

PERFORMANCE EVALUATION REPORT Results Framework Document (RFD)

for

CENTRE FOR WIND ENERGY TECHNOLOGY

(An Autonomous R&D Institution under the Ministry of New and Renewable Energy, Government of India)

VELACHERY – TAMBARAM HIGH ROAD, PALLIKARANAI, CHENNAI – 600 100

(2013 – 2014)



C-WET - Results Framework Document

Performance Evaluation at the end of the year (2013 – 2014)

Objectives	Weight	Action	Success Indicator	Unit	Weight	Target Criteria Value					Achievement	Raw Score	Weighted Raw Score
						Excellent	Very Good	Good	Fair	Poor			
			Committed			100%	90%	80%	70%	60%			
1. To promote and carry-out research and development programmes in coordination with other institutions	40	A. NO. OF ONGOING PROJECTS (R&D)											
		(1) "Study and control of weak grid connected matrix converter based DFIG system" – SSN college of Engineering.	1										
		<ul style="list-style-type: none"> Simulation of VHDL & DSP coding, hardware implementation of space vector coding. Simulation studies of unbalance, improved ride through techniques. 	1										
		(2) "A Novel hybrid system for supplying isolated loads with FPGA based energy management scheme" – NIT, Tiruchirappalli.	1	Nos	15	10	9	8	7	6	9	90%	13.5
		<ul style="list-style-type: none"> Algorithm for FPGA based inverter control; Experimental results of WRIG using laboratory set-up; Design values and documents; and Status of the procurement of the components / equipments as per the proposal. 											



PERFORMANCE EVALUATION REPORT – RFD (C-WET) (2013-14)

Objectives	Weight	Action	Success indicator	Unit	Weight	Target Criteria Value					Achievement	Raw Score	Weighted Raw Score
			Committed			Excellent	Very Good	Good	Fair	Poor			
						100%	90%	80%	70%	60%			
		<p>(3) Health/ Condition Monitoring at Experimental/ R&D Wind Farm at Kayathar – phase-I on 2MW WT.</p> <ul style="list-style-type: none">Hardware & software configuration, Instrumentation, fine tuning. Measurement storage at CWET. Signal processing, analysis & fault prediction algorithm development.Early failure determination, balance life estimation of components in the sub-system.Consolidating the interim reports into a final report & conduct workshop for the benefit of the stakeholders. <p>(4) Everybody's Battery Charger</p> <ul style="list-style-type: none">Performance evaluation of the savonius rotorField trial, necessary modification & standardisation of the rotor. <p>(5)Experimental characteristics of wind turbine blading over full 0-360 deg angle of attack.</p> <ul style="list-style-type: none">Intensive experimental programme. Deduction & analysis of 360deg data & comparison with CFD results. Preparation of final report. <p>(6)Supply, installation and commissioning of grid connected type gearless wind turbine (1 no.) and / or grid connected DFIG type wind turbine (1 no.) with capacity above >= 700kW inclusive of transportation, civil, electrical and other associated works</p>	1 <										

