



नीवे NIWE

(ISO 9001:2008)

As per

18/5

PERFORMANCE EVALUATION REPORT Results Framework Document (RFD)

for

21/5/15
DG NIWE

NATIONAL INSTITUTE OF WIND ENERGY

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

(2014 – 2015)

353/2015



Director (A&F) NIWE	
संख्या No.	: 892
आवक तिथि In Date	: 19/5/15
जावक तिथि Out Date	: 19/5/15

DG, NIWE	
संख्या No.	: 353
आवक तिथि In Date	:
जावक तिथि Out Date	: 22/5/15

22/5
22/5

NIWE - Results Framework Document

Performance Evaluation at the end of the year (2014 – 2015)

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%			
1. To promote and carry-out research and development programmes in coordination with other institutions	40	A. No. of ongoing projects (R&D)			15								
		1. Study and control of weak grid connected matrix converter based DFIG system-SSN College of Engineering	1	No.		2	-	-	1	-	2	100%	15
		<ul style="list-style-type: none"> Additional hardware implementation of common model elimination techniques in matrix converter 											
		2. A Novel hybrid system for supplying isolated loads with FPGA based energy management scheme- NIT, Tiruchirappally	1	No.									
		<ul style="list-style-type: none"> Algorithm for FPGA based D-Statcom control; Experimental results of D-Statcom using laboratory set up; Design documents; identification and interaction of wind turbine manufacturers 											



PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%			
		B. NO. OF ONGOING PROJECTS (Wind Resource) 1. Offshore WRA at Dhanushkodi 2. Internal R&D Project - WRA - Ennore port 3. Wind Shear Study using 120m mast 4. Preparation of Micro level Wind Atlas 5. Estimation and Validation of Wind Power Potential at 100m level of 7 States in India	500 100 250 1 2000	MW MW MW No. MW	8	2850	2565	2280	1995	1710	2850	100%	8
		C. NO. OF ONGOING PROJECTS (SRRA) Solar Radiation Resource Assessment of India. <ul style="list-style-type: none"> To assess the ground data of solar radiation. To establish initially 111 Automatic Solar Radiations Stations covering potential areas in the country. To establish 4 advanced measurement stations. To collect automatically at a Central Receiving Station to be established at C-WET, Chennai through GPRS mode. 	1	No.	2	1	-	-	-	-	2	100%	2



PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%			
		<ul style="list-style-type: none"> To establish a Calibration Laboratory for solar radiation measuring equipments at C-WET, Chennai. To prepare Solar Atlas of India. 											
		<p>A. No. of projects completed (R&D)</p> <p>1. Health/ Condition Monitoring at Experimental/ R&D wind farm at Kayathar - Phase-I on 2MW WT.</p> <p>2. Experimental Characteristics of Wind Turbine blading over full 0-360 deg angle of attack.</p> <p>3. Supply, installation and commissioning of grid connected type gearless wind turbine (1no.) and /or grid connected DFIG type wind turbine (1no.) with capacity above >=700kW inclusive of transportation, civil, electrical and other associated work.</p>	1	No.	2	3	-	2	-	1	3	100%	2
		<p>B. No. of projects completed (Wind Resource)</p> <p>1. Wind Turbine Wake Modeling (CFD & Linear) and validation with in-situ measurements.</p>	2	MW	8	52	47	42	36	31	52	100%	8
			50	MW									



PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%			
		2. Development of Wind Forecasting Model with Special reference to Complex terrains											
		A. No. of new projects initiated (R&D)	1	No.	1	1	-	-	-	-	1		1
		B. No. of new projects initiated (Wind Resource)			4	900	810	720	630	540	900	100%	4
		1. Design and Development of a photonic system for real time remote monitoring of wind and other air parameters	1	No.									
		2. Repowering of existing wind farms in the State of Tamilnadu	500	MW									
		3. Collecting data from all the running Wind Monitoring Stations at 80m and 120m level	400	MW									
		No. of research papers published	1								1	100%	-
					40								40
2. To undertake and offer various value added services to customers / stake holders in the area	35	A. No. of ongoing paid consultancy projects			15	12	11	10	8	7	12	100%	15
		I. Large Wind Turbine (capacity ≥ 225 kW)											
		(1) Power Quality measurements	1	No.									
		(2) Testing of Inox 2000 kW	1	No.									



PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%			
of Wind Resource, Testing and Certification.		(3) Testing of Garuda 1700 kW	1	No.									
		(4) Certification / RLMM of WT	1	No.									
		II. Small wind energy systems (capacity 1 to 10 kW)											
		(1) Testing of 1 kW Wind turbine	2	Nos.									
		(2) Testing of 10 kW Wind turbine	1	No.									
		(3) Testing of 650 W Wind turbine	1	No.									
		(4) Testing of 3.2 kW Wind turbine	1	No.									
	(5) Testing of 5 kW Wind turbine	1	No.										
		B. NEW WIND RESOURCE POTENTIAL ASSESSMENT (Ongoing)			15	3530	3177	2824	2471	2118	3530	100%	15
		1. Verification Procedure of Wind Monitoring Stations	2000	MW									
		2. Preparing WPD Map	150	MW									
		3. Wind Monitoring Study	200	MW									
		4. WRA in Uncovered/New Areas	550	MW									
		5. Technical Due diligence for proposed Wind Farms	600	MW									
		6. Repowering of Existing Wind Farm	30	MW									

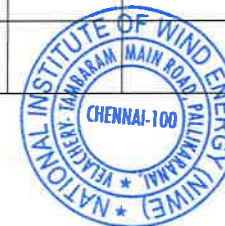


PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%			
		C. NO. OF ONGOING CONSULTANCY "PAID PROJECTS" (SRRA) 1. Installation of four Solar radiation Monitoring sites for MEDA (Maharashtra Energy Development Agency), Pune <ul style="list-style-type: none"> To carry out ground data collection of solar radiation and weather parameters Networking of SRRA stations for transmitting the data from sites to the servers located at MEDA, Pune and at C-WET , Chennai. To assess and analyze the data of solar radiation levels and to furnish /declare deliverables. 	1	No.	1	1	-	-	-	-	1	100%	1
		A. No. of Completed paid consultancy projects I. Large Wind Turbine (capacity ≥ 225 kW)			2	8	7	6	5	4	8	100%	2
		(1) Power Quality measurements	1	No.									
		(2) Testing of Inox 2000 kW	1	No.									
		(3) Field Test of Garuda 700 kW	1	No.									
		(4) Certification / RLMM of WT	1	No.									

PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%					
		II. Small wind energy systems (capacity 1 to 10 kW)											
		(1) Testing of 1 kW Wind turbine	1	No.									
		(2) Testing of 5 kW Wind turbine	1	No.									
		B. NEW WIND RESOURCE POTENTIAL ASSESSMENT (Completed Projects)			2	2790	2511	2232	1953	1674	3957	100%	2
		1. Verification Procedure of Wind Monitoring Stations	2000	MW									
		2. Preparing WPD Map	150	MW									
		3. Technical Due diligence for proposed Wind Farms	600	MW									
		4. Repowering of Existing wind farm	40	MW									
					35								35
3. To undertake/facilitate Human Resource development programmes for the personnel needed in the Wind Energy Sector	20	Conducting International Training Courses	2	Nos	8	2	-	-	1	-	4	100%	8
		Conducting National Training Courses	2		7	2	-	-	1	-	2	100%	7
		Conducted a Special training course on "Wind Resource Assessment and Wind Energy Technology for State Nodal Agencies (SNAs)"	1		1	1	-	-	-	-	1	100%	1
		Issues of quarterly C-WET Newsletter 'PAVAN'	4		4	4	-	3	2	-	4	100%	4
					20								



PERFORMANCE EVALUATION REPORT OF NIWE – RFD (2014-2015)

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%			
4. Efficient functioning of RFD systems	5	Timely submission of Draft for Approval	On-time submission	Date	2	05.03.2014	08.03.2014	09.03.2014	10.03.2014	11.03.2014	2		2
		Timely submission of Results	On-time submission	Date	1	02.05.2015	03.05.2015	04.05.2015	05.05.2015	06.05.2015	1		1
		Finalize a Strategic Plan	Finalize the strategic plan for next 5 years	Date	2	10.12.2014	15.12.2014	20.12.2014	24.12.2014	31.12.2014	2		2
													5
COMPOSITE SCORE												100	

Dr.S. GOMATHINAYAGAM
DIRECTOR GENERAL, NIWE.

Date : 19.05.2015

