

GROUPED WIND POWER PROJECT IN INDIA

Document Prepared By: MITCON Consultancy & Engineering Services Ltd.
Kubera Chambers, Shivajinagar, Pune - 411 005

Project Title	"Grouped Wind Power Project in India"
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Project ID	429 (As per VCS registry) ¹
Monitoring Period	4 th Monitoring Period 01-07-2010 to 31-10-2011 (first and last days included)
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¹<https://vcsprojectdatabase2.apx.com/myModule/Interactive.asp?Tab=Projects&a=2&i=429&lat=17%2E016667&lon=74%2E583333&bp=1>

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1 PROJECT DETAILS

1.1 Summary Description of Project

Purpose of the project activity:

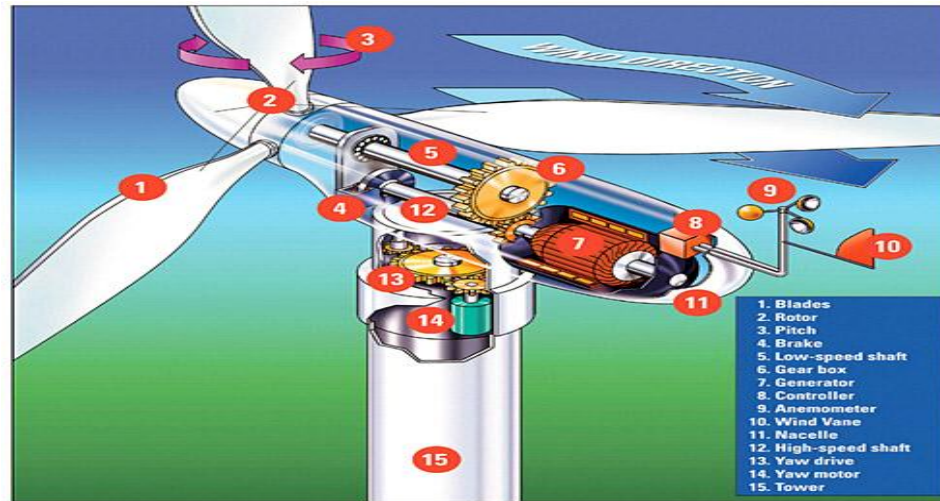
The present bundled project activity deals with generation of electricity using wind energy by Wind Turbine Generator (WTG). The project utilizes wind energy for generating electricity which otherwise would have been generated through operation of or new addition of alternate fuels (fossil fuel) based power plants in regional grid, which would lead to GHG emissions. The project contributes to reduction in specific emissions (pollutants generated from energy generation) including GHG emissions. Apart from generation of renewable electricity, the project has also conceived for the following:

- To enhance the propagation of commercialisation of wind turbines in the region
- To contribute to the sustainable development of the region, socially, environmentally and economically
- To reduce the prevalent regulatory risk for this project through revenues from emission trade

Brief description of the installed technology and equipments:

The wind turbine converts wind's kinetic energy into electricity. This project activity is based on an environmentally safe technology provided by the various wind technology suppliers i.e. NEPC, Pioneer Wincon, Suzlon Ltd., NEG Micon, Gamesa Eolica. The aggregate capacity of project is 74.9 MW consisting 68.875 MW grid-connected and 6.025 MW captive renewable electricity generations. The project activity involves 72 project promoters which comprises installation of total 111 No's WTGs ranging from 0.225 to 1.5 MW.

In wind energy generation, kinetic energy of wind is converted into mechanical energy and subsequently into electrical energy. Wind has considerable amount of kinetic energy when blowing at high speeds. The wind (Kinetic Energy) when it passes through the blades of the wind turbines, it is converted into mechanical energy and rotates the wind blades. When the wind blades rotate, the connected generator also rotates, thereby produce electricity.



Schematic Diagram of WTG

The project activity consists of total 111 numbers of WTGs, Provide by various technology suppliers as below:

Sr. No	Technology Supplier	WTG (MW)	Capacity	No. of WTGs	Total installed Capacity (MW)
1	NEPC	0.225		26	5.85
2	Pioneer Wincon	0.25		2	0.5
3	Suzlon	0.35		8	2.8
4	NEPC	0.5		1	0.5
5	Suzlon	0.6		39	23.4
6	NEG MICON	0.75		4	3
7	GamesaEolica	0.85		1	0.85
8	Suzlon	1.25		28	35
9	Suzlon	1.5		2	3
		Total		111	74.9

All the above WTGs in the project have been developed indigenously and no transfer of technology is involved.

Total emission reductions achieved in this monitoring period.

The total emission reductions achieved in this monitoring period i.e. from 01/07/2010 to 31/10/2011 is 160,055 tCO₂ e.

1.2 Sectoral Scope and Project Type

Project Type: I – Renewable Energy Projects

Sectoral Scope: 1Energy industries (renewable - / non-renewable sources)

Project is not grouped project activity as per VCS guidelines.

1.3 Project Proponent

Sr. No.	Name of Project Promoter	Office Address	Contact Information
1	Pragati Agencies	Vishnu Chambers, Shahu Corner, Ichalkarnji - 416 115, District Kolhapur, Maharashtra, India.	Mr. A.K. Goenka Position: Manager Contact No. 0230 -2432552 Email- vishnutx@bsnl.in vishnutx@sancarnet.in
2	Umang Textiles		
3	Ankur Textiles		
4	Vandana Textiles		

Sr. No.	Name of Project Promoter	Office Address	Contact Information
5	Sun Irrigation System (P) Ltd.	Post Box No. 162, 10/276 Kapad Market , Ichalkarnji- 416 115, Dist. Kolhapur, Maharashtra, India	Mr. S.K. Parik Position: Director Contact No. 91-93260 10101 Email- pvc_sunflow@rediffmail.com kpr_sunfab@rediffmail.com
6	Jathar Textiles Pvt Ltd.	6 th Lane, Gat No. 747/1, Plot No. 32 to 35, Post. Ganganagar, Ichalkarnji - 416 116, Maharashtra, India	Mr. ManoharBalkrishnaJathar Position: Director Contact No. 91-9822065037 Email- jathargroup@sancharnet.in
7	B. C. Chadrashekhar	1194, Kalikadevi Road, Davangere – 577 001, Karnataka, India	Mr. B. C. Chandra Shekhar Position:Proprietor Contact No.08192-231348, 222170 Email- bscdvg@rediffmail.com
8	B.C. Shivakumar	1194, Kalikadevi Road, Davangere – 577 001, Karnataka, India	Mr. B. C. Shivakumar Position: ProprietorContact No.08192-231348, 222170 Email- bscdvg@rediffmail.com
9	Aerolex Cablenet	"Aerolex Center", No. 109, 3rd Floor, K. H. Road, Bangalore- 560 027, India	Mr. S. T. Wadhwa Position: Partner Contact No.91-9945511025 Email- aerolex@vsnl.com
10	B. S. Channabasappa& Sons	Cloth Merchants, 1194, Kalikadevi Road, Davangere – 577 001, Karnataka	Mr. B. C. Umapathy Position: Partner Contact No.08192-231348, 222170 Email- bscdvg@rediffmail.com
11	Air Control (India) Pvt. Ltd.,	Adam's Court, Baner Road, Pune- 411 045, Maharashtra, India	Mr. Nachiket Patil Position: Director Contact No.91-9764499933 Email-

Sr. No.	Name of Project Promoter	Office Address	Contact Information
			aircontrolindia@gmail.com
12	Bengal Cardboard Industries & Printers Pvt. Ltd.	Oricon House, 4 th floor, 12 Rampart Road, Fort, Mumbai- 400 023, India	Mr. RajkumarSaraf Position: Director Contact No.91-9869421174 Email- sarafdevelopers@gmail.com
13	Chaphekar Engineering Pvt. Ltd.	Plot-2, S. No- 239 & 240, Hinjawadi - 411 057, Taluka Mulshi District, pune, Maharashtra, India	Mr. Sachin Chaphekar Position: Director Contact No.91-20-66524877 / 78 Email- sachin@chaphekarengg.com enquiry@chaphekarengg.com
14	Economic Explosives Limited.	11, Zade Layout, Bharat Nagar, Nagpur- 440 033, Maharashtra, India	Mr. NileshPanpaliya Position: VP (finance) Contact No. 91-712-2561000 Email- nilesh@solarexplosives.com
15	Jsons Fountry Private Limited	Gat No. 170, Near Kupwad M. I. D. C. Village-Savali, Taluka-Miraj, Sangli, Maharashtra – 416 410, India	Mr. V. P. Jagadale Position: Director Contact No.91-9890441819 Email- jagdale.vp@gmail.com jsonsgroup.windpower@gmail.c om
16	Western Precicast Pvt Limited	Gat No 170, Near Kupwad Block, M.I.D.C, Village Savali Taluka Miraj, Dist. Sangli-418410, Maharashtra, India	Mr. V. P. Jagadale Position: Director Contact No. 91-9890441819 Email- vjagdale.vp@gmail.com jsonsgroup.windpower@gmail.c om
17	Metal Link Alloys Limited	36, Nirdhar, Mughbat X Lane, Girgaon, Mumbai- 400 004, Maharashtra, India	Mr. Bhavesh Soni Position: Marketing Manager Contact No. 91-9619890919 Email- metallink@bronze-

Sr. No.	Name of Project Promoter	Office Address	Contact Information
			ingot.com
18	Naik Sea Foods Limited	408, Emca House, 4 th Floor, 289, ShahidBhagat Singh Road, Fort, Mumbai- 400 088, India	Mr. AbhishekAmbukar Position: Export Executive Contact No. 91-22-22653052 Email- naikacc9@hotmail.com
19	RDS Construction Company	Deep BunglowChowk, 363/11, BalajiNiwas, Flat No:2, Cosmos Bank Lane, Shivajinagar, Pune- 411 016, Maharashtra, India	Mr. R. D. Shinde Position: Partner Contact No. 91-989067207 Email- mahacon@vsnl.net
20	Silverline Investment Co. Pvt. Ltd.	Oricon House, 4 th Floor, 12 Rampart Road, Fort, Mumbai400 023, Maharashtra, India	Mr. RajkumarSaraf Position: Director Contact No. 91-9869421174 Email- sarafdevelopers@gmail.com
21	Sushila Overseas,	Laxmi Market, Deoli (Tonk), Rajasthan, India	Mr. Surendra Jindal Position: Patner Contact No.91-9829285106 Email- masterjideoli@yahoo.co.in
22	Vostok (Fareast) Securities Pvt. Ltd.	Oricon House, 4 th Floor, 12 Rampart Road, Fort, Mumbai- 400 023 Maharashtra, India	Mr. PankajSaraf Position: Director Contact No. 91-22-22840268 Email- sarafdevelopers@gmail.com
23	Shree Ambica Auto Sales & Service	N H No-8, Amboli, PO-Kathor, Taluk- Kamraj, Surat 394150, Gujarat state, India	Mr. Shailesh V. Modi Position: Partner Contact No. 02621- 256271 Email- salmodi04@yahoo.comambica_auto@yahoo.co.in
24	Unirose Textile	40,41,65-68,Sector –B,	Mr. F. G. Shirgave

