actual VER with the estimated VER and found that the actual VER is 241,287 $tCO_2e$ which is 33.36% lower than the estimated emission reductions 358,601 $tCO_2e$ [This ER estimation is with exclusion of 45 MW REC component of project activity] (479,448 $tCO_2e$/365 days x 273 days) during this monitoring period which is due to exclusion of 30 WTGs of 45 MW during ER calculation. Hence accepted/6/.

   Further, inline with para 3.16.1, "The project proponent must demonstrate that a project contributes to at least three SDGs by the end of the first monitoring period, and in each subsequent monitoring period." As per the provision of implementation deadline, "Projects registered before 20 January 2023 shall demonstrate contributions to at least three SDGs by 20 January 2025"/12/. However, PP have provided the information on the SDG contributions by the project activity for SDGs:

   1. SDG 7.2.1: Renewable energy share in the total final energy consumption.
   2. SDG 8.6.1: Proportion of youth (aged 15-24) not in education, employment or training
   3. SDG 13.0: tonnes of greenhouse gas emissions avoided or removed.

   VVB have assessed the SDG 7.2.1 and SDG 13.0 and supporting documents /11/ shared by PP and found values correct. However, PP do not have submitted supporting documents for SDG 8.6.1 and thus same has not been verified being not mandatory till 20 January 2025.

## 4.2 Safeguards

### 4.2.1 No Net Harm

No potential environment or socio-economic matter was found during the documents review of VCS PD and grievance register etc. The project is renewable energy project and thus no negative impact observed due to project activity.

The project activity promotes environmental and socio-economic well-being as it results in zero GHG emissions due to installation and operation of clean, renewable energy technology for electricity generation. The report on "Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects" prepared by MNRE dated September 2013[1]. This report clearly mentioned that wind/Wind power project activity operations do not result in direct air

[1] https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf

pollution, noise pollution. Moreover, also as per the Central Pollution Control Board of India notification[2] wind/wind project falls under White Category and are practically non-polluting.

### 4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. For on-going stakeholder's communication, PP have maintained grievance register/15/ at the site office. All the stakeholders are happy with the implementation and operation of the project activity and no negative comments envisaged for the project activity. Complaint/suggestion/feedback register is maintained at site as a part of ongoing communication with stakeholders in line with clause 3.16.17 of VCS Standard, ver. 4.2/10/ and appropriate actions taken time to time by PP.

Assessment team checked the grievance register/15/ provided by PP and found that local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the project. During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate. CAR 03 was raised during the verification process and closed successfully. Please refer Appendix 2 of this report for the detail closure of the CAR.

## 4.3 AFOLU-Specific Safeguards

This section is not applicable as this project activity is a non-AFOLU project activity.

## 4.4 Accuracy of GHG Emission Reduction and Removal Calculations

| | |
|---|---|
| Means of verification | The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the VCS PD. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the monitoring plan of the VCS PD & MR. |
| Findings | CAR 04 was raised during the verification process and closed successfully. Please refer Appendix 2 of this report for the detail closure of the CAR. |
| Conclusion | **Baseline Emissions:**<br>The baseline Emissions for a given year is calculated by multiplying the energy baseline with the grid emission factor. The grid in this case is 'Indian Grid'<br><br>Formula Used: -<br>$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$<br>Where ,<br>$BE_y$ = Baseline Emissions in year y, $tCO_2$<br>$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr) |

