

01.	Name of Project
	The Converging World Renewable Energy India Wind Farm
02.	Location of Project (Village/ District/ State)
	Udayathur Village at Chidamparapuram Panchayat in Radhapruam Taluk / Tirunelveli district / Tamil Nadu
03.	Name of Project Sponsor(s) & Contact details
	<p>CW Renewable Energy (India) Private Limited A subsidiary of: The Converging World No 70 Prince Street Bristol BS1 4HU UK www.theconvergingworld.org</p> <p>Contact Mr Simon Manley, simonmanley@theconvergingworld.org. +44 117 917 7200</p>
04.	Name of Project (Developer/ Consultant) & Contact details
	<p>Consultant: Carbon Resource Management Ltd 49 St. James's Street London SW1A 1JT UK www.carbonresource.com</p> <p>Contact Mr Christiaan Vrolijk, cv@carbonresource.com. +44 20 7016 1426</p>
05.	Ownership details of Project Sponsor(s) Company
	The Converging World is a UK-registered charity
06.	CER sharing arrangements amongst Project Sponsors
	100% The Converging World
07.	Project description
	<p>The Converging World is a UK-registered charity with the aim of reducing the impact of climate change as well as reducing inequality and social injustice in the world. As part of its strategy The Converging World (TCW) has decided to construct a wind farm in Tamil Nadu, India, providing non-polluting electricity in a developing country to aid their sustainable development, while helping to reduce global greenhouse gas emissions.</p> <p>The Converging World Renewable Energy India Wind Farm will consist of 17 wind turbines, each of which will have a capacity of 1.5 MW, to be installed over a period of 3 years. When completed the 25.5 MW wind farm is expected to generate approximately 66 GWh/y net of own use and losses, which will be supplied to the Tamil Nadu Electricity Grid on the basis of a Power Purchase Agreement (PPA).</p> <p>The proposed project activity will generate greenhouse gas (GHG) emission reductions by avoiding CO2 emissions from fossil fuel-fired power plant supplying the Southern Grid in India. The expected annual reductions, once fully operational, will be 61,469 tCO2e.</p> <p>The proposed project activity's two main aims are sustainable development and emission reductions. The project will:</p> <ul style="list-style-type: none"> • Generate non-polluting electricity

	<ul style="list-style-type: none"> • Aid sustainable development in Southern India • Reduce greenhouse gas emissions compared to fossil fuel-fired power plants that supply the Southern India Grid • Reduce other pollutants resulting from the fossil fuel-fired power plants business-as-usual scenario. • Help the further growth of the wind power industry in Southern India • Create local employment opportunity during assembly, installation and operation of the project • Help stakeholder awareness in the region <p>The proposed project activity will be built and operated by Suzlon, an experienced wind farm project operator, who also provides the technology.</p> <p>In addition, after payments to the operator, the revenues from the project will be used to further the sustainable development impact of the project. About 25% of the revenue from green electricity sales will be donated to TCW's local partner, the NGO SCAD ("Social Change and Development"), to invest in community development. The remainder of the revenue will go towards financing new wind turbines. The projected emission reductions will be retired by the project sponsors up to the value of the original investment, with the revenues from any remaining reductions re-invested in further low-energy and sustainable development projects.</p>																				
08.	Technology to be employed (Whether state of art/Technological innovation, if any)																				
	<p>The project activity involves the installation of 17 wind turbines, each with a capacity of 1.5 MW, manufactured in India by Suzlon. While Suzlon is an Indian company, its R&D facilities are based in Europe, and it has acquired other technology from the "North".¹ The technical design of the wind turbines is highly advanced and reflects current best practice. Some key technology parameters are listed in Table 2.</p> <p>Table 2. Key technology parameters of the turbine</p> <table border="1" data-bbox="309 1285 1353 1637"> <thead> <tr> <th>Key Technology Parameter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Manufacture</td> <td>Suzlon</td> </tr> <tr> <td>Model</td> <td>S.82</td> </tr> <tr> <td>Rotor diameter (m)</td> <td>82</td> </tr> <tr> <td>Swept area (m²)</td> <td>5281</td> </tr> <tr> <td>Cut-in wind speed (m/s)</td> <td>4</td> </tr> <tr> <td>Rated wind speed (m/s)</td> <td>14</td> </tr> <tr> <td>Cut-out wind speed (m/s)</td> <td>20</td> </tr> <tr> <td>Hub height of the wind turbines (m)</td> <td>78.5 (variable depending on site)</td> </tr> <tr> <td>Capacity (kW)</td> <td>1500</td> </tr> </tbody> </table>	Key Technology Parameter	Value	Manufacture	Suzlon	Model	S.82	Rotor diameter (m)	82	Swept area (m ²)	5281	Cut-in wind speed (m/s)	4	Rated wind speed (m/s)	14	Cut-out wind speed (m/s)	20	Hub height of the wind turbines (m)	78.5 (variable depending on site)	Capacity (kW)	1500
Key Technology Parameter	Value																				
Manufacture	Suzlon																				
Model	S.82																				
Rotor diameter (m)	82																				
Swept area (m ²)	5281																				
Cut-in wind speed (m/s)	4																				
Rated wind speed (m/s)	14																				
Cut-out wind speed (m/s)	20																				
Hub height of the wind turbines (m)	78.5 (variable depending on site)																				
Capacity (kW)	1500																				
09.	Transfer of Technology (methodology)																				
	Suzlon's R&D facilities are based in Europe, and it has acquired other technology from the "North". The technical design of the wind turbines is highly advanced and reflects current best practice.																				
10.	Project start date																				
	March 2008																				
11.	Project completion date																				
	First turbine expected to be commissioned June 2008, final turbine September 2010.																				

¹ http://www.suzlon.com/history.html?cp=1_5.

12.	Project Life time
	At least 20 years from commissioning
13.	Status of Project Clearances
	Approved
14.	Status of Resource inputs
	Wind turbines ordered
15.	Financing details of the Project
	First stage financed 50% equity from TCW 50% debt provided by Suzlon
16.	Total CDM contribution sought
	50% equity * 17 turbines * 1.1563 million GBP per turbine = 9,828,550 GBP
17.	CDM contribution expected upfront
	All equity is CDM contribution upfront.
18.	Indicative CER price
	GBP 10 / CER
19.	Name & Address of buyer of CER's
	The Converging World
20.	Cost of CER to the Company
	GBP 10 / CER
21.	IRR and DSCR without CER Revenue
	IRR 8.03%
22.	IRR and DSCR with CER Revenue
	IRR 13.63%
23.	Whether any ODA is flowing to the Project
	No
24.	Subsidy element if any in the project & source
	None
25.	Total cost of the Project
a)	In Indian Rs.
b)	Break up of Foreign currency (if any)
	17 turbines * 1.1563 million GBP = 19,657,100 GBP
26.	Transaction Cost
	0
27.	Whether Project appraised by any Financial Institution
	Not applicable
28.	Financial Closure
	First stage financed
29.	Expected date of first CER delivery & CER (Revenue) flow yearwise
	First delivery August-September 2009 All CER revenues are paid upfront as equity 2008: approximately 3 million GBP 2009: approximately 4 million GBP 2010: approximately 3 million GBP
30.	Crediting period
	7 years
31.	Estimate of GHG abatement in tCO ₂ eq. (Year wise)