Sr. No.	Name of Project Promoter	Office Address	Contact Information
	Processors Pvt. Ltd.	Shri Laxmi Sahakari AoudyogikVasahat Ltd., Hatkanangale, Dist.Kolhapur-382715, Maharashtra state, India	Position: Director Contact No. 0230-2366228,2366120 Email- unirose678@rediffmail.com
25	B. S. C. Textiles	# 1189, Kalikadevi Road, Davangere- 577 001, Karnataka state, India	Mr. B. C. Shivakumar Position: Partner Contact No. 08192- 231348 Email- bscdvg@rediffmail.com nabhiraj@hotmail.com
26	P. Vijaya Kumar	# 174/1 Opp. B. T. Jain Temple, Narasaraj Road, Davangere- 577 001, Karnataka state, India	Mr. P. Vijaya Kumar Position: Proprietor Contact No.08192 277 045 sanghvivm@rediffmail.com
27	B. C. Umapathy (smaller HUF)	# 1189, Kalikadevi Road, Davangere- 577 001, Karnataka state, India	Mr. B. C. Umapathy Position: Proprietor Contact No.08192- 231348 hemrag@rediffmail.com
28	P. Mohan Lal	174/1 Opp. B. T. Jain Temple, Narasaraj Road, Davangere - 577 001, Karnataka state, India	Mr. P. Mohan Lal Position: Proprietor Contact No. 08192-277 045 Email- sanghvivm@rediffmail.com
29	S. K. Veerbhadrappa& Co	Poona – Bangalore Road, Davangere - 577 002, Karnataka state, India	Mr. S. K. Shashidhar Position: Partner Contact No. 08192-231376 Email- skv_co@yahoo.co.in
30	SreeVeerbhadreshwara Rice & Flour Mill	Malebennur, Harihar-577 530, Karnataka state, India	Mr. B. Siddalingappa Position: Partner Contact No. 91-9945689752 Email- hsnrao_tax@sify.com

Sr. No.	Name of Project Promoter	Office Address	Contact Information
31	GEM Lab. Pvt. Ltd.	# 22, Pamadi Tower, IIndFloor, Gandhinagar, Ist Main Road, Bangalore 560009, Karnataka state, India	Mr. G. M. Lingaraju Position: Director Contact No. 080 22203171 Email- gemplabs@rediffmail.com , gemplabs@gmail.com
32	Sri Anjaneya Cotton Mills Pvt. Ltd.	Jayalakshmi, Poona Bangalore Road, Davangere -577 002, Karnataka state, India	Mr. R. Manjunath Position: Proprietor Contact No. 08192- 231651, 272180 Email- chetak@anjaneya.intextile@anjaneya.in
33	Harshita Sales Corporation.	20, Shopping Centre, 1st Floor, Ichalkaranji, Kolhapur-416115, Maharashtra, India	Mrs. VidhishaBajoria Position: Proprietor Contact No. 0230 2420882 Email- harshita_sales@rediffmail.com
34	Ushahkal Nursing Home	Opp. ZillaParishad, Miraj Road, Sangli416 416, Maharashtra state, India	Dr. Milind P. Parikh Position: Partner Contact No.020-25533309, 25534322 Email- ushahkal@hotmail.com
35	Mahabal Auto Ancillaries Pvt Ltd	G. M. Ind., Estate, P.B.No. 38, Miraj-416 410, Maharashtra state, India	Mr. HemantMadhavrao Mahabal Position: Director Contact No. 0233-2672188 Email- hemant@mahabal.in
36	Mahabal Metals Pvt. Ltd	Miraj Block MIDC ,Plot No. 23, Miraj-416 410, Maharashtra state, India	Mr. HemantMadhavrao Mahabal Position: Director Contact No. 0233-2672188 Email- hemant@mahabal.in
37	MahalaxmiInfraprojects Limited	363/11, BalajiNiwas, Deep Bungalow Chowk, Shivaji Nagar, Pune, Maharashtra	Ms.Veena Shinde Position: Director Contact No. 91-720-25652102

Sr. No.	Name of Project Promoter	Office Address	Contact Information
		state, India	Email- mahacon@vsnl.net
38	Agarwal Packaging Pvt. Ltd.	364, Gokhale Road, Pune-411 016, Maharashtra state, India	Mr. Satish Gupta Position: Director Contact No. 91-20-25654309 Email- smg@agarwalpune.com
39	Choudhary Exports	D-12, Hanuman Nagar, Vaishali Nagar, Jaipur – 302021, Rajasthan state, India	Mr. VimalChoudhary Position: Partner Contact No.91-1412350736 Email- vimal@choudharexports.com
40	Runwal Developers Pvt. Ltd	Runwal&OmkarEsquare, 5th floor, Off: Eastern Express Highway, Opp. SionChunabhatti Signal, Sion (E), Mumbai 400022	Mr. A.V. Rajan Position: CFO Contact No. 91-9967005698 Email- mohan@runwal.com
41	Kulkarni Power Tools Ltd.	Shirol, District: Kolhapur-416 103, Maharashtra State, India	Mr. Dilip Kulkarni Position: Director Contact No. 91-9225838939 Email- suhas.kharote@kpt.co.in
42	Western Precicast Pvt Limited	Gat No 170, Near Kupwad Block, M.I.D.C, Village Savali Taluka Miraj, Dist. Sangli-418410, Maharashtra, India	Mr. V. P. Jagdale Position: Director Contact No. 91-9890441819 Email- vjagdale.vp@gmail.com jsonsgroup.windpower@gmail.com
43	P.M.P. Textiles Spinning Mills Limited	235, Mint Street, Park Town, Chennai, Tamilnadu, India	Mr. P. Muthuswamy Position: Managing Director Contact No. 91-9841014712 tslm1960@yahoo.co.in
44	RCR Eco-Power	405, Raikar Chambers, Deonar Village Road, Govandi, Mumbai- 400	Mr. Raul Rodrigues Position: Proprietor Contact No. 91-9320068848

Sr. No.	Name of Project Promoter	Office Address	Contact Information
		088, Maharashtra, India	Email- raul@balluff.co.in
45	Shankarlal	Kapad Market, P. Box No-162, 10/276, Ichalkaranji-416 115 ,Maharashtra State, India	Mr. S.K. Parik , Position: Proprietor Contact No. 91-9326010101 Email- pvc_sunflow@rediffmail.com kpr_sunfab@rediffmail.com
46	O. B. Agarwal	12/163, Near Congress Committee, Bungalow Road, Ichalkaranji-416 115, Maharashtra State, India	Mr. O. B. Agarwal Position: Proprietor Contact No. 0230-2424301 Email- suryayarn@rediffmail.com
47	Radha-Mohan Processors	Ward No. 15, Kudche Mala, Shri Shanti Niketan Building, H. No. 9, Chandur Road, Ichalkaranji-416 115, Maharashtra State, India	Mr. Chandrakant D. Mete Position: Partner Contact No. 0230-2422357,2435010 Email- radhamohanprocessors@gmail.com commahesh6588@yahoo.com
48	Swadeshi Dyeing & Bleaching Mills Private Limited	New Industrial Estate Limited, Plot No. 26, Ichalkaranji-416 115, Maharashtra State, India	Mr. Shrinivas M. Bohara Position: Director Contact No. 0230-2433109,2437533 Email- swadeshidb@gmail.com
49	Operational Energy group India (P) Pvt Ltd	5 th Floor, Gokul arcade east, 2 & 2 A, Sardar Patel road, Adayar Chennai-600 020, Tamilnadu State, India	Mr. Natarajan Position: Manager Contact No. 044-43949300 Email- natarajan@oegindia.com
50	Mahalingashetty & Co. Ltd.	64, Vishweshwar Nagar, Hubli – 580 032, Karnataka state, India	Mr. RajuMahalingashetty Position: Director Contact No. 91- 8362216020 Email-

Sr. No.	Name of Project Promoter	Office Address	Contact Information
			akkumar1@rediffmail.com
51	Sri Venkatachalapathy Spinning Mills Pvt. Ltd.	Post Box No. 150, Door No. 1/100, S. No. 454, Kothankulam Village, Srivilliputtur Road, Rajapalayam – 626 117, Tamil Nadu state, India	Mr. T. V. KaushikRajha Position: Director Contact No. 91-4563230318 Email- svsmills@rediffmail.com
52	Ramraj Handlooms	No. 22, ThulasiRao Street, Tirupur – 641 604, Tamil Nadu state, India	Thiru. K. R. Nagarajan Position: Managing Director Contact No. 91-421-2248147/48/49 Email- ramrajcotton@eth.net , tvln_asha@yahoo.co.in
53	N. Sumati	Ramraj building, 10 Sengunthapuram, 1 st street, Mangalam Road, Tirupur – 641 604, Tamil Nadu state, India	Mrs. N. Sumathi Position: Proprietor Contact No. 91-421-2248147/48/49 Email- ramrajcotton@eth.net tvln_asha@yahoo.co.in
54	K. R. Nagarajan	Ramraj building, 10 Sengunthapuram, 1 st street, Mangalam Road, Tirupur – 641 604, Tamil Nadu state, India	Mr. Thiru. K. R. Nagarajan Position: Proprietor Contact No. 91-421-2248147/48/49 Email- ramrajcotton@eth.net tvln_asha@yahoo.co.in
55	Badawe Engineers Pvt. Ltd.	26, Amar Society, Gulmohar Path, Erandwane, Pune- 411 004, Maharashtra, India	Mr. S. V. Badawe Position: Director Contact No. 020-25433879 Email- bep1@badawegroup.com
56	Pragati Glass Pvt. Ltd.,	111, CamjiShamji	Mr. H. R. Bhandari

