

MEMORANDUM OF UNDERSTANDING

BETWEEN

**MINISTRY OF NEW AND RENEWABLE
ENERGY (MNRE), NEW DELHI**

AND

**NATIONAL INSTITUTE OF WIND ENERGY
(NIWE), CHENNAI**

FOR THE YEAR 2020-21

NATIONAL INSTITUTE OF WIND ENERGY
CHENNAI

Memorandum of Understanding - 2020-21

1. PART-I OBJECTIVES

NIWE is an autonomous R & D institution under the Ministry established to serve as the technical focal point for wind power development in India, for promoting and accelerating the pace of utilization of wind energy and support the growing wind power sector in the country. Other objectives of NIWE are:

- o to carry out activities such as wind/ solar resource assessment, preparing wind energy density maps, wind/ solar atlas, Indian standards & its certification on wind turbines, activities related to offshore wind energy, etc., in the area of wind/ renewable energy, as may be assigned by the Ministry from time to time;
- o to develop and strengthen the facilities and capabilities, evolve strategies, promote, conduct, co-ordinate and support research and development programs to achieve and maintain reliable and cost effective technology in wind power systems;
- o to undertake human resource development programs for the personnel working in the wind energy sector;
- o to promote commercial exploitation of know-how, know-why results and offer various consultancy services to the customers;
- o to promote the development and commercialization of other wind energy systems.

2. PART-II EXERCISE OF ENHANCED AUTONOMY AND DELEGATION OF FINANCIAL POWERS

As per Rule 51 of NIWEs Memorandum of Association (MOA), NIWE Recruitment Rules and Bye-Laws, the Director General has been delegated with full powers to incur expenditure on all NIWE activities up to the Budget Limit.

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3. PART-III MAIN ACTIVITES

Whereas the Institute recognizes that the process of developments has to relate continuously to significant and notable changes that are taking place in the Wind related industry and, rapidly exploring universe of knowledge in the area and for that purpose, the Institute main focus areas are as under:

- Wind Resource Assessment and Offshore development (WRA&O)
- Wind Turbine Testing (Both Large and Small)
- Standards and Certification (S&C)
- Information, Training and Customized Services (ITCS)
- Wind Energy & Hybrid System
- Research and Development (R & D)

4. PART- IV: ROLES OF MNRE AND NIWE

Ministry of New and Renewable Energy [MNRE] on its part shall endeavor to provide adequate funding as per the approval of the Governing Council of NIWE for all the approved activities, besides providing direction and guidance on the thrust areas for research in accordance with overall aim of the government.

In consideration of activities to be implemented, the Institute shall endeavor:

- To absorb the establishment related expenditure from its internal earnings that is over and above the sanctioned grant by the Ministry under this head;
- To levy User charges including overhead/institutional charges/management fee in respect of Consultancy/Sponsored Project, wherever the output or benefit of services are utilized by others are levied at appropriate rates as per amended GFR Rule No.47 and display the same in the website.
- To achieve self-sufficiency in the matter of meeting expenditure on account of Salary and Salary related expenditure for regular staff of NIWE.
- To seek approval of the Ministry for activities beyond DG's delegated powers including those relating to agreements with international parties.

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- Ministry shall provide requisite funds for carrying out the activities mentioned in the MoU and depending on the fund availability; the institute shall implement the projects.
- Ministry shall hold a quarterly review meeting with NIWE at MNRE to review Physical and Financial targets and NIWE will send achievements of the targets on monthly basis to the Ministry and will also be reviewed by GC, NIWE appropriately.
- The institute shall follow the policy level decision(s) of GC/ MNRE with regard to program implementation from time to time.

5. PART- V: SPECIFIC PARAMETERS AND TARGETS

The following are specific activities along with defined timelines which NIWE is expected to complete during 2020-21. The segregation of activities is done as under a) New Initiatives, b) On-going projects and c) Carried forward from the previous year.