[2] http://envfor.nic.in/sites/default/files/Latest_118_Final_Directions.pdf

| | |
|---|---|
| | $EF_{grid,CM,y}$ = Combined margin $CO_2$ 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" (t $CO_2$/MWh)<br>**Ex-ante parameters:**<br><br>The baseline emission factors are taken ex-ante in line with the registered VCS PD as well as cross checked with section validation report and found correct/4/. The baseline emission factors are calculated by the Central Electricity Authority, Govt. of India. The values of OM and and BM are soured from the CEA $CO_2$ Baseline database version 14. The data Combined margin $CO_2$ emission factor ($EF_{grid,CM,y}$) is equal to 0.9817 $tCO_2$/MWh. The calculation approach was in line with the VCS PD.<br>Values are as follows:<br>$EF_{grid,OM,y}$ = 0.9887 $tCO_2$/MWh<br>$EF_{grid,BM,y}$ = 0.9609 $tCO_2$/MWh<br>$EF_{grid,CM,y}$ = 0.9817 $tCO_2$/MWh<br><br>**Ex-post parameter:**<br>$EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y = 245,786 MWh<br><br>The verification team has checked the entire monthly Credit note/ JMR/Form B reports/11/ from respective state electricity board for net electricity generated & supplied to the grid and crosschecked same with the invoices/11/ raised by PP towards State Utilities for the monitoring period.<br>$EG_{PJ,y}$ is measured as per below calculation:<br><br>$EG_{PJ,y} = EG_{BLKNy} + EG_{BLTNy} + EG_{BLAPy}$<br>Where,<br>$EG_{BLKNy} = EG_{Export,KN} - 115\% * EG_{Import} -$ Transmission Loss $(TE,_{KN})$<br>$EG_{BLTNy} = EG_{Export} - EG_{Import}$<br>$EG_{BLAPy} = EG_{Export} - EG_{Import} * 37.4/39.7$<br><br>All values are found correct. All the parameters are monitored and recorded as per the monitoring plan in the MR. However; PPs have apportioned the values for the last month of the monitoring period where dates are not matching with JMR cycle in Burgula site, Andhra Pradesh state. Apportioning found appropriate and conservative. The details of monitoring equipment installed at each SVP are given in appendix 05 below.<br>The calculations/measurement of net electricity supplied to grid is under purview of state electricity board and the PP/Project activity Instance owner has no role on it. PP/Project activity Instance owner gets value of net electricity supplied to grid and hence this parameter is mentioned as a part of monitoring plan |

| | |
|---|---|
| | The net electricity supplied the grid by the project activity during the monitoring period is 245,786 MWh.<br><br>The generation values have been cross checked with the invoices and were found to be consistent.<br><br>All relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation/7/, the accuracy, and applied QA/QC measures.<br><br>Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors.<br><br>**$BE_y$ (baseline emissions),** $tCO_2e$<br><br>$BE_y$ = 245,786245,786 MWh x 0.9817 $tCO_2e$/MWh<br><br>= 241,287 $tCO_2e$ (round down values)<br><br>As per applied methodology ACM0002, version 16.0, the VCS PD, project emission is considered zero as the project activity involved Wind power generation/4/.<br><br>$\boldsymbol{PE_y}$ = As per ACM0002 - Version 16.0, all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected. As the project activity involved wind power project emissions ($PEy$) are taken as zero.<br><br>**Leakage:** As per ACM0002 - Version 16.0, Leakage emissions are not considered for the project activity/20/.<br><br>Hence,<br><br>**$ER_y = BE_y - PE_y$**<br><br>= 241,287 – 0<br><br>= 241,287 $tCO_2e$ (round down values)<br><br>Verification team confirms that the monitoring has been carried out in accordance with the monitoring plan contained in the registered VCS PD/4/. Assessment team confirmed that the GHG emission reductions and removals have been quantified correctly in line with the registered VCS PD/4/. |

## 4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

| | |
|---|---|
| **Means of verification** | The verification team checked the Calibration details of the monitoring meters with the calibration certificates. |
| **Findings** | CAR 05 and CAR 06 were raised during the verification process and closed successfully. Please refer Appendix 2 of this report for the detail closure of the CAR. |

