Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	**PNT2022TMID46873**
Project Name	Predicting the energy output of wind turbine based on weather condition
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Gmail Registration through form
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User login into website	Login using credentials Forgot password/ change password for updating user credentials
FR-4	Displaying further information about the site	To know more about the site, user can click on the about button.
FR-5	Enter required parameters	Inputs like city name, area and more
FR-6	Validating all required fields	System checks whether all the required fields are filled and those values are correct
FR-7	Displays weather conditions of entered city	Climatic conditions of the entered city will be displayed to the user
FR-8	Displays prediction results	User can view the results predicted
FR-9	Download prediction results	Download as jpg/png, download as pdf
FR-10	Logout from the site	User can log out from the site using the option provided

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No	Non-Functional Requirement	Description
NFR-1	Usability	The responsive website satisfies the user needs and is easy to use.
NFR-2	Security	Login credentials will be protected from attacks and of single use only. If it doesn't match the

		existing one, it shows error message. Number of attempts to login to the site is limited
NFR-3	Reliability	Wind Energy is reliable because it is both unlimited and domestic
NFR-4	Performance	Accuracy is high due to combination of multiple ML models to predict the output .
NFR-5	Availability	This is a web based application so we can access in any device that have a web browser with good Internet facility.
NFR-6	Scalability	It can be extended further to provide API which can be used by third party organizations such as Industries, Power suppliers , Governmental ,etc