TARGETS FOR THE YEAR 2020 - 21

Sl. No.	Unit	Targets	Deliverables	Weightage (%)	Timeline
I	New Initiatives				
1	WSOM	Pre-feasibility report preparation	Pre-feasibility report preparation for hybrid project for one site in Non-Windy State	5%	31.01.2021
2		WRA studies in Telangana (5 Nos.)	Preparation of Data Analysis report	5%	31.10.2020
3		WRA studies in Ladakh	Installation of 4 nos. of masts in Ladakh	4%	31.10.2020
4			Installation of 1 (one) no. of LIDAR / SODAR in Ladakh	4%	31.10.2020
5	T&R	Creation of National Test Centre for Offshore Wind Turbines	Purchase of Land at Dhanushkodi	3%	30.06.2020

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Sl. No.	Unit	Targets	Deliverables	Weightage (%)	Timeline
			Preparation of Road map/Project report on establishment of National Test Centre (NTC) for Offshore WTs.	2%	31.03.2021
6		Establishment of National Blade Test Facility	Eol for identifying Industrial Partner	2%	30.11.2020
			Preparation of Road Map for development and operation of the Blade test Centre/Facility.	3%	31.03.2021
7	C&IT	NABCB Accreditation	Obtaining accreditation as per ISO/IEC 17065:2012 standard requirements for Wind Turbine certification services of NIWE.	5%	31.05.2020
8		WTG Certification Projects	Two projects from the clients	5%	31.12.2020
9		Report on "Scaling Up Domestic Manufacturing of Wind Turbine Components – A Step towards Atmanirbhar"	a) Discussions with the major component suppliers viz., Gearbox and Yaw & Pitch Drives, Castings, Forgings, Bearings, Blade raw material, Blade and Tower to understand the challenges being faced and their expectations to scale up domestic manufacturing b) Consolidation of the challenges and expectations of the above mentioned	5%	30.09.2020

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Sl. No.	Unit	Targets	Deliverables	Weightage (%)	Timeline
			component suppliers c) Discussion with OEMs on the major findings Based on the above, preparation of report.		
10	SDT	International Training Courses	Two International Online Training Courses.	2%	31.03.2021
11		National Training Courses	10 numbers of Vayumitra Foundation Course on "Wind Energy Technology"	6%	31.12.2020
12	RDAF	Paper & Publications by the Scientists in conferences/ journals	Publication of 10 research papers in peer reviewed journals / international conferences	5%	31.03.2021
13		Preparation of wind power forecasting report	Wind power forecasting analysis report for 4 states	2%	31.03.2021
14		Development of Forecasting portal	Design and development of a Forecasting portal	2%	31.10.2020
15		Preparation of Reports	Report on repowering of wind turbines	2%	31.01.2021
16			Global technology status and tariff trends for wind energy (both onshore and offshore).	4%	28.02.2021
II On-Going Projects					
1		RDPAC Project: Integrated Wind and Solar Resource Assessment through mapping measurements	Launch of GIS based 120 Wind-Solar Hybrid potential map	4%	31.01.2021
			Launch of GIS based 120 Wind power potential map		28.02.2021
			Installation & commissioning of 100	4%	31.03.2021

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Sl. No.	Unit	Targets	Deliverables	Weightage (%)	Timeline
			m integrated wind – solar masts at all the sites for which NOCs are received by 31.12.2020		
2		RDPAC Project: “Met-Ocean Measurements (Wave, Tide, Current, Water level etc.) at Gulf of Khambhat and Gulf of Mannar for fostering the growth of Offshore wind in the country	Validation of 4 No's of LIDAR at NIWE's research Station as per the IEC 61400 12-1 in compliance with the Annexure L and preparation of the validation report.	4%	31.12.2020
			Fabrication & Installation of Offshore Structure Installation & Commissioning of 2 nos. of LiDAR on the offshore platform in Tamil Nadu / Gujarat	4%	31.03.2021
3	T&R	DST DTU (Denmark Technical University) Project – Hybridize (Three year research project starting in 2019-20)	Instrumentation of Wind Turbine and collection of Turbine Characteristic data for Yr.2020 Wind Season (DST project)	5%	31.03.2021
4		Lab Accreditation related-Establishment of Quality Assurance Comparison Measurements at 2 R&D WTs at WTRS, Kayathar	Measurements with Additional Instrumentation and validation.	5%	28.02.2021
			Data Analysis to validate the changes brought in the Latest Version of Power Performance & Load Measurements and preparation of report.	6%	

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Sl. No.	Unit	Targets	Deliverables	Weightage (%)	Timeline
III	Carried forward from the previous year				
1	WSOM	Validation of wind power forecasting (30 nos. of 100 m mast) (ongoing project)	Installation & Commissioning of 1 no. of 100 m wind monitoring stations in Gujarat.	2%	31.12.2020
			Total Weightage	100%	

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**Director General
National Institute of Wind Energy
(NIWE), Chennai**

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**Secretary
Ministry of New & Renewable Energy
(MNRE), New Delhi**

Place:

Date:

