1. CUSTOMER SEGMENT(S)

i.e. working parents of 0-5 y.o. kids

Who is your customer?

Define

င္ပင္

fit into

CS

Wind Farm Owners & Wind Power Producers

6. CUSTOMER CONSTRAINTS

CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Lack of Expertise

5. AVAILABLE SOLUTIONS



Team ID: PNT2022TMID31390

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? i.e. pen and paper is an alternative to digital

Using SCADA historical data and Machine learning algorithms for prediction

Using unsupervised learning and calibrating errors for prediction

Generating a mathematical curve along with prediction

2. JOBS-TO-BE-DONE / PROBLEMS



Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one: explore different sides.

Problems such as Change of weather, Change of seasons, Natural Calamity, Cyclone, Failure, Outages, etc which need to be addressed to the consumers for which prediction of maximum wind power generation is required

9. PROBLEM ROOT CAUSE



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

this job?

i.e. customers have to do it because of the change in regulations.

The main limitation in wind energy prediction is due to varying weather conditions, inconsistent nature of the wind which causes inconsistent power output

High investment but less and delayed returns.

7. BEHAVIOUR

notetaking



What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e.

Being a wind power producer, he is able to give accurate wind power output to his consumers and this satisfies both primary and secondary consumers. He is able to tap the maximum wind power potential based on the prediction. This gives him more financial benefits.

3. TRIGGERS

strong



What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

If the customer finds it as an efficient solution, it will be automatically recommended by him/her to other wind power producers for better operation of wind power plants. The power utility (like TNEB/TANGEDCO) will recommend this solution to other wind power producers.

4. EMOTIONS: BEFORE / AFTER



How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

Before: Perplexed with improper energy flow and gets frustrated

After: Happy with the efficient technique for maximum generation and evacuation

10. YOUR SOLUTION



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 behaviour.

With weather, Wind Mill altitude, Location, Wind speed as parameters, different ML algorithms will be trained and tested. Then, the best performing algorithm which gives the highest accuracy will be deployed as a web app. The Web app will be user-friendly, with an explanation of electrical terms used. A notification system will be used to notify users priorly if the expected power can't be generated due to unexpected weather changes like sudden rainfall or outages.

8. CHANNELS of BEHAVIOUR



8.1 ONLIN

What kind of actions do customers take online? Extract online channels from #7

8.2 OFFLINI

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

Offline: Ask field experts, Monitoring and maintaining wind farms, Having discussion with other Wind farm producers and TNEB in this regard

Online: Searching in google, Contacting experts online through professional platforms, Update Offline production data

T	