| | |
|---|---|
| **Conclusion** | The verification team checked the break down log for the monitoring period/13/. During the remote verification audit and the feeder wise location of the wind plants is also checked.<br>The metering arrangement is bi-directional energy meters (Main and Check) of accuracy class 0.2s at the State Electricity Board (SEBI) sub-station. These electricity meters are being used by state electricity board for Share certificate statements. These meters record several parameters including electricity exported & imported. These electricity meters are being used by state electricity board for monthly generation reports/11/. The details like make, Serial number, Calibration dates etc./5/. are provided in appendix 05 of this report.<br><br>Verification team confirms that all the energy meters (main and check meter) installed at the substation are of accuracy class of 0.2s and are calibrated as per the calibration frequency mentioned in monitoring plan in VCS PD i.e. The calibration frequency of meters is once in 5 years/5/.<br>No delayed calibrations were observed in the project activity for this monitoring period. All the meters are of same accuracy class i.e., 0.2s as per the requirement of the registered PD. Interview during Site visit with O&M personnel also confirms the same/5/.<br><br>The calculation of net electricity supplied to grid is under purview of state electricity board and PP does not have control on it. Calibration details of the monitoring meters checked with calibration certificates submitted by PP and found that calibration frequency of 5 years is compiled/5/. Thus, no delayed calibration is observed and thus the same is found appropriate.<br><br>The break down log is checked and there is no major breakdown during the monitoring period. No unforced error observed. No sampling procedure applied for monitoring of the data parameter and entire documents were checked by the assessment team to arrive at positive verification conclusions. The monitoring plan is followed at the project site. The monitoring meters were calibrated in line with the registered monitoring plan and there was no delay in calibration observed. Thus, assessment team concluded that the evidences are sufficient in quantity, and appropriate for the quality, to determine the GHG reductions and removals.<br><br>Assessment team checked the calculation of estimated VER vs. Actual VER. As per the registered VCS PD the amount of VERs annually is 479,448 $tCO_2e$. The days involved in present monitoring period are 273. Therefore, on pro-rata basis, the estimated VERs for the monitoring period is 358,601 $tCO_2e$. Actual VERs obtained for the monitoring period is 241,287 tCO2e and thus the actual VER is 33.36% lower than the estimated VER. This variation is majorly due to low PLF (unfavourable sun) which is a natural phenomenon and beyond the control of the Project Proponent. Hence confirms that decrease in VER by 33.36% in this monitoring period is acceptable. |

## 4.6 Non-Permanence Risk Analysis

| No. | Risk that could lead to material errors, omissions or misstatements | Assessment of the risk | | Response to the risk in the verification plan and/or sampling plan |
|---|---|---|---|---|
| | | Risk level | Justification | |
| NA | NA | NA | NA | NA |

# 5 VERIFICATION CONCLUSION

Applus+ Certification has been engaged/02/ by Mytrah Energy (India) Limited to perform the 6th periodical verification of the "Wind Based Power Generation by Mytrah Energy (India) Limited (EKIESL-VCS-January-16-01)".

The project participants are responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's monitoring plan in the registered VCS PD/4/ and the applied methodology ACM0002 version 16.0/20/

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Further, the verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for document verifications. The entire documents checked/Power plant verification conducted to arrive at positive verification conclusions. The verification team can confirm that:

- the project is operated as planned and described in the project document;
- the monitoring plan is as per the applied methodology;
- the monitoring process in Monitoring Report is as per the registered PD/4/;
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned, during verification process.
- Verification period: 01-June-2021 to 28-February-2022 (inclusive of both days).

Verified GHG emission reductions and removals in the above verification period:

| Year | Baseline emissions or removals ($tCO_2e$)[3] | Project emissions or removals ($tCO_2e$) | Leakage emissions ($tCO_2e$) | Net GHG emission reductions or removals ($tCO_2e$) |
|---|---|---|---|---|
| 01-June-2021 to 31-December-2021 | 2,16,754 | 0 | 0 | 2,16,754 |
| 01-January-20221 to 28-February-2022 | 24,533 | 0 | 0 | 24,533 |
| Total | **241,287** | **0** | **0** | **241,287** |