Sr. No.	Name of Project Promoter	Office Address	Contact Information
		Industrial Complex, 9, L. B. S. Marg (W), Mumbai- 400 070, Maharashtra, India	Position: President Contact No. 91-9930453208 Email- president@pragatiglass.com
57	Siddharth Infra Tech Pvt. Ltd	141, NaviPeth, Jalgaon- 425 001 (M.S.), Maharashtra, India	Mr. Sunil Kotecha Position: Proprietor Contact No. 91-9822372223 Email- smkotecha@yahoo.com
58	Agarwal Enterprises	364, Gokhale Road, Pune – 411 016, Maharashtra state, India	Mr. Satish Gupta Position: Director Contact No. 91-20-25654309 Email- smg@agarwalpune.com
59	Unique Sugars Ltd.	Rawal Industrial Estate, Dadanagar, Doindaicha – 425 408, Maharashtra state, India	Mr. P. J. Dewang Position: Sr. Manager Contact No. 91-9422286328 Email- mumbai@universalstarch.com
60	Jaychandra Agro Industries Pvt. Ltd.		
61	Shree Ram Hotels	Residency Road, Jodhpur – 342 001, Rajasthan state, India	Mr. B. L. Soni Position: Director Contact No. 020-2671100 Email- hotels@shreeramgum.com
62	ChhabraSyncotex Ltd	Chhabra Mansion, Opp. Water Works, Pur Road, Bhilwara – 311 001, Rajasthan state, India	Mr. K. L. Chhabra Position: Director Contact No. 91-1482-242511 Email- info@chhabragroup.in
63	Sona Processors (India) Ltd.	GuwardiChittorgarh Road, P. B. No. 73, Bhilwara – 311 001, Rajasthan state, India	Mr. S. K. Surana Position: General Manager Contact No. 91-1482-242511 Email- sonaprocess@sancharnet.in
64	Delhi Rajasthan	DRTC House, Behind	Mr. PremeshBhootra

Sr. No.	Name of Project Promoter	Office Address	Contact Information
	Transport Co. Ltd.	Olympic Complex, Jodhpur – 342 001, Rajasthan state, India	Position: Director Contact No. 91-291-2633673 Email- jodhpur@drtcindia.com
65	Metro Cement and Mines Pvt. Ltd.	Mahesh Hostel Complex, 2nd Floor, Opp. Bombay Motors, Chopasani Road, Jodhpur – 342 003, Rajasthan state, India	Mr. Ramesh Rathi Position: Director Contact No. 91-291-2654000 Email- jodhpur@srspl.com
66	SarvodayaSutings Ltd	Plot No. 1-S-1 to 4, Opposite Mewar Mills, BasantVihar, Bhilwara, Rajasthan, India	Mr. Sushil Kumar Jain Position: Managing Director Contact No. 01482-223300 Email- rgbalia31@rediffmail.com
67	Free India Energy Ltd	105, 106, 107, Prime Plaza, First Floor, J.V. Patel Compound, BalashethMadurkar Road, Elphinstone Road, Mumbai- 400 013, Maharashtra State, India	Mr. Manish Mehta Position: Director Contact No. 91-9324069080 Email- shrikantkawde@rediffmail.com
68	S C Shettar and Sons	Hirepath, Hubli – 580 028, Karnataka state, India	Mr. Vijay Kumar Shettar Position: Proprietor Contact No. 91-836-2362229 Email- scshettar@airtelmail.in
69	Swarna Constructions	G-6, Satellite Complex, Koppikar Road, Hubli – 580 023, Karnataka state, India	Mr. Ch. V. S. V. Prasad Position: Partner Contact No. 91-836-2369898 Email- chvsvp66@gmail.com
70	Suresh Kumar Sharma (HUF)	BaidyanathBhawan, Great Nag Road, Nagpur – 9, Maharashtra state, India	Mr. Suresh Kumar Sharma Position: Karta Contact No. 91-71-26644949 Email- gopalsbab@yahoo.com
71	BEML Limited	BEML Soudha, No. 23/1,	Mr. Suresh Vastrad

Sr. No.	Name of Project Promoter	Office Address	Contact Information
		4th Main, S. R. Nagar, Bangalore, Karnataka state, India	Position: General Manager Contact No. 91-80-22963146 Email- cp2@beml.co.in

Roles/responsibilities for the project proponent(s):

- Review the overall performance of project.
- Preparing & submitting supporting documents for Verification of VERs.
- Management of all electricity generation data.

1.4 Other Entities Involved in the Project

MITCON Consultancy & Engineering Services Ltd.
Kubera Chambers, Shivajinagar Pune,
State: Maharashtra INDIA -411 005

Role & Responsibility of MITCON:

Verification of data – Calculation of VERs based on issued credit report/JMR report and preparation of carbon credit procedural documents

1.5 Project Start Date

Project start date: 14/03/2004. [Based on commissioning date of M/s Free India Energy Ltd (J 225) in the grouped project activity]

1.6 Project Crediting Period

Crediting period start date: 01/04/2006 to 31/03/2016 (renewable at most two time)

Project registration date: 17/11/2009

First verification period: 01/04/2006 to 31/12/2007

Second Verification Period: 01/01/2008 to 31/07/2009

Third Verification Period: 01/08/2009 to 30/06/2010

Fourth Verification Period: 01/07/2010 to 31/10/2011

The project has a fixed crediting period of 10 years which is renewable for at most two times. The start date of the crediting period of the project activity is 01/04/2006.

1.7 Project Location

Details of the location of the project activity:

Sr. No.	Name of Project Promoter	WTG Unique ID No.	GPS coordinates	WTG location-Village	District
1	Pragati Agencies	G-316	17°01'N 74°35'E	Dahiwadi	Sangli
2	Umang Textiles	W-06	17°08'N 74°59'E	Nagaj	Sangli
3	Ankur Textiles	W-19	17°08'N 74°59'E	Shelkewadi	Sangli
4	Vandana Textiles	W-20	17°08'N 74°59'E	Kundlapur	Sangli
5	Sun Irrigation System (P) Ltd.	W-18	17°08'N 74°59'E	Shelkewadi	Sangli
6	Jathar Textiles Pvt Ltd.	W-22	17°08'N 74°59'E	Kundlapur	Sangli
7	B. C. Chadrashekhar	W-26	17°08'N 74°59'E	Kundlapur	Sangli
8	B.C. Shivakumar	W-52	17°08'N 74°59'E	Garjewadi	Sangli
9	Aerolex Cablenet	G-324	17°08'N 74°59'E	Jarandi	Sangli
10	B. S. Channabasappa& Sons	G-334	17°08'N 74°59'E	Tisangi	Sangli
11	Air Control (India) Pvt. Ltd.,	GP-99	16°46'N 73°86'E	Sonawade	Sangli
12	Bengal Cardboard Industries & Printers Pvt. Ltd.	K-318	20°98'N 73°86'E	Aichale	Dhule
13	Chaphekar Engineering Pvt. Ltd.	GP-42	16°46'N 73°86'E	Shirsatwadi	Sangli
14	Economic Explosives Limited.	K -505	16°36'N 74°25'E	Vavad	Nandurbar
15	Jsons Founry Private Limited	GP102	17°01'N 74°35'E	Sonawade	Sangli
16	Jsons Founry Private Limited	GP101	17°01'N 74°35'E	Sonawade	Sangli

Sr. No.	Name of Project Promoter	WTG Unique ID No.	GPS coordinates	WTG location-Village	District
17	Jsons Fountry Private Ltd.	GP31	17°01'N 74°35'E	Charan	Sangli
18	Western Precicast Pvt Limited	K -437	21°11'N 74°13'E	Chakla	Nandurbar
19	Metal Link Alloys Limited	K -258	16°46'N 73°86'E	Amkhel	Dhule
20	Naik Sea Foods Limited	K -308	20°98'N 74°31'E	Aichale	Dhule
21	RDS Construction Company	K -322	20°98'N 74°31'E	Aichale	Dhule
22	Silverline Investment Co. Pvt. Ltd.	K-317	20°98'N 74°31'E	Aichale	Dhule
23	Sushila Overseas,	W-23	17°01'N 74°31'E	Shelkewadi	Sangli
24	Vostok (Fareast) Securities Pvt. Ltd.	K-309	20°98'N 74°31'E	Aichale	Dhule
25	Shree Ambica Auto Sales & Service	G-87	17°11' N 74°21'E	Jarandi	Sangli
26	Unirose Textile Processors Pvt. Ltd.	W-60	16°51' N 74°35'E	Tisangi	Sangli
27	B. S. C. Textiles	W-62	16°51' N 74°35'E	Tisangi	Sangli
28	P. Vijaya Kumar	W-30	16°51' N 74°35'E	Wagholi	Sangli
29	B. C. Umapathy (smaller HUF)	W-34	16°51' N 74°35'E	Nagaj	Sangli
30	P. Mohan Lal	W-33	16°51' N 74°35'E	Wagholi	Sangli
31	S. K. Veerbhadrappa & Co	W-04	16°51' N 74°35'E	Shelkewadi	Sangli
32	SreeVeerbhadrashwara Rice & Flour Mill	W-47	16°51' N 74°35'E	Garjewadi	Sangli
33	GEM Lab. Pvt. Ltd.	K-252	20°58' N 74°19'E	Amkhel	Dhule
34	GEM Lab. Pvt. Ltd.	J-119	20°58' N 74°19'E	Panhalipada	Dhule
35	Sri Anjaneya Cotton Mills Pvt. Ltd.	K-255	20°59' N 74°19'E	Amkhel	Dhule
36	Sri Anjaneya Cotton Mills Pvt. Ltd.	K-261	20°59' N 74°19'E	Amkhel	Dhule
37	Harshita Sales Corporation.	W-54	16°51' N 74°35'E	Garjewadi	Sangli
38	Ushahkal Nursing Home	W-15	16°51' N 74°35'E	Nagaj	Sangli
39	Mahabal Auto Ancillaries Pvt Ltd	G-360	16°52' N 74°34'E	Birenwadi	Sangli