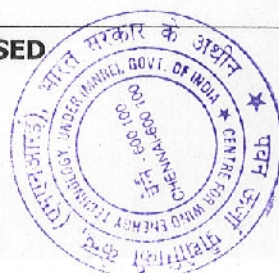


Objectives	Weight	Action	Success Indicator	Unit	Weight	Target Criteria Value					Achievement	Raw Score	Weighted Raw Score
			Committed			Excellent	Very Good	Good	Fair	Poor			
						100%	90%	80%	70%	60%			
		A. NO. OF PROJECTS COMPLETED (R&D)	1	Nos.							2	100%	2
		(1) Study on power quality issues in grid connected wind farms and identification of remedial measures – Tamilnadu Energy Development Agency (TEDA)			2	2	-	-	1	-			
		(2) "Power Evacuation Studies For Grid Integrated Wind Energy Conversion System" – Anna University, Chennai	1										
		B. NO. OF PROJECTS COMPLETED (Wind Resource) (capacity)	50	MW	8	50	45	40	35	30	50	100%	8
		A. NO. OF NEW PROJECTS INITIATED (R&D)	1	Nos.	1	1	-	-	-	-	1	100%	1
		B. NO. OF NEW PROJECTS INITIATED (Wind Resource) (capacity)	500	MW	4	500	450	400	350	300	4	500	4
		NO. OF RESEARCH PAPERS PUBLISHED	2	Nos.							2		
					40							38.5	
2. To undertake and offer various value added services to customers / stake holders in the area of Wind Resource, Testing and Certification.	35	A. NO. OF ONGOING CONSULTANCY "PAID PROJECTS" (Testing & Certification)											
		(i) Large Wind Turbine (capacity >225 kW)	3										
		(ii) Small Wind Energy Systems (capacity 1 to 10kW)											
		(1) Testing of 1kW turbine	1	Nos.	15	10	9	8	7	6	10	100%	15
		(2) Testing of 3.5 kW turbine	1										
		(3) Testing of 5.4 kW turbine	1										
		(4) Testing 3.2kW turbine	2										
		(5) Testing of 4.2 kW turbine	1										
		(6) Testing of 5.1 kW turbine	1										



Objectives	Weight	Action	Success Indicator	Unit	Weight	Target Criteria Value					Achievement	Raw Score	Weighted Raw Score
			Committed			Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%			
		B. NO. OF ONGOING CONSULTANCY "PAID PROJECTS" (Wind Resource) (capacity)	237	MW	15	237	213	190	166	142	290*	100%	15
		A. NO. OF COMPLETED CONSULTANCY "PAID PROJECTS" (Testing & Certification)											
		(i) Large Wind Turbine (capacity >225 kW)	3										
		(ii) Small Wind Energy Systems (capacity 1 to 10kW)		Nos.	2	8	7	6	5	4	14	100%	2
		(1) Testing of 5.4 kW turbine	1										
		(2) Testing 3.2 kW turbine	2										
		(3) Testing of 4.2 kW turbine	1										
		(4) Testing of 5.1 kW turbine	1										
		B. NO. OF COMPLETED CONSULTANCY "PAID PROJECTS" (Wind Resource)	152	MW	3	152	137	122	106	91	668*	100%	3
					35								35
3. To undertake/ facilitate Human Resource development programmes for the personnel needed in the Wind Energy Sector	20	Conducting International Training Courses in a year	2	Nos	8	2	-	-	1	-	2	100%	8
		Conducting National Training Courses in a year	2		8	2	-	-	1	-	2	100%	8
		Issues of quarterly C-WET Newsletter 'PAVAN'	4		4	4	-	3	2	-	4	100%	4
					20								20

*INDICATIVE POTENTIAL ASSESSED



Objectives	Weight	Action	Success Indicator	Unit	Weight	Target Criteria Value					Achievement	Raw Score	Weighted Raw Score
						Excellent	Very Good	Good	Fair	Poor			
			Committed			100%	90%	80%	70%	60%			
4. Efficient functioning of RFD systems	5	Timely submission of Draft for Approval	On-time submission	Date	02	05.03.2013	08.03.2013	09.03.2013	10.03.2013	11.03.2013	-	-	-
		Timely submission of Results	On-time submission	Date	01	02.05.2014	03.05.2014	04.05.2014	05.05.2014	06.05.2014	1	100%	1
		Finalize a Strategic Plan	Finalize the strategic plan for next 5 years	Date	02	10.12.2013	15.12.2013	20.12.2013	24.12.2013	31.12.2013	2	100%	2
					05								3
COMPOSITE SCORE													96.5

Date : 27.05.2014




Dr.S. GOMATHINAYAGAM
EXECUTIVE DIRECTOR, C-WET.