IoT Solution for Cold Chain

Creating Reliable Cold Chain Management through IoT

Executive Summary

Parekh Integrated Services Private Limited (PISPL) has warehouses located in remote areas. They needed to ensure that they maintain the unbroken cold chain for temperature sensitive products. Energy and fuel were two largest operating costs for them.

Using SenseGrow’s ioEYE™ Platform, our partner LogicLadder™ delivered their EnergyLogicIQ™ product. This solution ultimately helped lower the spoilage rate of temperature sensitive goods while lowering their energy and fuel costs.

Parekh Integrated Services Private Limited

PISPL is a pioneer in the field of warehousing, distribution and supply chain solutions. PISPL provides customized warehouse management systems, flexible point-to-point distribution solutions, complex end-to-end integrated logistics solutions and supply chain management. They have an elite clientele of more than 70 companies, PISPL stores and distributes temperature sensitive products for leading brands in pharmaceuticals, food and medical implant industry. PISPL has a network of more than 300 warehouses in more than 55 cities across India.

Project Summary

Customer:
Parekh Integrated Services Private Limited

Location:
Multiple Locations, India

Industry:
Supply Chain

Solution Offered:
ioEYE™
Approach

SenseGrow worked with our partner, LogicLadder, to install wireless temperature sensors in temperature-controlled environments. Hardware and software was installed for both generator fuel management and energy meters on utility supply.

Results

- 90% fewer spoiled goods.
- 28% fewer breakdowns in Diesel Generator and HVAC sets.
- Reduced energy consumption by not unnecessarily cooling below the required limit.
- 25% reduction in energy costs.

Challenges:

Most of these warehouses run on utility and generator power. Since these warehouses are in remote locations, power outages are a very common scenario. Diesel fuel, thereby, becomes a significant cost for these warehouses.

Energy consumption was also very high because lack of consistent temperature in the storage units created pockets of over-cooled and under-cooled areas. This resulted in more energy being used to over-cool some areas while trying to lower the temperature of the under-cooled areas.

Due to lack of consistent temperature in all areas and no way to control it, PISPL was also losing a significant amount of their temperature sensitive goods due to spoilage.

Solution Offered:

ioEYE.

Results:

PISPL is now recording a 90% reduction in spoilage of goods destroyed due to temperature fluctuations. Their energy costs are down by 25% and have also observed a 28% reduction in breakdown of their Diesel Generator and HVAC sets.