Sr. No.	Name of Project Promoter	WTG Unique ID No.	GPS coordinates	WTG location-Village	District
40	Mahabal Metals Pvt. Ltd	K-536	21°11' N 74°13'E	Akrale	Nandurbar
41	MahalaxmiInfraprojects Limited	K-340	21°11' N 74°19 'E	Gangapur	Nandurbar
42	Agarwal Packaging Pvt. Ltd.	G-206	16°59' N 74°07 'E	Kundalpur	Sangli
43	Agarwal Packaging Pvt. Ltd.	GP-36	16°59' N 74°07 'E	Panumbre	Sangli
44	Choudhary Exports	J-082	20°54' N 74°47' E	Jamde	Dhule
45	Runwal Developers Pvt. Ltd	K-06	21°11' N 74°19 'E	Khori	Dhule
46	Runwal Developers Pvt. Ltd	K-12	21°11' N 74°19 'E	Khori	Dhule
47	Kulkarni Power Tools Ltd.	J-078	21°16' N 73°56 'E	Jamde	Dhule
48	Jsons Foundry Private Limited	1445	08°16'N 77°42'E	Veppilankulam	Tirunelveli
49	Jsons Foundry Private Limited	1445	08°16'N 77°42'E	Veppilankulam	Tirunelveli
50	Jsons Foundry Private Limited	1445	08°16' N 77°42'E	Veppilankulam	Tirunelveli
51	Jsons Foundry Private Limited	1445	08°16' N 77°42'E	Veppilankulam	Tirunelveli
52	Jsons Foundry Private Limited	1445	08°16' N 77°42'E	Veppilankulam	Tirunelveli
53	Jsons Foundry Private Limited	1445	08°16' N 77°42'E	Veppilankulam	Tirunelveli
54	Jsons Foundry Private Limited	2159	08°16' N 77°42'E	Veppilankulam	Tirunelveli
55	Western Precicast Pvt. Ltd	2163	08°16' N 77°42'E	Veppilankulam	Tirunelveli
56	P.M.P. Textiles Spinning Mills Limited	497	11°00' N 76°06'E	Anthiyur	Coimbatore
57	RCR Eco-Power	1163	08°16' N 77°42'E	Veppilankulam	Tirunelveli
58	RCR Eco-Power	1163	08°16' N 77°42'E	Myvadi	Tirunelveli
59	RCR Eco-Power	1202	08°16' N 77°42'E	Myvadi	Tirunelveli
60	RCR Eco-Power	2156	08°16' N 77°42' E	Thandayarkulam	Tirunelveli
61	RCR Eco-Power	2442	08°16' N 77°42' E	Kulayaneri	Tirunelveli
62	Shankarlal	2149	08°16' N 77°42' E	Veppilankulam	Tirunelveli
63	B. S. C. Textiles	1870	08°16' N 77°42' E	Veppilankulam	Tirunelveli
64	B. S. C. Textiles	1871	08°16' N 77°42' E	Perungudi	Tirunelveli
65	B. S. C. Textiles	2116	08°16' N 77°42' E	Perungudi	Tirunelveli
66	P. Vijaya Kumar	1904	08°16' N 77°42' E	Perungudi	Tirunelveli
67	P. Vijaya Kumar	1496	08°16' N 77°42' E	Thandayarkul	Tirunelveli

Sr. No.	Name of Project Promoter	WTG Unique ID No.	GPS coordinates	WTG location-Village	District
				um	
68	O. B. Agarwal	2147	08°16' N 77°42' E	Veppilankulum	Tirunelveli
69	Radha-Mohan Processors	1872	08°16' N 77°42' E	Veppilankulum	Tirunelveli
70	Swadeshi Dyeing & Bleaching Mills Private Limited	1875	08°16' N 77°42' E	Veppilankulum	Tirunelveli
71	B. S. Channabasappa& Sons	1874	08°16' N 77°42' E	Veppilankulum	Tirunelveli
72	B. S. Channabasappa& Sons	1873	08°16' N 77°42' E	Veppilankulum	Tirunelveli
73	B. S. Channabasappa& Sons	2117	08°16' N 77°42' E	Veppilankulum	Tirunelveli
74	P. Mohan Lal	1740	08°16' N 77°42' E	Thandayarkulum	Tirunelveli
75	P. Mohan Lal	1505	08°16' N 77°42' E		
76	Operational Energy group India (P) Pvt Ltd	1242	08°16' N 77°42'E	Veppilankulum	Tirunelveli
77	Operational Energy group India (P) Pvt Ltd	1242	08°16' N 77°42'E	Veppilankulum	Tirunelveli
78	Mahalingashetty& Co. Ltd.	D 62	10°21' N 77°57' E	Rajampatti	Dindigul
79	Sri Venkatachalapathy Spinning Mills Pvt. Ltd.	1602	08° 44' N 77°42'E	Karuvantha	Tirunelveli
80	Sri Venkatachalapathy Spinning Mills Pvt. Ltd.	16093	08° 44' N 77°42'E	Karuvantha	Tirunelveli
81	Choudhary Exports	1191	11° 21' N 77°44'E	Govindpuram	Erode
82	Ramraj Handlooms	1176	08°10' N 77°34' E	Karungulam	Tirunelveli
83	Ramraj Handlooms	1057	09°48' N 77°19' E	Uthupalayam	Erode
84	Ramraj Handlooms	1961	08°18' N 77°27' E	Azhagiapandiapuram	Tirunelveli
85	N. Sumati	401	10°58' N 77°17' E	Sellakarachal	Coimbatore
86	K. R. Nagarajan	400	10°58' N 77°17' E	Sellakarachal	Coimbatore
87	Air Control (India) Pvt. Ltd.,	SEL/600 /07-08/0906	21°63' N 69°06'E	Kuchhadi	Porbandar
88	Badawe Engineers Pvt. Ltd.	SEL/600	21°63' N 69°6' E	Kuchhadi	Porbandar

Sr. No.	Name of Project Promoter	WTG Unique ID No.	GPS coordinates	WTG location-Village	District
		/07-08/0922			
89	Pragati Glass Pvt. Ltd.,	SEL/125 0/06-07/0237	22°46'N 70°06'E	Lamba	Jamnagar
90	Siddharth Infra Tech Pvt. Ltd (Siddharth Construction)	SEL/600 /07-08/0904	21°63' N 69°60' E	Kuchhadi	Porbandar
91	Agarwal Enterprises	SEL/600 /07-08/0979	21°38' N 69°36' E	Visawada	Porbandar
92	Agarwal Enterprises	SEL/600 /07-08/0980	21°38' N 69°36' E	Visawada	Porbandar
93	Unique Sugars Ltd.	SEL/150 0/06-07/0441	23°11' N 68°54' E	Suthri	Kutch
94	Jaychandra Agro Industries Pvt. Ltd.	SEL/600 /06-07/0443	23°11' N 68°59'E	Sandhan	Kutch
95	Shree Ram Hotels	J-363	26°55' N 70°39'E	Pohra	Jaisalmer
96	ChhabraSyncotex Ltd	J-414	26°53' N 71°00'E	Sadiya	Jaisalmer
97	ChhabraSyncotex Ltd.	J-166	26°55' N 70°51'E	Barabaug	Jaisalmer
98	ChhabraSyncotex Ltd.	J-367	26°55' N 70°39'E	Pohra	Jaisalmer
99	Sona Processors (India) Ltd.	J-370	26°55' N 70°39'E	Pohra	Jaisalmer
100	Delhi Rajasthan Transport Co. Ltd.	J-141	26°55' N 70°51'E	Barabaug	Jaisalmer
101	Metro Cement and Mines Pvt. Ltd.	J-160	26°55' N 70°51'E	Barabaug	Jaisalmer
102	SarvodayaSutings Ltd	J-49	26°91'N 70°90'E	Baramsar	Jaisalmer

Sr. No.	Name of Project Promoter	WTG Unique ID No.	GPS coordinates	WTG location-Village	District
103	SarvodayaSuitings Ltd	J-43	26°91'N 70°90'E	Baramsar	Jaisalmer
104	Free India Energy Ltd	J225	22°28' N70°04'E	Soda	Jaisalmer
105	S C Shettar and Sons	K-303	15°12' N 75°53'E	Kappatgudda	Gadag
106	Swarna Constructions	K-304	15°12' N 75°53'E	Kappatgudda	Gadag
107	Suresh Kumar Sharma (HUF)	K-229	15°25' N 75°38'E	Kappatgudda	Gadag
108	BEML Limited	K-317	15°25' N 75°38'E	Bidnahal, Kappatgudda hills	Gadag
109	BEML Limited	K-318	15°25' N 75°38' E		Gadag
110	BEML Limited	K-319	15°25' N 75°38' E		Gadag
111	BEML Limited	K-320	15°25' N 75°38' E		Gadag

1.8 Title and Reference of Methodology

Monitoring Methodology

According to UNFCCC guideline and Voluntary Carbon Standard (VCS 3.1), the project falls under Large-scale projects activity and details for monitoring methodology

Title: “Consolidated baseline methodology for grid-connected electricity generation from Renewable Sources” ACM 0002 – Version 10, EB 47

Sectoral Scope: 1, Energy industries (Renewable / non-renewable sources)

Type: Renewable Energy Project (Large Scale)

Reference: The methodology refers to ACM 0002 to the latest approved version of following tools-
 “Tool for the demonstration and assessment of additionality” version 05.2
 “Tool to calculate the emission factor for an electricity system” version 01.1

2 IMPLEMENTATIONSTATUS

2.1 Implementation Status of the Project Activity

Sr. No.	Name of Project Promoter	Installed Capacity (MW)	Commissioning Date	Village	District
Maharashtra					
1	Pragati Agencies	1.25	31/03/2006	Dahiwadi	Sangli
2	Umang Textiles	0.6	21/06/2006	Nagaj	Sangli
3	Ankur Textiles	0.6	30/03/2006	Shelkewadi	Sangli
4	Vandana Textiles	0.6	31/03/2006	Kundlapur	Sangli
5	Sun Irrigation System (P) Ltd.	0.6	30/03/2006	Shelkewadi	Sangli
6	Jathar Textiles Pvt. Ltd.	0.6	31/03/2006	Kundlapur	Sangli
7	B. C. Chadrashekhar	0.6	19/05/2006	Kundlapur	Sangli
8	B.C. Shivakumar	0.6	19/05/2006	Garjewadi	Sangli
9	Aerolex Cablenet	1.25	28/03/2006	Jarandi	Sangli
10	B. S. Channabasappa& Sons	1.25	31/03/2006	Tisangi	Sangli
11	Air Control (India) Pvt. Ltd.	0.6	31/03/2008	Sonawade	Sangli
12	Bengal Cardboard Industries & Printers Pvt. Ltd.	0.6	01/11/2006	Aichale	Dhule
13	Chaphekar Engineering Pvt. Ltd.	0.6	30/12/2006	Shirsatwadi	Sangli
14	Economic Explosives Limited	1.25	31/03/2006	Vavad	Nandurbar
15	Jsons Foundry Private Limited	0.6	05/08/2008	Sonawade	Sangli
16	Jsons Foundry Private Limited	0.6	19/04/2008	Sonawade	Sangli
17	Jsons Foundry Private Limited	0.6	28/03/2007	Charan	Sangli
18	Western Precicast Pvt Ltd	1.25	29/03/2006	Chakla	Nandurbar
19	Metal Link Alloys Ltd.	1.25	26/05/2006	Amkhel	Dhule
20	Naik Sea Foods Ltd.	0.6	08/11/2006	Aichale	Dhule
21	RDS Construction Company	0.6	08/11/2006	Aichale	Dhule
22	Silverline Investment Co. Pvt. Ltd.	0.6	01/11/2006	Aichale	Dhule
23	Sushila Overseas,	0.6	19/05/2006	Shelkewadi	Sangli
24	Vostok (Fareast) Securities Pvt. Ltd.	0.6	20/12/2006	Aichale	Dhule
25	Shree Ambica Auto Sales & Service	1.25	31/07/2006	Jarandi	Sangli
26	Unirose Textile Processors Pvt. Ltd.	0.6	18/08/2006	Tisangi	Sangli
27	B. S. C. Textiles	0.60	29/09/2006	Tisangi	Sangli
28	P. Vijaya Kumar	0.60	29/09/2006	Wagholi	Sangli