[3]Rounddown values

# APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

| No. | Author | Title | References to the document | Provider |
|---|---|---|---|---|
| 1. | Respective State Utility | Commissioning certificates of the Wind turbine generators installed in Karnataka, Andhra Pradesh and Tamil Nadu States of India. | - | PP |
| 2. | Applus | Contract of the project participant with the DOE. Ref. No. A+SH_SYST_TQC_VCS_VER_5922 | 23-March-2022 | PP |
| 3. | NA | The operational lifetime of the project activity from the manufacturer (Technical specifications) | Manufacturer technical specifications | PP |
| 4. | NA | Registered PD https://registry.verra.org/app/projectDetail/VCS/1521 | 10-February-2016 | PP |
| 5. | Respective state authority | Calibration Certificates of energy meters | - | PP |
| 6. | NA | MR version 01<br>MR version 02<br>MR version 03 | 17-March-2022<br>15-April-2022<br>18-May-2022 | PP |
| 7. | NA | Emission reduction sheet version 01<br>Emission reduction sheet version 02<br>Emission reduction sheet version 03 | 17-March-2022<br>15-April-2022<br>18-May-2022 | PP |
| 8. | PP | O & M Agreements | - | PP |
| 9. | SPVs and state board | Power Purchase Agreements | - | PP |
| 10. | NA | Tools/ guidelines used in the project activity<br>• Glossary of CDM terms version 07<br>• VCS standard Version 4.2<br>• VCS Program Guide 4.1<br>• VCS verification report template version 4.1 | UNFCCC CDM/VCS web site | UNFCCC |
| 11. | State Utility for JMR, PP for invoice | Monthly statement- JMR & invoices for the complete monitoring period | - | PP |
| 12. | PP | Declaration regarding no participation in other GHG program for the concerned monitoring period | 06-April-2022 | PP |
| 13. | PP | Breakdown details for the monitoring period | - | PP |
| 14. | PP | Employment records for plant persons | - | PP |

| No. | Author | Title | References to the document | Provider |
|---|---|---|---|---|
| 15. | PP6 | Grievance Register maintained at site | - | PP |
| 16. | UNFCCC | CDM validation and verification standard for project activities, Version 03.0 | - | UNFCCC |
| 17. | Applus | Validation report. Ref. No. ESSPL/VCS/2016/025 | Version 01 12-February-2016 | |
| 18. | KBS | Previous Verification Report, Report ID: VCS.21.VER.027 (H) | 01-October-2021 | PP |
| 19. | PP | Breakdown details of the power plant | - | PP |
| 20. | UNFCCC | ACM0002 of version 16.0 | version 16.0 | UNFCCC |

# APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

**Table 1. Remaining FAR from validation and/or previous verification**

| FAR ID | XX | Section no. | E.2 | Date : DD/MM/YYYY |
|---|---|---|---|---|
| Description of FAR | | | | |
| There is no FAR from the validation/previous verification of the project activity | | | | |
| Project participant response | | | | Date : DD/MM/YYYY |
| NA | | | | |
| Documentation provided by project participant | | | | |
| NA | | | | |
| DOE assessment | | | | Date: DD/MM/YYYY |
| NA | | | | |

**Table 2. CL from this verification**

| CL ID | | Section no. | | Date: |
|---|---|---|---|---|
| Description of CL | | | | |
| NA | | | | |
| Project participant response | | | | Date: |
| NA | | | | |
| Documentation provided by project participant | | | | |
| *NA* | | | | |
| DOE assessment | | | | Date: |
| NA | | | | |

