

**Business Requirement Document for Energy Conservation Project for Mother Dairy**



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**Mother Dairy Fruits and Vegetables**

1. **Overview**

The current blueprint document helps to streamline and automate the energy saving processes for the Booths of Mother Dairy by sensing temperature, monitoring doors and compressors to identify the trends and implement predictive mechanisms to avoid abrupt shutdowns and prevent losses due t goods deterioration

* 1. **Project Objectives**

The Proof-of-Concept should ensure the achievement of following objectives:

* To bring down the electricity charges by through condition based on/off of cooling equipment.
* To cut down maintenance costs by predictive analytics (to be done with time)
* To ensure proper functioning of the hardware and accuracy of the data captured at various points of time.
  1. **Technical Environment:** we need to mention requirements for integration with them

1. **Processes**
   1. Energy Conservation Process with Elixia:

* This process will involve the monitoring of following:
* Temperature of the blower of MCU (Milk Chilling Unit)
* Monitoring opening and closing of door.
* Power consumed by compressor.
* Temperature monitoring of Compressor.
* These sensors will be connected to a communication device which will capture and communicate the data in real time with the concerned stakeholders in case of any conflict in the expected functioning and actual functioning of the booth. Initially this data will help to take preventive actions but with due course of time with data collection and analytics system should be able to predict the failures and help in enhancing life of the equipment and goods.

* Miscellaneous factors involved:
* The Device will be consuming power from the mains. Therefore, in case of device failure the whole power supply gets disconnected thus resulting in goods deterioration of goods.
* The system should automatically shut off the ac after 30 seconds of door opening and should on it after 30 seconds of door closure.
* The system should be foolproof and robust to handle day to day operations.
* SLAs are very stringent of less than 6 hrs.
* Current Challenges:
* Service levels are low
* Door sensors are not robust.
* Communication lag, Relay burn outs, contractors’ failure.
* Lack of by pass mechanism in case of device failure.
  1. Requirements from Mother Dairy:
* We need to understand the offerings of the current system and data flow.
* Any other factor involved apart from the above-mentioned parameters.
* Active involvement in further understanding of the requirements and challenges.