

Ideation Phase

Define the Problem Statements

Date	8 February 2026
Team ID	LTVIP2026TMIDS89922
Project Name	Weather-Based Prediction of Wind Turbine Energy Output
Maximum Marks	2 Marks

Customer Problem Statement:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	An energy company manager	forecast energy output from wind turbines	current predictions are inaccurate and reactive	wind energy depends on highly variable weather conditions	uncertain about energy distribution and pricing
PS-2	A wind farm operator	plan maintenance schedules efficiently	I cannot predict low-output periods accurately	turbine downtime impacts overall energy production	stressed about operational efficiency

Explanation:

By framing the “customer” as the energy company or operator, this project provides a practical solution: predicting wind turbine output to optimize operations, minimize downtime, and improve grid integration.