Team ID	**PNT2022TMID52191**
Project Name	**Project - Predicting the energy output ofwind turbine based on weather conditions**
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Solution Fit

1. CUSTOMER SEGMENT(S) Who is your customer? i.e. workingparents of 0-5 y.o. kids **Windmill electricians, poweranalysists , research studentson wind energy, electricity suppliers, government electricity board, windmill owners**	**6. CUSTOMER CONSTRAINTS** What constraints prevent your customers fromtaking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices. **Weather on that particular time period, budget(spending more capitalinvestment), topology, storms(power supply might not available), network issues**	**5. AVAILABLE SOLUTIONS** Which solutions are available to the customerswhen 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 notetaking **Changes in materials (copper, fiberglass, and iron), labour (employeeproductivity), legal and financial costs contributed over 30% to the cost reduction of wind turbine prices over the period 2005–2017.**
2. JOBS-TO-BE-DONE /PROBLEMS Which jobs-to-be-done (or problems) do you address for yourcustomers? There could be more than one; explore different sides. **Get the output energy accurate Get experts to handle the wind mill readingsIdentify and eliminate any outliers to prevent misprediction. These outliers may happen rarely and some might be crucial, hence identifying them might be a difficult task. Routing of the power supply based on the prediction made Update the data regularly for the convenience for the user**	**9. PROBLEM ROOT CAUSE** What is the real reason that this problem exists? What is the back story behind the needto do this job? i.e. customers have to do it because of the change in regulations. **The supply of electricity produced bywindmill has not always been stable due to the unpredictable weather conditions. Thereby, we try to build this system which can predict the power output based on the weather and other factors.**	**7. BEHAVIOUR** What does your customer do to address theproblem 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. Greenpeace) **find the right topology for installing wind mills, calculate usage and benefits; ,experts spend free time on volunteering work , cooperate with private or government electricity suppliers for providing power supply**

3. TRIGGERS What triggers customers to act? i.e. seeing their neighbour installing solarpanels, reading about a more efficientsolution in the news. **Awareness on wind energy , continuous and stable supply ofelectricity, Sustainable Development**	**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 inthe canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour. **Long-term wind power forecasting is to be performed based on daily wind speed data using machine learning algorithms and statistical methods as aSAAS model.**	**8. CHANNELS of BEHAVIOUR** 8.1 ONLINE What kind of actions do customers take online? Extract online channelsfrom **Take the energy output and weatherreadings and do the analysis on it. Promote the advantageous of the system in terms of efficiency thus gaining more power consumers**
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 yourcommunication strategy & design. **Before: Complex , expensive,very technical** **After: Wind energy becomes reliable source.**		**8.2 OFFLINE** What kind of actions do customers take offline? Extract offline channels from and usethem for customer development. **Use the extracted power output unitsand use it to supply stable chain of electricity**