**Table 3. CAR from this verification:**

Project Implementation Status

| CAR ID | 01 | Section no. | 4.1 | Date: 14-April-2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| During review of monitoring report following inconsistencies observed:<br>1. PP requested to revise and resubmit corrected MR as per comments provided. Kindly submit.<br>2. PP requested to submit copies of technical specifications WTGs, O&M agreement, Major Breakdown sheet of the project activity. Kindly submit.<br>3. PP has mentioned commissioning date of project activity in Appendix 1 of monitoring report. and to verify the same, supporting is provided inline with commissioning date mentioned in certificates. However, few WTGs detail is missing in MR for the Savalsang site of Karnataka district. Thus, Corrective action sought. | | | | |
| **Project participant response** | | | | **Date:** 15-April-2022 |
| 1. Revised MR version 2.0 sheet is submitted.<br>2. The following documents are submitted herewith-<br>Technical specification of WTGs<br>O and M agreement<br>No major breakdown occurred during current monitoring period<br>3. *In the revised MR all the WTG details are added.* | | | | |
| **Documentation provided by project participant** | | | | |
| *1.Revised MR Version 2.0.*<br>*2.Technical specification.*<br>*3. O and M agreement* | | | | |
| **DOE assessment** | | | | **Date:** 19-April-2022 |
| 1. PP has submitted the revised MR as per the updated monitoring report version i.e., VCS (MR template version 4.1) and section of revised MR is updated as per VCS standard version 4.2. Thus, **CAR is Closed**.<br>2. PP has submitted the following document:<br>i) Copy of Technical specification of all WTGs installed in the project activity.<br>ii) Commissioning certificate for wind plant installed in state of Tamil Nadu, Karnataka and Andhra Pradesh.<br>iii) PPA (power purchase agreement) between SPVs and respective state electricity board.<br>iv) O &M agreement<br>Above documents found consistent with the revised MR. thus accepted and **CAR is closed**.<br>3. Pending details of installed WTGs are now incorporated in revised MR by PP. found in line with commissioning certificates and previous verification report. Thus, accepted and **CAR is closed.** | | | | |

| CAR ID | 02 | Section no. | 4.1 | Date: 14-April-2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| PP is requested to submit an undertaking for no any double accounting for current monitoring period and for project activity is participated in other GHG program other than VCS to the assessment team. Kindly submit. | | | | |
| **Project participant response** | | | | **Date:** 15-April-2022 |

| |
|---|
| Submitting herewith signed copy of undertaking for no any double accounting for current monitoring period and for project activity is participated in other GHG program other than VCS. |
| **Documentation provided by project participant** |
| Copy of under taking letter |
| **DOE assessment** **Date:** 19-April-2022 |
| PP has submitted the undertaking letter for no any double counting for current monitoring period dated 06-April-2022 and for project activity PP not claiming any ERs other than VCS verified by assessment team. Thus, **CAR is closed.** |

| **CAR ID** | 03 | **Section no.** | 4.2.2 | **Date:** 14-April-2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| PP is requested to submit records of ongoing local stakeholder consultation including grievance register etc. | | | | |
| **Project participant response** | | | | **Date:** 15-April-2022 |
| *Submitting herewith copy of grievance register for verification* | | | | |
| **Documentation provided by project participant** | | | | |
| *grievance register* | | | | |
| **DOE assessment** | | | | **Date:** 19-April-2022 |
| PP has submitted grievance register as a supporting document for the ongoing local stakeholder consultation. During review of the same, Assessment team observed no major grievance submitted by local stakeholder to the PP and all minor grievance are already resolved. Thus, accepted and **CAR is closed.** | | | | |

### Accuracy of GHG Emission Reduction and Removal Calculations

| **CAR ID** | 04 | **Section no.** | 4.4 | **Date:** 14-April-2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| PP has submitted Emission Reduction sheet to assessment team. For verification of same submitted JMRs and sales invoices relevant to current monitoring period of project activity. However, during assessment team found values of electricity imported from grid is not inline with respective copies of JMRs for the Savalsang and Burgula site for some months. Comments are provided in ER sheet. Thus, corrective action sought. | | | | |
| **Project participant response** | | | | **Date:** 15-April-2022 |
| ER sheet has been revised as per the comments. | | | | |
| **Documentation provided by project participant** | | | | |
| *Revised ER sheet* | | | | |
| **DOE assessment** | | | | **Date:** 19-April-2022 |
| PP has revised the emission reduction sheet to revised ER submitted to assessment team for verification during current monitoring period decencies observed during the desk review for the import value of electricity generation for the Savalsang and Burgula site now consistent the JMR, thus accepted to assessment team and CAR is closed. | | | | |