	Period*	Estimated emisison reductions	
	2008	21,402	
	2009	43,097	
	2010	59,800	
	2011	61,469	
	2012	61,469	
	2013	61,469	
	2014	61,469	
	Total	370,177	
	Crediting period	7 years	
	Average reductions	52,882	
32.	Baseline Methodology (Approved or New)		
	ACM0002		
33.	Whether EIA conducted for the project		
	<p>Wind power is one of the cleanest sources of renewable energy, with no associated emissions and waste products. In India, wind power projects do not require an Environmental Impact Assessment. As per the Schedule 1 of Ministry of Environment and Forests (MoEF – Government of India) notification dated 14 September 2006. For details see http://envfor.nic.in/legis/eia/so1533.pdf.</p> <p>The proposed project does not fall under the list of activities requiring EIA as it will not involve any negative environmental impacts. Also in regard to the Gold Standard requirements, no issues are identified which scored -1 in the Sustainable Development Matrix, therefore not necessitating an EIA. Additionally, the wind turbines of the proposed project activity are added to an already-existing wind farm site, thus avoiding any impacts on “unspoiled” areas. Therefore no EIA study was conducted.</p> <p>However, some impacts are discussed in the PDD.</p>		
34.	Sustainable Development Criteria		
	Component		Score (-2 to 2)
	• Indicators		
	Local/regional/global environment		
	• Water quality and quantity		0
	• Air quality (emissions other than GHGs)		+1
	• Other pollutants (including, where relevant, toxicity, radioactivity, POPs, stratospheric ozone layer depleting gases)		0
	• Soil condition (quality and quantity)		0
	• Biodiversity (species and habitat conservation)		0
	<i>Sub total</i>		<i>+1</i>
	Social sustainability and development		
	• Employment (including job quality, fulfilment of labour standards)		+1
	• Livelihood of the poor (including poverty alleviation, distributional equity, and access to essential services)		+1
	• Human and institutional capacity (including empowerment, education, involvement, gender)		+2
	<i>Sub total</i>		<i>+4</i>
	Economic and technological development		
	• Employment (numbers)		+1
	• Balance of payments (sustainability)		+1

	<ul style="list-style-type: none"> Technological self reliance (including project replicability, hard currency liability, skills development, institutional capacity, technology transfer) 	+1
	<i>Sub total</i>	+3
	TOTAL	+8
	A detailed discussion is given in the PDD.	
35.	Specific global & local environmental benefits	
	<ul style="list-style-type: none"> Generate non-polluting electricity Aid sustainable development in Southern India Reduce greenhouse gas emissions compared to fossil fuel-fired power plants that supply the Southern India Grid Reduce other pollutants resulting from the fossil fuel-fired power plants business-as-usual scenario. Help the further growth of the wind power industry in Southern India 	
36.	Socio -economic aspects	
	<ul style="list-style-type: none"> Create local employment opportunity during assembly, installation and operation of the project Help stakeholder awareness in the region 	
37.	Local stake holders comments	
	<p>All of the returned questionnaires (49) agreed with the construction of the project. 48 stakeholders thinking the overall impact of the project would be positive, and 1 negative. 47 stakeholders assumed there would be economic benefits, mostly jobs, for the local area. However, 27 people responded that the project would have some negative impact on the environment, mentioning mostly noise (22), impact of wildlife (14), and sight spoiling (7).</p> <p>At the meeting it was mentioned that this was the first opportunity that stakeholders have had to seriously comment on the development of wind farms despite several projects in the area. The stakeholders indicated that they were very happy with this opportunity. Many of the more detailed comments therefore relate as much if not more to these other existing projects rather than the proposed TCW wind farm.</p> <p>Further comments related to land use, availability of labour, noise, damage to roads, waste from construction and the damage to irrigation canals resulting from the construction and construction traffic.</p> <p>A detailed discussion of the stakeholder process, questions and responses are given in the PDD and an additional annex covering the stakeholder meeting.</p>	
38.	Environment Management Programme	
	This is the responsibility of Suzlon, who will build and operate the wind farm.	
39.	Project risks (Economic, Legal, Political, Social & Environmental)	
	No significant project risks	
40.	Project promoter credentials (No. of Projects promoted in the past & their status)	
	Suzlon has developed many wind farms in India	
41.	Developer / Consultant credentials	
	Carbon Resource Management Ltd is one of the main CDM companies having been involved in 17 registered CDM projects and more than 20 under validation or requesting registration.	
42.	Comments of MoEF/ Line Ministry (If any)	