Project Design Phase-I
Proposed Solution Template

Team ID	**PNT2022TMID39504**
Project Name	**Predicting the Energy Output of Wind Turbine Based On Weather Condition**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	**It produces heat while the wind turbines rotate and we have to service once in a year for maintenance and to reduce the fault.**
2.	Idea / Solution description	**Fixing the alert device for the workers while working to fix the cooling down machines to the wind turbine blades.**
3.	Novelty / Uniqueness	**High penetration of wind power also makes a number of challenges in power system operations and planning, turbine maintenance scheduling and power grid integration mainly streaming from uncertain and intermittent nature of wind speed.**
4.	Social Impact / Customer Satisfaction	**Wind Energy Projects result in jobs in rural communities in manufacturing, transportation and project construction. Wind energy sector employment reaches a new high of more than 116,800 full time workers at the end of 2020. Without destroying the land and forest place to implant the wind turbines they will satisfy and wind turbines produces from renewable energy so there is no insufficient occurs.**
5.	Business Model (Revenue Model)	**Wind turbine owners can sell Electricity to local power utilities for homes and business. Wind turbines can make between $3000-$10,000 or more per year depending on the size and kilowatt capacity of the turbine.**

6.	Scalability of the Solution	**Cost for the wind turbines pose a risk to competitiveness and with machine-learning technologies and digitalization rapidly maturing, the wind industry is actively investigating these new technologies to optimize practices and reduce cost. The paper reviews recent work on machine learning approach about this case with collaboration between the National Renewable Energy Laboratory.**