Sr. No.	Name of Project Promoter	Installed Capacity (MW)	Commissioning Date	Village	District
29	B. C. Umapathy (smaller HUF)	0.60	29/09/2006	Nagaj	Sangli
30	P. Mohan Lal	0.60	29/09/2006	Wagholi	Sangli
31	S. K. Veerbhadrappa & Co	0.60	29/09/2006	Shelkewadi	Sangli
32	SreeVeerbhadrashwara Rice & Flour Mill	0.60	29/09/2006	Garjewadi	Sangli
33	GEM Lab. Pvt. Ltd.	1.25	11/05/2006	Amkhel	Dhule
34	GEM Lab. Pvt. Ltd.	1.25	16/08/2006	Panhalipada	Dhule
35	Sri Anjaneya Cotton Mills Pvt. Ltd.	1.25	23/03/2006	Amkhel	Dhule
36	Sri Anjaneya Cotton Mills Pvt. Ltd.	1.25	29/03/2006	Amkhel	Dhule
37	Harshita Sales Corporation	0.60	30/09/2006	Garjewadi	Sangli
38	Ushahkal Nursing Home	0.60	26/09/2006	Nagaj	Sangli
39	Mahabal Auto Ancillaries Pvt. Ltd	1.25	25/03/2006	Birenwadi	Sangli
40	Mahabal Metals Pvt. Ltd	1.25	29/03/2007	Akrale	Nandurbar
41	MahalaxmiInfraprojects Limited	1.50	09/03/2007	Gangapur	Nandurbar
42	Agarwal Packaging Pvt. Ltd.	1.25	29/09/2005	Kundalpur	Sangli
43	Agarwal Packaging Pvt. Ltd.	0.6	30/12/2006	Panumbre	Sangli
44	Choudhary Exports	1.25	08/11/2006	Jamde	Dhule
45	Runwal Developers Pvt. Ltd.	1.25	31/03/2004	Khori	Dhule
46	Runwal Developers Pvt. Ltd.	1.25	25/03/2005	Khori	Dhule
47	Kulkarni Power Tools Ltd.	1.25	29/09/2006	Jamde	Dhule
48	Jsons Foundry Private Limited	0.225	28/09/2005	Veppilankulam	Tirunelveli
49	Jsons Foundry Private Limited	0.225	28/09/2005	Veppilankulam	Tirunelveli
50	Jsons Foundry Private Limited	0.225	30/09/2005	Veppilankulam	Tirunelveli
51	Jsons Foundry Private Limited	0.225	30/09/2005	Veppilankulam	Tirunelveli
52	Jsons Foundry Private Limited	0.225	21/02/2007	Veppilankulam	Tirunelveli
53	Jsons Foundry Private Limited	0.225	21/02/2007	Veppilankulam	Tirunelveli
54	Jsons Foundry Private Limited	0.225	21/02/2007	Veppilankulam	Tirunelveli
55	Western Precicast Pvt. Ltd	0.225	24/02/2007	Veppilankulam	Tirunelveli
56	P.M.P. Textiles Spinning Mills Limited	0.5	09/09/2004	Anthiyur	Coimbatore
57	RCR Eco-Power	0.225	22/03/2005	Veppilankulam	Tirunelveli
58	RCR Eco-Power	0.225	22/03/2005	Veppilankulam	Tirunelveli
59	RCR Eco-Power	0.35	31/03/2006	Myvadi	Tirunelveli

Sr. No.	Name of Project Promoter	Installed Capacity (MW)	Commissioning Date	Village	District
60	RCR Eco-Power	0.35	15/02/2007	Thandayarkulum	Tirunelveli
61	RCR Eco-Power	0.6	27/09/2007	Kulayaneri	Tirunelveli
62	Shankarlal	0.225	03/02/2007	Veppilankulum	Tirunelveli
63	B. S. C. Textiles	0.225	31/03/2006	Veppilankulum	Tirunelveli
64	B. S. C. Textiles	0.225	31/03/2006	Veppilankulum	Tirunelveli
65	B. S. C. Textiles	0.225	19/12/2006	Veppilankulum	Tirunelveli
66	P. Vijaya Kumar	0.225	21/04/2006	Perungudi	Tirunelveli
67	P. Vijaya Kumar	0.225	30/09/2005	Thandayarkulum	Tirunelveli
68	O. B. Agarwal	0.225	03/02/2007	Veppilankulum	Tirunelveli
69	Radha-Mohan Processors	0.225	31/03/2006	Veppilankulum	Tirunelveli
70	Swadeshi Dyeing & Bleaching Mills Private Limited	0.225	31/03/2006	Veppilankulum	Tirunelveli
71	B. S. Channabasappa& Sons	0.225	31/03/2006	Veppilankulum	Tirunelveli
72	B. S. Channabasappa& Sons	0.225	31/03/2006	Veppilankulum	Tirunelveli
73	B. S. Channabasappa& Sons	0.225	19/12/2006	Veppilankulum	Tirunelveli
74	P. Mohan Lal	0.225	29/03/2006	Thandayarkulum	Tirunelveli
75	P. Mohan Lal	0.225	30/09/2005	Thandayarkulum	Tirunelveli
76	Operational Energy group India (P) Pvt Ltd	0.225	30/03/2005	Veppilankulum	Tirunelveli
77	Operational Energy group India (P) Pvt Ltd	0.225	31/03/2005	Veppilankulum	Tirunelveli
78	Mahalingashetty& Co. Ltd.	0.6	28/03/2007	Rajampatti	Dindigul
79	Sri Venkatachalapathy Spinning Mills Pvt. Ltd.	0.75	13/03/2006	Karuvantha	Tirunelveli
80	Sri Venkatachalapathy Spinning Mills Pvt. Ltd.	0.75	27/03/2006	Karuvantha	Tirunelveli
81	Choudhary Exports	1.25	30/03/2006	Govindpuram	Erode
82	Ramraj Handlooms	0.85	24/03/2005	Karungulam	Tirunelveli
83	Ramraj Handlooms	0.75	30/12/2005	Uthupalayam	Erode
84	Ramraj Handlooms	0.75	31/07/2006	Azhagiapandiapuram	Tirunelveli
85	N. Sumati	0.25	29/03/2005	Sellakarachal	Coimbatore
86	K. R. Nagarajan	0.25	29/03/2005	Sellakarachal	Coimbatore
87	Air Control (India) Pvt. Ltd.	0.6	29/03/2008	Kuchhadi	Porbandar
88	Badawe Engineers Pvt. Ltd.	0.6	29/03/2008	Kuchhadi	Porbandar
89	Pragati Glass Pvt. Ltd.,	1.25	28/02/2007	Lamba	Jamnagar
90	Siddharth Infra Tech Pvt. Ltd	0.6	29/03/2008	Kuchhadi	Porbandar

Sr. No.	Name of Project Promoter	Installed Capacity (MW)	Commissioning Date	Village	District
91	Agarwal Enterprises	0.6	29/03/2008	Visawada	Porbandar
92	Agarwal Enterprises	0.6	29/03/2008	Visawada	Porbandar
93	Unique Sugars Ltd.	1.5	02/04/2007	Suthri	Kutch
94	Jaychandra Agro Industries Pvt. Ltd.	0.6	02/05/2007	Sandhan	Kutch
95	Shree Ram Hotels	0.35	30/03/2006	Pohra	Jaisalmer
96	ChhabraSyncotex Ltd.	0.6	15/03/2008	Sadiya	Jaisalmer
97	ChhabraSyncotex Ltd.	0.6	29/03/2007	Barabaug	Jaisalmer
98	ChhabraSyncotex Ltd.	0.35	30/03/2006	Pohra	Jaisalmer
99	Sona Processors (India) Ltd.	0.35	30/03/2006	Pohra	Jaisalmer
100	Delhi Rajasthan Transport Co. Ltd.	0.35	18/10/2006	Barabaug	Jaisalmer
101	Metro Cement and Mines Pvt. Ltd.	0.6	29/03/2007	Barabaug	Jaisalmer
102	SarvodayaSuitings Ltd	0.35	30/09/2004	Baramsar	Jaisalmer
103	SarvodayaSuitings Ltd	0.35	31/03/2004	Baramsar	Jaisalmer
104	Free India Energy	1.25	14/03/2004	Soda	Jaisalmer
105	S C Shettar and Sons	1.25	17/03/2008	Kappatgudda	Gadag
106	Swarna Constructions	1.25	31/03/2008	Kappatgudda	Gadag
107	Suresh Kumar Sharma (HUF)	1.25	23/09/2006	Harogiri/Kappatgudda	Gadag
108	BEML Limited	1.25	20/12/2007	Bidnahal, Kappatgudda hills	Gadag
109	BEML Limited	1.25	20/12/2007		Gadag
110	BEML Limited	1.25	20/12/2007		Gadag
111	BEML Limited	1.25	20/12/2007		Gadag
	Total	74.90			

All the WEGs are running satisfactorily during the reported monitoring period. There are no special events occur during the reported monitoring period. Hence, no impact occurs on the GHG reduction from the project activity.

The project activity is implemented in line with the registered VCS PD. There is no change in the installed capacity of the installed WTGs and the electricity generated from the WTG is exported to grid. Hence the project activity is in compliance as envisaged in the VCS PD.