### Quality of Evidence to Determine GHG Emission Reduction and Removals

| **CAR ID** | 05 | **Section no.** | 4.5 | **Date:** 14-April-2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| PP has provided detailed information of metering equipment like serial number, make, calibration date and validity of calibration and calibration frequency which is provided in MR. to verify same, supporting documents of electricity meters and calibration certificate submitted by PP. However, complete details of meter missing in MR for vagarai site for Tamil Nadu state. Thus, corrective action sought. | | | | |
| **Project participant response** | | | | **Date:** 15-April-2022 |
| The substation details are added in revised MR version 2.0 | | | | |

| Documentation provided by project participant | |
|---|---|
| Revised Version 2.0 | |
| **DOE assessment** | **Date:** 19-April-2022 |
| PP has revised the details in revised MR for this monitoring period now complete detail is included in MR as per the for current monitoring period and certificates are inline with calibration date mentioned in monitoring report and found within maximum permissible error. Thus, accepted and **CAR is closed.** | |

| **CAR ID** | 06 | **Section no.** | 4.5 | **Date:** 14-April-2022 |
|---|---|---|---|---|
| **Description of CAR** | | | | |
| During review of emission reduction sheet, Assessment team observed achieved emission reduction values for throughout the monitoring period and vintage wise is not round downed as per the conservative approach. Thus, corrective action sought. | | | | |
| **Project participant response** | | | | **Date: 15-April-2022** |
| The values are rounded down and same has been replicated in the revised MR version 2.0 | | | | |
| **Documentation provided by project participant** | | | | |
| Revised MR Version 2.0 | | | | |
| **DOE assessment** | | | | **Date:** 19-April-2022 |
| PP has revised monitoring report and round downed the achieved emission reduction value. Same is inline with the revised emission reduction sheet; thus, accepted and **CAR is closed.** | | | | |

**Table 4. FAR from this verification**

| **FAR ID** | XX | **Section No.** | | **Date :** DD-Month-YYYY |
|---|---|---|---|---|
| **Description of FAR** | | | | |
| There is no FAR from this verification | | | | |
| **Project participant response** | | | | **Date :** DD-Month-YYYY |
| NA | | | | |
| **Documentation provided by project participant** | | | | |
| NA | | | | |
| **DOE assessment** | | | | **Date:** DD-Month-YYYY |
| NA | | | | |

# APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Verification team member

| No. | Role | Type of resource | Last name | First name | Affiliation (e.g. name of central or other office of DOE or outsourced entity) | Involvement in | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Desk review | On-site inspection | Interview(s) | Verification findings |
| 1. | Lead Auditor/Technical Expert | OR | TAKARKHEDE | ATUL | TQC-Outsourced entity | Yes | Yes | Yes | Yes |

Technical reviewer and approver of the verification and certification report

| No. | Role | Type of resource | Last name | First name | Affiliation (e.g. name of central or other office of DOE or outsourced entity) |
|---|---|---|---|---|---|
| 1. | Technical reviewer (TR) / Technical Expert (TE) | EI | Shen | Simon | Applus+ Certification |
| 2. | Approver | IR | Calle de Miguel | Agustin | Applus+ Certification |

Short CVs of the Team:

1. **Dr. Atul Takarkhede** is Ph.D. (Environmental Sciences) from Institute of Science, RTM Nagpur University, Nagpur, and he has already published different technical papers related to environmental sciences. He counts with more than 11 years of experience in field of Environmental Auditing, consulting and accreditation. He is an expert in ISO 9001-14001, CO2/GHG Reporting, Carbon Foot Print, Energy, Water and Waste Management reporting for organizations' environmental performance. His professional portfolio is mainly related with carrying out EIA, conducting QA/QC of EIA Reports; conducting environmental/water audits; NABET requirements appliance, functional area expert in Water Pollution & Solid & Hazardous Waste management among others. Furthermore, he counts with solid experience on CDM-VCS-GS consultancy and auditing. Currently he is associated with True Quality Certifications Private Limited and empanelled with Applus+ Certification to carry out GHG audits in the aforementioned schemes.

2. **Mr. Simon Shen** (Master's Degree in Thermal Energy Engineering, Bachelor's Degree in Environmental Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment, auditing and technical review. He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and review with Applus+, apart from the years of

experience working as GHG Auditor and ISO 9001/14001 in TUV SUD for 3.5 years before he joined Applus+. Mr. Simon Shen has extensive experience also as former Applus+ Shanghai CDM Technical Manager.

