Project Design Phase-I - Solution Fit TemplateProject Title:

Predicting the energy output of a wind turbine based on weather conditions.

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Who is your customer?

Wind energy producers.

6. CUSTOMER CONSTRAINTS CC

What constraints prevent your customers from taking action or limit their choices of solutions?

Lack of Budget, They are not clear on how to utilize the wind turbine effectively to produce a steady electricity.

5. AVAILABLE SOLUTIONS AS

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have?

Estimation is calculated based in past year energy output.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Which jobs-to-be-done (or problems) do you address for your customers?

To analyse the output energy of wind turbine in changing weather conditions. And to store the data in a dataset.

9. PROBLEM ROOT CAUSE RC

What is the real reason that this problem exists? What is the back story behind the need to do this job?

High initial cost setup and unpredictable changes in weather condition.

7. BEHAVIOUR BE

What does your customer do to address the problem and get the job done?

Calculates the usage and benefits. Collects the data from the potential wind farms and makes a comparison.

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

Identify strong TR & EM

3. TRIGGERS

TR

What triggers customers to act?

If the customer finds it as an efficient solution. It will automatically trigger all other customers to do it.

4. EMOTIONS: BEFORE / AFTER

EM

How do customers feel when they face a problem or a job and afterwards?

Before: Confused with improper energy flow.
After: Happy with the efficient technique.

10. YOUR SOLUTION

SL

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behavior.

The inlet condition of the wind turbine is forecasted by an auto regressive model. Hence it reduces the need for balancing energy and reserved power output energy.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

What kind of actions do customers take online?

It will analyse the data which are previously uploaded and predict the output energy.

8.2 OFFLINE

What kind of actions do customers take offline?

The inlet condition of the wind turbine is maintained constantly.

Identify strong TR & EM