Further M/s Jsons Foundry Private Limited & M/s Western Precicast Pvt. Ltd has been withdrawing their WTGs for Tamil Nadu site of capacity 1.35 MW (6 X 0.225 MW) of HTSC No. 1445, 0.225 MW of HTSC No. 2159 and 0.225 MW of HTSC No. 2163 from “Grouped Wind Power Project in India” for entire crediting period².

2.2 Deviations from the Monitoring Plan

Not Applicable

2.3 Grouped Project

Not Applicable as the capacity of the project activity is fixed for entire crediting period and no inclusions will be made.

3 DATA AND PARAMETERS

3.1 Data and Parameters Available at Validation

Data Unit / Parameter:	EF _{grid, CM, y}							
Data unit:	t CO ₂ / MWh							
Description:	Combined Margin CO ₂ emission factor of the NEWNE and Southern Grid							
Source of data:	CO ₂ Baseline Database for the Indian Power Sector User Guide, Version 04 Central Electricity Authority (CEA), Govt. of India.							
Value applied:	<table><tr><th>Regional Grid</th><th>EF_{grid, CM, y}</th></tr><tr><td>NEWNE Regional Grid</td><td>0.906 tCO₂/MWh</td></tr><tr><td>Southern Regional Grid</td><td>0.927 tCO₂/MWh</td></tr></table>		Regional Grid	EF _{grid, CM, y}	NEWNE Regional Grid	0.906 tCO ₂ /MWh	Southern Regional Grid	0.927 tCO ₂ /MWh
Regional Grid	EF _{grid, CM, y}							
NEWNE Regional Grid	0.906 tCO ₂ /MWh							
Southern Regional Grid	0.927 tCO ₂ /MWh							
Purpose of the data:	Data are used for baseline emission calculation							
Any comment:								

3.2 Data and Parameters Monitored

²The letter of withdrawal of PP has been provided to DOE for verification.

Data Unit / Parameter:	EGy						
Data unit:	kWh						
Description:	Net electricity generated and delivered to the grid by WTG in year 'y'						
Source of data:	Data is obtained from the State Electricity Board (SEB)'s official source to use from - • Maharashtra State – MSEDCL • Gujarat – GUVNL • Rajasthan – JVVNL • Tamil Nadu – TNEB • Karnataka - KPTCL						
Description of measurement methods and procedures to be applied:	Monitoring: Tri-vector meter will be used for monitoring Data Type: Measured & signed Jointly by State utility officials & PPs representative. Frequency: Hourly measured Recording: Monthly from Main meter at state utility substation Archiving Policy: Paper & Electronic Responsibility: Project Head would be responsible for regular calibration of the meter. Calibration Frequency: Annually, as per the schedule mentioned in PPA						
Frequency of monitoring/recording:	Continuous monitoring and monthly recording						
Value monitored:	<table border="1"> <thead> <tr> <th>Vintage</th><th>EGy (MWh)</th></tr> </thead> <tbody> <tr> <td>01/07/2010 to 31/12/2010</td><td>62,716</td></tr> <tr> <td>01/01/2011 to 31/10/2011</td><td>112,661</td></tr> </tbody> </table>	Vintage	EGy (MWh)	01/07/2010 to 31/12/2010	62,716	01/01/2011 to 31/10/2011	112,661
Vintage	EGy (MWh)						
01/07/2010 to 31/12/2010	62,716						
01/01/2011 to 31/10/2011	112,661						
Monitoring equipment:	Please refer Annexure- I for monitoring equipment details. In case where the scheduled calibration has not carried out or the calibration certificate not available, as per CDM EB guideline EB 52 Annex 60 has made applicable for that specific period.						
QA/QC procedures to be applied:	The project electricity generation is based on the net units displaced as measured by main metering system installed at the interconnection point						

	(substation point). The net electricity exported to the grid is cross checked electricity sales receipt (Invoice).
Calculation method:	Please refer section C wherever applicable
Any comment:	Data will be archived during the whole crediting period + 2 years

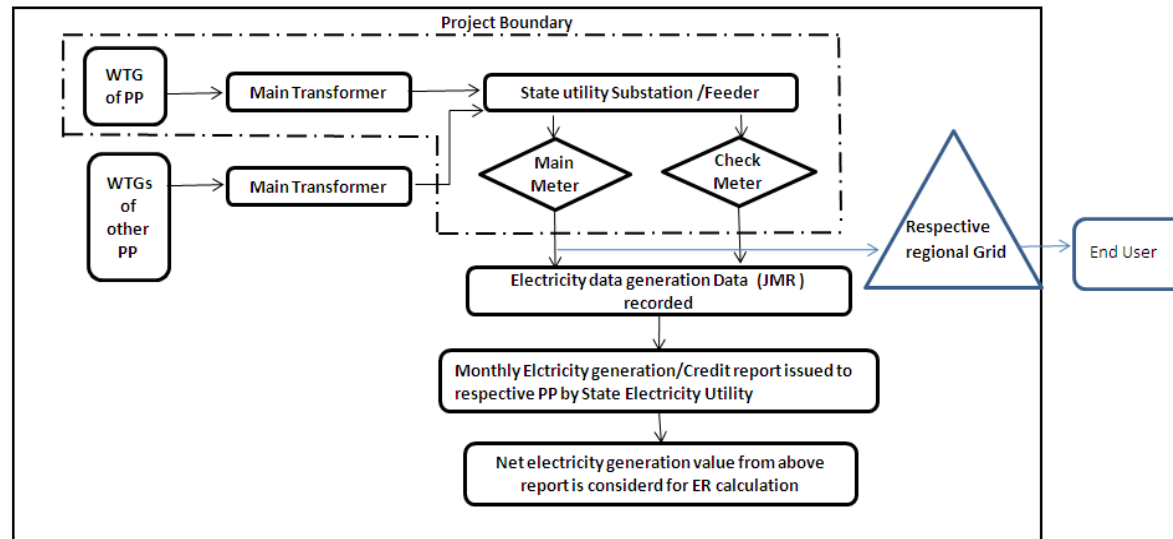
3.3 Description of the Monitoring Plan

I) Data collection, aggregation, recording, calculation and reporting procedure:

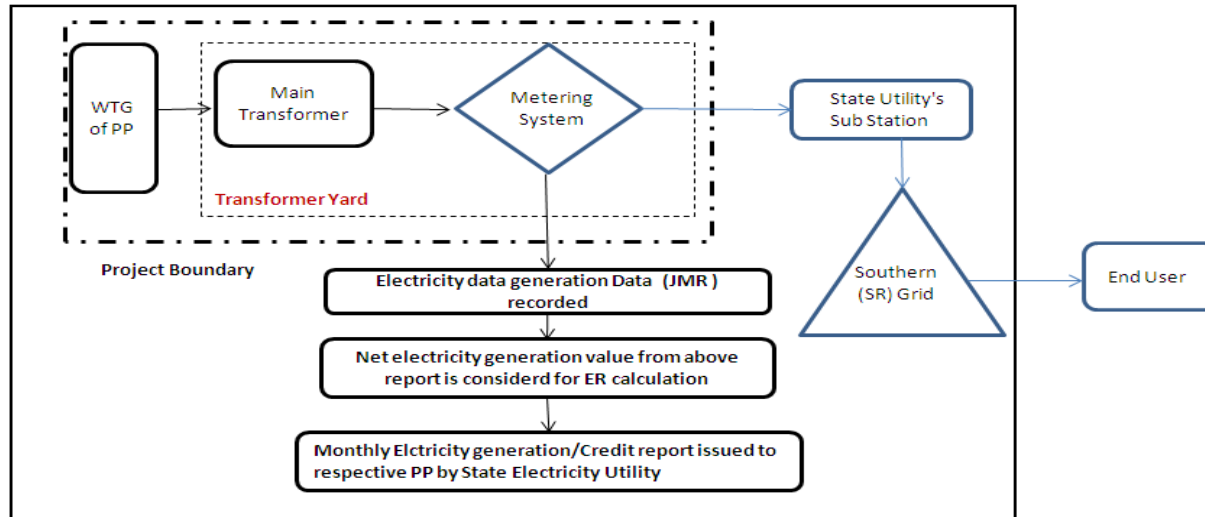
Monitoring of electricity generation was carried out continuously with trivector electronic meter. This helps to avoid manual data handling error, material misstatement and gives accurate measurement. . The calibration of monitoring equipments needed to be done as per the regulation of state utility. All monitoring parameters was recorded and verified by the responsible authorities of project participants. For metering & monitoring of the electricity generation from Wind Turbine Generator, the specific method applied was as per the Power Purchase Agreement as outlined below.

- The recording of the electricity exported to the state utility grid is done jointly at the incoming feeder of the state utility.
- The joint meter readings is carried out once in a month in presence of both parties (the developer's representative and officials of the state electricity utility). Meter reading of exported power is signed by both parties. This forms the basis of invoicing.
- Using the signed joint measurement/meter reading, each respective state electricity utility entity, issues electricity generation/credit report to corresponding PP. the credit report shows the amount of electricity exported to the grid and this value in this report is used for calculations emission reductions.

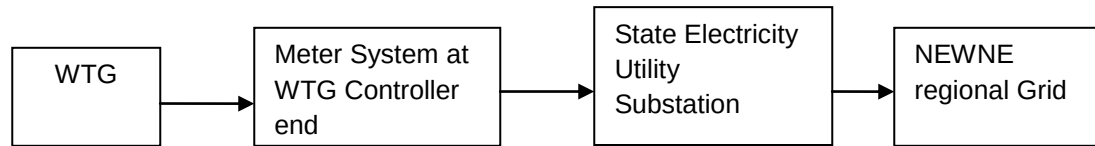
II) Schematic diagram of monitoring system for state of Maharashtra, Rajasthan and Karnataka as shown below:



III) Schematic diagram of monitoring system state of Gujarat and Tamil Nadu as shown below:



IV) The Metering system details of project activity for Gujarat state is illustrate in below figure:



The project promoters signed operation and maintenance agreements with the O & M contractor of the wind turbines. The performance of the turbines, safety in operation and scheduled /breakdown maintenances is the responsibility of O & M contractor and are organized and monitored by them, hence the authority and responsibility of project management on site lies with the O & M contractor who maintains all the data/ records for the project monitoring.

(a) The electricity apportioning procedure followed by state electricity utility in Maharashtra, Rajasthan:

The apportioning procedure followed by state electricity utilities in the two states is explained below:

The gross generation of all 'X' WTGs is G_G (Adding all controllers)

$$G_G = G_1 + G_2 + G_3 + \dots + G_X \text{ (Controller reading)}$$

The G_1 value is electricity (kWh) from respective WTG controller reading.