# APPENDIX 4: ABBREVIATIONS

| Abbreviations | Full texts |
|---|---|
| BM | Build Margin |
| CAR | Corrective Action Request |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reduction(s) |
| CEA | Central Electricity Authority |
| CL | Clarification request |
| CM | Combined Margin |
| CMS | Central Monitoring system |
| $CO_2$ | Carbon dioxide |
| $CO_2e$ | Carbon dioxide equivalent |
| DNA | Designated National Authority |
| DOE | Designated Operational Entity |
| DR | Document Review |
| EF | Emission Factor |
| EIA | Environmental Impact Assessment |
| ER | Emission Reductions |
| FAR | Forward Action Request |
| GHG | Greenhouse gas(es) |
| GWP | Global Warming potential |
| PP | Project Participant |

# APPENDIX 5: CALIBRATION DETAILS

Vagarai Tamil Nadu state55.5 MW (37*1.5 MW WTGs)[4] 33 KV Substation

| S. No. | HTSC No. | Old meter S. No. | Substation | Meter change date | New meter S. No. | Due date of calibration | Calibration Compliance |
|---|---|---|---|---|---|---|---|
| 1. | DRA 002 | 12092331 | 33 Kv | 25-May-2017 | 4321945 | 24-May-2022 | No Delay observed in Scheduled Calibration |
| 2. | DRA 010 | 14190323 | 33 Kv | 23-May-2017 | 4322515 | 22-May-2022 | |
| 3. | DRA 019 | 12091451 | 33 Kv | 22-May-2017 | 4322252 | 21-May-2022 | |
| 4. | DRA 037 | 12091997 | 33 Kv | 20-May-2017 | 4322069 | 19-May-2022 | |
| 5. | DRA 038 | 12092349 | 33 Kv | 20-May-2017 | 4321884 | 19-May-2022 | |
| 6. | DRA 039 | 12092267 | 33 Kv | 05-May-2017 | 4322063 | 04-May-2022 | |
| 7. | DRA 042 | 12092317 | 33 Kv | 20-May-2017 | 4321949 | 19-May-2022 | |
| 8. | DRA 050 | 12092323 | 33 Kv | 20-May-2017 | 4322064 | 19-May-2022 | |
| 9. | DRA 052 | 14190336 | 33 Kv | 20-May-2017 | 4321888 | 19-May-2022 | |
| 10. | DRA 055 | 14190278 | 33 Kv | 22-May-2017 | 4322067 | 21-May-2022 | |
| 11. | DRA 011 | 14190249 | 33 Kv | 23-May-2017 | 4322519 | 22-May-2022 | |
| 12. | DRA 014 | 14190299 | 33 Kv | 23-May-2017 | 4322517 | 22-May-2022 | |
| 13. | DRA 016 | 14190312 | 33 Kv | 23-May-2017 | 4322521 | 22-May-2022 | |
| 14. | DRA 020 | 14190301 | 33 Kv | 23-May-2017 | 4322433 | 22-May-2022 | |
| 15. | DRA 028 | 14190333 | 33 Kv | 22-May-2017 | 4322566 | 21-May-2022 | |
| 16. | DRA 029 | 14190313 | 33 Kv | 22-May-2017 | 4322574 | 21-May-2022 | |
| 17. | DRA 030 | 14190294 | 33 Kv | 22-May-2017 | 4322374 | 21-May-2022 | |
| 18. | DRA 034 | 14190337 | 33 Kv | 23-May-2017 | 4321977 | 22-May-2022 | |
| 19. | DRA 035 | 14190331 | 33 Kv | 22- May- 2017 | 4322581 | 21-May-2022 | |
| 20. | DRA 036 | 14190316 | 33 Kv | 22- May- 2017 | 4322582 | 21- May -2022 | |
| 21. | DRA 040 | 14190292 | 33 Kv | 25- May- 2017 | 4322160 | 24- May -2022 | |
| 22. | DRA 041 | 14190257 | 33 Kv | 25- May -2017 | 4321952 | 24- May -2022 | |
| 23. | DRA 045 | 14190319 | 33 Kv | 20- May -2017 | 4321943 | 19- May -2022 | |
| 24. | DRA 051 | 14190325 | 33 Kv | 20- May -2017 | 4322065 | 19- May -2022 | |
| 25. | DRA 053 | 14190267 | 33 Kv | 20- May -2017 | 4321944 | 19- May -2022 | |
| 26. | DRA 065 | 14190268 | 33 Kv | 22- May -2017 | 4322579 | 21- May -2022 | |
| 27. | DRA 061 | 13197046 | 33 Kv | 20- May -2017 | 4322154 | 19- May -2022 | |

