

**Project Design Phase-I**  
**Proposed Solution Template**

Date	19 September 2022
Team ID	PNT2022TMID45145
Project Name	Predicting the energy output of wind turbine based on weather condition
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Optimizing turbine positioning
2.	Idea / Solution description	utilizing innovative tools to accurately and efficiently simulate the wake of a wind turbine in a specific location
3.	Novelty / Uniqueness	detailed analysis of the flow can be conducted to analyze ways in which productivity can be increased
4.	Social Impact / Customer Satisfaction	This provides high output to the customer.
5.	Business Model (Revenue Model)	The idea of the weather prediction is easier and place wind mill after find weather condition is best way to construct.
6.	Scalability of the Solution	The cost of the prediction of weather is costless. Since government can provide weather details.

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Combatting unexpected mechanical failures.
2.	Idea / Solution description	the maintenance of wind turbines has always been focused on reacting to problems instead of preventing issues
3.	Novelty / Uniqueness	A Engineer is placed near the windmill farms to attend immediately any kind problems and prevent future problem before becoming big
4.	Social Impact / Customer Satisfaction	IT provides a safe and relaxed , satisfied customer as there is a engineer.
5.	Business Model (Revenue Model)	The idea of hiring an engineer and placing a one near a wind farm. It can solve many problems and able to save many problems
6.	Scalability of the Solution	The cost of one engineer outweighed the cost of damaged windmill. So using a engineer is much better.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Maximizing power output
2.	Idea / Solution description	wind farm owners face is monitoring the capacity factor of their turbines to maximize power output
3.	Novelty / Uniqueness	Weather condition is used to predict the energy output and this increase the output high
4.	Social Impact / Customer Satisfaction	The more the output is generated, the customer earns more money.
5.	Business Model (Revenue Model)	Less cost because only AI and weather prediction is used
6.	Scalability of the Solution	The cost of written code using weather report and AI is very less.