Total gross export (G_{export}) of electricity to the grid by all WTGs connected to a single joint meter (main meter) measured at substation.

$$G_{\text{export}} = G_{1 \text{ export}} + G_{2 \text{ export}} + G_{3 \text{ export}} + \dots + G_{X \text{ export}}$$

The value of G_{export} is available from joint meter reading (Main meter) reported as per procedure mentioned in section 11.05 of PPA Maharashtra State & Section 4.2 (ii) of PPA Rajasthan state.

Total gross import (G_{import}) of electricity from grid by all WTGs connected to joint meter (main meter) measured at substation.

$$G_{\text{import}} = G_{1 \text{ import}} + G_{2 \text{ import}} + G_{3 \text{ import}} + \dots + G_{X \text{ import}}$$

Hence, the WTG wise electricity generation ($G_{1 \text{ export}}$) breakup is derived as follows-

$$(G_{1 \text{ export}}) = (G_{\text{export}} \times G_1) / G_G$$

Similarly, the WTG wise electricity import ($G_{1 \text{ import}}$) breakup is derived as follows-

$$(G_{1 \text{ import}}) = (G_{\text{import}} \times G_1) / G_G$$

Having derived the electricity exported in to the grid ($G_{1\text{export}}$) and electricity imported from the grid ($G_{1\text{import}}$) for each WTG, the net electricity export ($G_{1\text{ net export}}$) is derived as follows:

$$(G_{1\text{ net export}}) = G_{1\text{export}} - G_{1\text{import}}$$

The sum total of the net electricity export ($G_{1\text{ export}} + G_{2\text{ export}} + G_{3\text{ export}} + \dots G_{X\text{ export}}$) value is reported/recorded in the monthly credit report/ generation report form which is used for billing electricity utility. This is the value which is referred as Electricity generated by the project activity and used for calculating emission reductions for the project.

The electricity apportioning procedure followed by State Electricity utility in State of Gujarat

The system consists of a state- of- the- art controlling and monitoring and well trained staff personnel of O & M contractor. O & M staff is always present on the site to monitor various parameters of power generation and deal with any problems related to generation, transmission or maintenance.

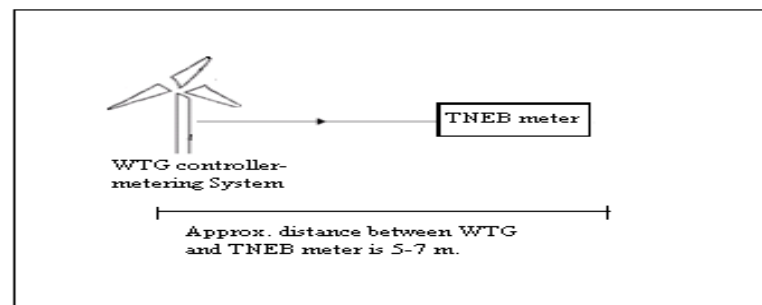
The project activity essentially involves generation of electricity utilizing wind energy. The WTG converts wind energy into electrical energy and does not utilize any other input fuel for electricity generation. The evacuation facility is essentially maintained by the state power utility. The monitoring of the generated electricity would be carried out in two fold.

- a. Electricity generation measured continuously by main meter located adjacent to the WTG in the switchyard and recorded monthly by state utility in presence of representative of client
- b. There is transmission loss between the individual WTG and substation. This loss is proportionally divided among the WTGs connected to the meter on the basis of the prorata reading taken at the individual WTG meter. The final share certificate issued to the project proponent is based on the electricity generated minus losses. This is issued by state utility.
- c. The billing will be on monthly basis project proponent raise invoice and submit to GUVNL for payment based on Joint meter reading (certificate of share of electricity) certified by state utility at the end of each month for the energy supplied.

The electricity apportioning procedure followed by State Electricity utility in State of Tamil Nadu:

The monitoring system consists of monitoring of two parameters:-

- Reading of electricity import & export at the WTG controller.
- Reading of electricity imports & export at the metering point of TNEB., located approximately 5 -7 m. from the WTG. Each WTG has its individual EB meter, installed by the State utility.



Hence there is no need to apportioning of electricity generation in case of Tamil Nadu.

The import & export figure at WTG controller will be recorded in the logbooks of the O & M contractor on a daily basis. This data will be preserved in paper or electronic form. The summary of the generation will be submitted by them to the PP on a daily & monthly basis.

The TNEB meter will be the main source for monitoring net export to the grid. Monthly reading from the TNEB meter will be recorded by the engineers of the state utility in presence of the O & M contractor who represents PP. Subsequently the statement will be prepared.

Hence, $EG_{(Net\ export\ by\ project\ activity)} = EG_{JMR,export} - EG_{JMR,import}$, at TNEB (HTSC) metering point.

The electricity apportioning procedure followed by State Electricity utility in State of Karnataka:

There is no apportioning of electricity generation in case of Karnataka.

Each WTG is equipped with display control panels. All the electricity exported from the WTGs is recorded from the main and check meter installed at metering point near the WTGs. The electricity generated from customers WTG is injected in to Bulk meter at site (maintain by site developer/ contractor) through main and check meter of metering point. Monthly generation of individual metering points are measured with main and check meter. The electricity is then supplied to substation and subsequently to grid

(b) Procedures for handling internal auditing and non-conformities.

An internal audit of the project activity has already been done on a half yearly basis by a special audit team. The audit team has comprised competitive persons. The team was already audited the project for the following aspects among other things:

- Are the monitoring of VCS parameters done in line with the VCS PD Is the documentation of monitored VCS parameters done properly

- Are equipments calibrated and maintained as scheduled
- Is the quantity of VERs generated in line with that projected in the VCS PD, if not, what are the reasons for deviation?
- Are necessary corrective actions being taken to address deviations?
- Check the authenticity of data monitored and recorded by random cross-checking with other sources.

The audit team would submit their observations to Head- Wind Power Projects for his review and necessary action.

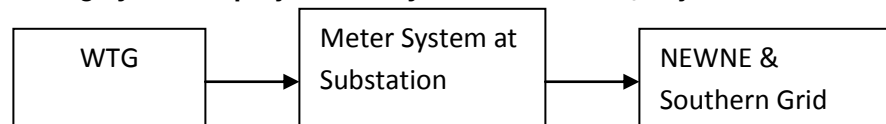
(c) Emergency preparedness procedures:

Each WTG has emergency preparedness procedure in place as per standard utility practices to avoid damage to generating facility, public & material safety, and state utility property. This is a requirement in the PPA (section 5.02 [b] of PPA (Maharashtra), Section 12 of PPA (Tamil Nadu) ,Section 4(viii) of PPA (Rajasthan), Section 7.1 of PPA (Gujarat) and section 7 of PPA (Karnataka). In case of emergency for metering system (Main meter) fails, the corresponding check meter reading is considered for electricity measurement. However, no such event of main meter failure occurred during the monitoring period.

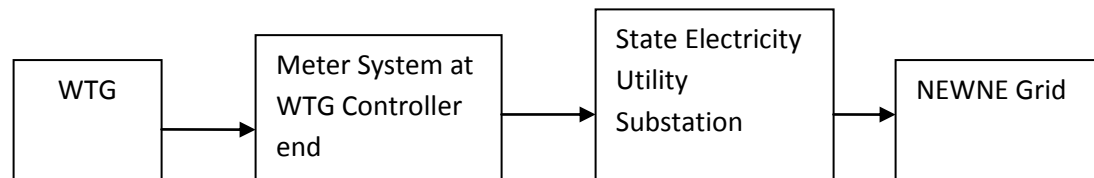
(d) Metering System:

The metering system for the project activity in all the five states can categorize as follows:

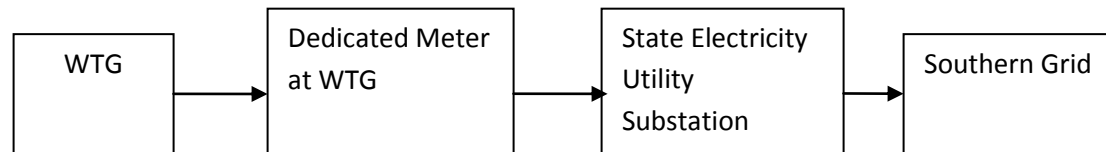
The Metering system of project activity for Maharashtra, Rajasthan and Karnataka State are illustrated in below figure.



The Metering system of project activity for the state of Gujarat is illustrated in below figure.



The Metering system of project activity for state of Tamil Nadu is illustrated in below figure.



(e) Monitoring Roles and Responsibility:

Roles	Responsibilities
PP (Director)	Review the overall performance of project & give directions for improvements.
PP (Project Manager)	Review the performance of project. preparing & submitting the annual reports, supporting documents for validation & verification of VERs
EPC contractor – Site In charge	Judge the performance of project through reports from clerks & plant operators on site. Visits to plant site & instruct to plant operators for improvement in performance. Compile data & reports to available for audit, review the performance of the project
EPC contractor - Clerks	Day to day monitoring, record, report & archive data as received contains overall conditions on wind farm.
EPC contractor - Plant Operators (O & M Staff)	Daily monitoring, checking routine Operation & Maintenance activities, reporting for any major O &M and Preventive Maintenance.
State Electricity Authority	Credit report Generation Calibration of Energy Meters
MITCON Consultancy & Engineering services Ltd (Project Consultant)	Central GHG data management Work as central coordinator for DOE and PP Central role as consultant to every aspect of project

Participant has signed an operation and maintenance agreement with the supplier of the wind turbines. The performance of the turbines, safety in operation and scheduled /breakdown maintenances is responsibility of EPC contractor and is organized and monitored by them. So the authority and responsibility of project management lies with the EPC contractor are as follows.

Project Executer and Controller (EPC Contractor):

- Overall functioning of the project activity and co-ordination between supplier and the management of project participant.
- Coordinating with PP/Consultant/Auditors during their site visit for validation/annual verification.
- Requesting/coordinating State Utility for annual calibration behalf of PP

Operation and Maintenance (EPC Contractor):

- Daily monitoring, checking routine Operation & Maintenance activities, reporting for any major O &M and Preventive Maintenance.
- The O&M Team of WTG supplier is responsible for Maintain and Operate the WTG

Site Main Controller (EPC Contractor):

- Site Engineer of EPC Contractor is involved in monitoring the daily/monthly generation recording of controller data, archive of data.
- Monthly JMR (joint meter reading) reading taken by state utility & Site engineer of EPC Contractor

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

The Baseline Emission for the project activity was calculated as follows:

$$\begin{array}{lcl} \text{Baseline Emissions}_{(\text{project})} & = & \text{Grid Emission Factor} * \text{Power Generated from the Project} \\ (\text{tons of CO}_2) & & (\text{tons of CO}_2/\text{MWh}) \quad (\text{MWh/year}) \end{array}$$

$$BE_y = EG_y * EF_{\text{grid, CM, y}}$$

Ex-ante Grid (Baseline) Emission Factor:

The baseline emission factor EF_y is calculated as a combine margin (CM) consisting of the combination of operating margin (OM) and build margin (BM) factors.

