Project Design Phase-I - Solution Fit Template

Project Title: Predicting The Energy Output Of Wind Turbine Based On Weather Condition **Team ID:** PNT2022TMID05596

Define CS, fit into CC

CS

1. CUSTOMER SEGMENT(S)

- Grid operators
- Energy suppliers
- Environmentalist

CC

6. CUSTOMER CONSTRAINTS

- Without installing devices in the turbine

AS

5. AVAILABLE SOLUTIONS

The existing systems are based on

- Physical parameters of turbine

Explore AS, differentiate

Focus on J&P, tap into BE,understand RC

J&P

2. JOBS-TO-BE-DONE/PROBLEM

- Providing a reliable deep learning model for prediction.

RC

9. PROBLEM ROOT CAUSE

- Over production
- Climatic changes

BE

7. BEHAVIOUR

- Customers spends a lot of time and effort to forecast the wind power.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS

TR

- Save renewable energy for future.
- Cost of overproduction.

4. EMOTIONS: BEFORE / AFTER

EM

- Confusion => Confident
  (early wind power prediction)

10. YOUR SOLUTION

SL

- User defined values prediction
- City-based prediction
- Future forecasting.
- Compatible with all devices.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

Using websites based on turbine data.

OFFLINE

Using sensors.

Extract online & offline CH of BE