[4] PP is claiming VCS benefits for only 37 WTGs out of 67 WTGs. Rest 30 WTGs are availing Renewable Energy Certificate (REC) benefits. Meter calibration of the 37 WTGs claiming VCS benefits was done at the date of commissioning. Later on these meters were changed in the year 2017 (respective dates are mentioned in the table above). The calibration records of newly installed meters have been submitted to the DOE and the due date of calibration for the respective meters are mentioned in the above table. Hence, accepted.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 28. | DRA 056 | 14190263 | 33 Kv | 25- May -2017 | 4321973 | 24- May -2022 | |
| 29. | DRA 060 | 14190320 | 33 Kv | 20- May -2017 | 4321948 | 19- May -2022 | |
| 30. | DRA 058 | 14190273 | 33 Kv | 23- May -2017 | 4322514 | 22- May -2022 | |
| 31. | DRA 057 | 14190341 | 33 Kv | 23- May -2017 | 4322513 | 22- May -2022 | |
| 32. | DRA 059 | 14190315 | 33 Kv | 20- May -2017 | 4322068 | 19- May -2022 | |
| 33. | DRA 064 | 14190279 | 33 Kv | 20- May -2017 | 4322066 | 19- May -2022 | |
| 34. | DRA 067 | 14190276 | 33 Kv | 22- May -2017 | 4322573 | 21- May -2022 | |

Calibration details for Karnataka site WTGs 95.2 MW (112*0.85 MW WTGs) 33 KV Substation

| Location | Meter Type | Meter Serial Number | Make | Substation | Accuracy Class | Calibration Date | Due date of Calibration | Calibration Compliance |
|---|---|---|---|---|---|---|---|---|
| Feeder 1 | Main Meter | 13191120 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | No Delay observed in Scheduled Calibration |
| | Check Meter | 13191121 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| Feeder 2 | Main Meter | 13191094 | L & T | 33Kv | 0.2s | 20-May-2017 | 19-May-2022 | |
| | Check Meter | 13191095 | L & T | 33Kv | 0.2s | 20-May-2017 | 19-May-2022 | |
| Feeder 3 | Main Meter | 13191100 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| | Check Meter | 13191104 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| Feeder 4 | Main Meter | 13191096 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| | Check meter | 13191097 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| Feeder 5 | Main Meter | 13191114 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| | Check Meter | 13191122 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| Feeder 6 | Main Meter | 13191159 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |
| | Check Meter | 13191380 | L & T | 33Kv | 0.2s | 23-Sep-2020 | 22-Sep-2025 | |

Calibration details for Andhra Pradesh site WTGs 37.4 MW (44*0.85 MW WTGs) 33K Kv wind metering

| Meter Type | Meter meter Serial No. | Calibration Date | Substation | Due Date | New calibration date | Due date | Calibration Compliance |
|---|---|---|---|---|---|---|---|
| Main Meter | APX01701 | 28-July-2017 | 33 Kv | 27-July-2022 | 14-Feb-2022 | 13-Feb-2027 | No Delay observed in Scheduled Calibration |
| Check Meter | APX01702 | 28-July-2017 | 33 Kv | 27-July-2022 | 14-Feb-2022 | 13-Feb-2027 | |
| Standby Meter | APX01703 | 28-July-2017 | 33 Kv | 27-July-2022 | 14-Feb-2022 | 13-Feb-2027 | |