A calculation of the combined margin is based on data from an official source and it is publically available. As per the applicable methodology, the Combined Margin factor (in $\text{tCO}_2 \text{ e/MWh}$) of current generation mix of NEWNE and Southern Regional grids of India were use for the calculation of baseline. The project has used weights of 0.75 for OM and 0.25 for BM as shown below:

$EF_{\text{grid, CM, y}}$ is determined as follows:

The weighted average of the Operating Margin emission factor ($EF_{\text{grid, OM, y}}$) and the Build Margin emission factor ($EF_{\text{grid, BM, y}}$):

$$EF_{\text{grid, CM, y}} = EF_{\text{grid, OM, y}} * W_{\text{OM}} + EF_{\text{grid, BM, y}} * W_{\text{BM}}$$

For wind and solar projects, the default weights are as follows: $W_{\text{OM}} = 0.75$ and $W_{\text{BM}} = 0.25$

For NEWNE Regional Grid ($EF_{\text{grid, CM, y}}$):

$$\begin{aligned} EF_{\text{grid, CM, y}} &= EF_{\text{grid, OM, y}} \times 0.75 + EF_{\text{grid, BM, y}} \times 0.25 \\ &= 1.009 \times 0.75 + 0.5977 \times 0.25 \end{aligned}$$

$$EF_{\text{grid, CM, y}} = 0.906 \text{ t CO}_2/\text{MWh}$$

For Southern Regional Grid ($EF_{\text{grid, CM, y}}$):

$$\begin{aligned} EF_{\text{grid, CM, y}} &= EF_{\text{grid, OM, y}} \times 0.75 + EF_{\text{grid, BM, y}} \times 0.25 \\ &= 0.9985 \times 0.75 + 0.7133 \times 0.25 \\ &= 0.927 \text{ t CO}_2/\text{MWh} \end{aligned}$$

$$EF_{\text{grid, CM, y}} = 0.927 \text{ tCO}_2/\text{MWh}$$

The project proponent wishes to use the $EF_{\text{grid, CM, y}}$ calculated as Ex-ante, and has fixed the same for the entire crediting period.

The relevant grid emission factor as calculated by the CEA Database Version 4 and made available is shown in the table below;

Regional Grid	Baseline emission factor ($EF_{\text{grid, CM, y}}$)
NEWNE Regional Grid	0.906 tCO ₂ /MWh
Southern Regional Grid	0.927 tCO ₂ /MWh

The Baseline Emission for the project activity was calculated as follows:

$$\begin{array}{lll} \text{Baseline Emissions}_{(\text{project})} & = & \text{Grid Emission Factor} \quad * \quad \text{Power Generated from the} \\ \text{(tons of CO}_2\text{)} & & \text{Project} \\ & & \text{(MWh/year)} \end{array}$$

$$BE_y = EG_y * EF_y$$

For Maharashtra, Gujarat, and Rajasthan (NEWNE grid) State (01/07/2010 to 31/10/2011 vintage)

$$\begin{aligned} BE_y &= 119,974 * 0.906 \\ BE_y &= \mathbf{108,696 \text{ t CO}_2\text{e}} \end{aligned}$$

For Karnataka and Tamil Nadu State (01/07/2010 to 31/10/2011 vintage)

$$\begin{aligned} BE_y &= 55,403 * 0.927 \\ BE_y &= \mathbf{51,359 \text{ t CO}_2\text{e}} \end{aligned}$$

Total baseline emission for the project activity (01/07/2010 to 31/10/2011 vintage) is as follows:

$$BE_y = 160,055 \text{ t CO}_2\text{e}$$

Note: As Credit report & Invoice are not available for Unique Identification No -1445, 2159 and 2163 of PP Jsons Foundary Private Limited for Tamil Nadu site. Hence, we consider the value of export & import Zero for calculation of baseline emission for the project.

4.2 Project Emissions

As wind power projects fall under clean energy sources for electricity generation, the emission from the project is taken as zero.

$$PE_y = 0$$

4.3 Leakage

Leakage estimation is also not required.

$$LE_y = 0$$

4.4 Summary of GHG Emission Reductions and Removals

Emission Reduction = Baseline Emission – Project Emission – Leakage

The emission reduction in this monitoring period briefly illustrated in following table:

Monitoring Period	Total Baseline Emissions (tCO ₂ e)	Total Project Emission	Total Leakage (tCO ₂ e)	Total Emission Reduction (tCO ₂ e)
01/07/2010 to 31/12/2010	57,338	0	0	57,338
01/01/2011 to 31/10/2011	102,717	0	0	102,717

Comparison of actual emission reductions with estimates in the VCS PD

Item	Values applied in ex-ante calculation of the registered VCS-PD	Actual values reached during the monitoring period
Emission reductions (tCO ₂ e)	(130,195*488) / 365 = 174,069	160,055

Remarks on difference from estimated value in the VCS PD

There is no any increase in the actual Emission Reductions achieved during the current monitoring period in comparison with ex-ante emission reduction calculation of the registered VCS PD.

|

**Annexure-I
CEA Database Version 4.0**

CENTRAL ELECTRICITY AUTHORITY: CO2 BASELINE DATABASE

VERSION 4.0
DATE Sep-08
BASELINE METHODOLOGY ACM0002 / Ver 07 and "Tool to Calculate the Emission Factor for an Electricity System", Version 1.1

Using approach (c) on p. 4 of "Tool to Calculate the Emission Factor for an Electricity System", Ver.1

EMISSION FACTORS

Weighted Average Emission Rate (tCO2/MWh) (excl. Imports)

	2005-06	2006-07	2007-08
NEWNE	0.84	0.83	0.82
South	0.73	0.72	0.72
India	0.82	0.80	0.80

Simple Operating Margin (tCO2/MWh) (excl. Imports)

	2005-06	2006-07	2007-08
NEWNE	1.02	1.02	1.01
South	1.01	1.00	0.99
India	1.02	1.01	1.01

Build Margin (tCO2/MWh) (excl. Imports)

	2005-06	2006-07	2007-08
NEWNE	0.67	0.63	0.60
South	0.71	0.70	0.71
India	0.68	0.65	0.63

Combined Margin (tCO2/MWh) (excl. Imports)

	2005-06	2006-07	2007-08
NEWNE	0.85	0.82	0.80
South	0.86	0.85	0.85
India	0.85	0.83	0.82

Weighted Average Emission Rate (tCO2/MWh) (incl. Imports)

	2005-06	2006-07	2007-08
NEWNE	0.83856	0.82435	0.81210 *
South	0.73413	0.71627	0.72228 *
India	0.81261	0.79717	0.78976

Simple Operating Margin (tCO2/MWh) (incl. Imports)

	2005-06	2006-07	2007-08
NEWNE	1.01949	1.00835	0.99917 *
South	1.00567	0.99912	0.99062 *
India	1.01657	1.00635	0.99735

Build Margin (tCO2/MWh) (not adjusted for imports)

	2005-06	2006-07	2007-08
NEWNE	0.67253	0.63131	0.59771
South	0.70665	0.70128	0.71332
India	0.68083	0.64849	0.62533

Combined Margin in tCO2/MWh (incl. Imports)

	2005-06	2006-07	2007-08
NEWNE	0.85	0.82	0.80
South	0.86	0.85	0.85
India	0.85	0.83	0.81

Calculation of the Combined Margin Grid Emission factor for the respective Grid based on the CEA database Version 4.0

The values of OM have been taken from CEA Database version-0.4 which is calculated by approved methodology ACM0002. The calculation of OM has been done ex ante based on the most recent 3 years data available at the time of VCS PD submission

Calculation of Baseline Emission Factor for WIND Power Project: Combined margin

Parameter	Unit	NEWNE Value	Southern Value	Reference
Simple operating margin(2005-06)	tCO ₂ /MWh	1.0195	1.0057	CEA database version 4
Simple operating margin(2006-07)	tCO ₂ /MWh	1.0083	0.9991	
Simple operating margin(2007-08)	tCO ₂ /MWh	0.9992	0.9906	
Average Operating Margin (OM)	tCO ₂ /MWh	1.0090	0.99847	
Build Margin (BM) (2007-08)	tCO ₂ /MWh	0.5977	0.71	
Weight of OM (W _{OM})		0.75	0.75	
Weight of BM (W _{BM})		0.25	0.25	
Combined Margin (BEF)	tCO ₂ /MWh	0.906	0.927	

EF_{grid OM,y} = Average of three year i.e. for year 2005-06, 2006- 07 & 2007-08

EF_{grid, BM, y} = Build Margin for year 2007-08

The grid emission factor is calculated as the weighted average of the operating margin emission factor (EF_{OM, simple, y}) and the build margin emission factor (EF_{BM, y}), where the weights W_{OM} and W_{BM} for wind projects, by default, are W_{OM} = 0.75 & W_{BM} = 0.25).

For NEWNE Grid:

$$\begin{aligned}
 \text{EF}_{\text{grid, CM, y}} &= 0.75 \times \text{EF}_{\text{OM,y}} + 0.25 \times \text{EF}_{\text{BM,y}} \\
 &= 0.75 \times 1.00 + 0.25 \times 0.5977 \\
 &= 0.906 \text{ tCO}_2/\text{MWh}
 \end{aligned}$$

For Southern grid:

$$\begin{aligned}
 \text{EF}_{\text{grid, CM, y}} &= 0.75 \times \text{EF}_{\text{OM,y}} + 0.25 \times \text{EF}_{\text{BM,y}} \\
 &= 0.75 \times 0.99 + 0.25 \times 0.71 \\
 &= 0.927 \text{ tCO}_2/\text{MWh}
 \end{aligned}$$

For detailed calculation of Baseline Emission factor of respective regional grid i.e. NEWNE and Southern regional grid please refer section E.1 of this document.

Appendix I

Monitoring of GHG reduction system information flow:

