



POSITIVE CLIMATE CARE 8.25 MW WIND POWER PROJECT ACTIVITY IN CHITRADURGA, KARNATAKA, INDIA

Total Volume Available : 18,005 VCUs

Monitoring Period:

April 01, 2008 to September 01, 2009

Positive Climate Care Private Limited

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VER PORTFOLIO DESCRIPTION

Positive Climate Care 8.25 MW Bundled Wind Power Project Activity in Hassan, Karnataka, India

Project Type	Type 1: Renewable Energy Projects
Project Locations	Six wind turbines consisting three machines of 1.5 MW and another three of 1.25 MW individual capacities are operating in four different villages of district Hassan in the state of Karnataka, India.
Description of Project	The project activity deals with generation of electricity using the renewable wind energy in order to feed the power deficient grid of Karnataka Power Transmission Corporation Limited (KPTCL) or Chamundeshwari Electricity Supply Corporation (CESC Mysore), a Government of Karnataka undertaking, through a long term Power Purchase Agreement. The produced wind power being greenhouse gas (GHG) neutral not only displaces thermal power but also reduces the associated emissions with thermal power generation.
Methodology	AMS I D - Grid Connected Renewable Electricity Generation Methodological Tool: "Tool to calculate the emission factor for an electricity system"; EB 35, Annex 12, version 01.1; Valid from: July 29 th , 2008
Volume / Vintage	6646/ Year 2008 11359/ Year 2009 Total Available Volume: 18005 / (April 1 st , 2008 to September 1 st , 2009)
Transaction Type / Availability for Delivery	The above total volume (18005) is available for sale.
Unit Price	Quotes are welcome.
Costs & Taxes	Seller has borne all costs associated with the production, validation and verification of the project activities.
Verification Standard	Voluntary Carbon Standard (VCS) 2007.1 In addition, the project proponent pursued a CDM registration through UNFCCC and the project activity received the required Host Country Approval. Therefore, it's a pre-CDM project. The project proponent has subsequently declared that GHG reduction credits would be claim up to the date of registration of project activity in CDM to avert the double counting of credits.
Monitoring Standard / Methodology	Title: "Grid connected renewable electricity generation" AMS I D Reference: Appendix B to the simplified Modalities & Procedure for small-scale CDM project activities; Version 14; Valid from 31 st December 2009. For the purpose of reporting and documenting generated emission reduction and to serve as the basis for verification, certification and issuance of those credits, first monitoring report for monitoring period from April 1 st , 2008 through September 1 st , 2009 was submitted to VCSA. Salient features from this report are included here: <ul style="list-style-type: none"> ▪ The supplier company of the installed wind turbines was appointed as the

	<p>O & M contractor at the project activity. This is an ISO 9001:2000 certified company and exerts their higher standards to operate and maintain the project activity through a full-fledged trained service team stationed at the site. The service set up consists of site in-charge, service engineers, machine operators and security personnel.</p> <ul style="list-style-type: none"> ▪ The wind turbines at the sites are connected to a Central Monitoring Station (CMS) located at site for 24/7 on-line, real-time surveillance of the machines. ▪ In accordance with the AMS I D, version 14 guidelines, the monitoring consists metering the generated electricity. Electricity supplied to the grid by the project is measured through national standard electricity metering instruments recorded monthly by the project entity. ▪ All the Main and Check Energy meters (export & import) and all associated instruments, transformers installed at the project are of 0.2% accuracy class. Each meter is jointly inspected and sealed by KPTCL/CESC in presence of representatives of project proponent . ▪ The KPTCL/ CESC takes the readings (joint meter readings) from these meters and the same reading are used to determine the net power fed to the grid and determine the extent of mitigation of GHG over a period of time. ▪ All the meters are tested for accuracy every calendar year with reference to a portable standard meter of 0.1% accuracy. As the instruments are calibrated and marked at regular intervals, the accuracy of measurement can be assured at all times. Necessary records of calibration is maintained by both KPTCL/CESC and project proponent .
Status of Verification	Verified on December 01, 2010
Additionality	<p>The project activity is a voluntary initiative by project proponent , and it is not mandatory by law. In line with VCS 2007.1 requirements and with reference to Attachment A of Appendix B for simplified modalities and procedures for small scale CDM project activities, the project proponent demonstrated that the project activity was additional and not a baseline scenario.</p> <p>Internal rate of returns (IRR) for the whole bundled project of 8.25 MW capacity was determined in the process of investment analysis. The IRR in each case was found quite below the benchmark IRR conservatively set for the project. The low IRR mainly attributes to low Plant Load Factor, a key variable encompassing variation in wind profile, variation in off-take (including grid availability) and machine downtime. The low IRR indicated that the project was financially not attractive. Nevertheless, the incentive through sale of the emission reductions should improve the returns from the project activity. It can be justified that the carbon revenue, which should be earned from the sale of the generated VERs, is very crucial to sustain the operations of the project activity.</p>
Registry	APX VCS Registry- Project ID 376
Co-Benefits	<p>The main purpose of the project activity is to generate electrical energy through sustainable means using wind power resources and to contribute to climate change mitigation efforts. In the absence of the project activity, the electricity thus supplied would have been generated through fossil fuel dominated thermal power plants. The project activity thus contributes to reduction in specific emissions (emissions of pollutant) including GHG emissions. The project activity is also responsible for sustainable economic growth and conservation of environment through use of wind</p>

as a renewable source. Several co-benefits are associated with the development and operation of this project activity, such as:

- Enhancement of local employment in the vicinity of the project, which is a rural area;
- Capacity building and empowerment of vulnerable sections of the rural communities dwelling in the project area;
- Sustainable development through generation of eco-friendly power;
- Increasing share of renewable energy power generation in the regional and national grid;
- Providing national energy security, especially when global fossil fuel reserves threaten the long term sustainability of the Indian economy;
- Strengthening India's rural electrification coverage;
- Essentially reducing the GHG emissions compared to a business-as-usual scenario;
- Reduction of other pollutants such as SO_x, NO_x, and PM resulting from power generation industry;
- Contribution towards reducing power shortage especially in the state of Karnataka, India;
- Demonstration and help in stimulating the growth of the wind power industry in India;
- Power generation from renewable energy sources paves way for energy security of future generations;
- Conservation of natural resources including land, forests, minerals, water and ecosystems.

Wind Mills Photographs Taken at the Project Site in Hassan, Karnataka, India







Photographs Taken During Stakeholder Consultation Survey

1.2. Response from local farmers, cowboys, Shepard and security guards

