Bridging power solution for isolated egg production facility

**CUSTOMER**
One of the largest egg producers in Japan

**LOCATION**
Shizuoka, Japan

**SECTOR**
Food and Beverage

**KEY FACTS**

4 x 1400 kVA
Power Generators

2 MW
Primary power generated

5,840
Manhour costs saved

14 Days
From install to operation

160 million
Eggs produced per day (max)
THE CHALLENGE

Quick power to achieve production and financial objectives

One of Japan’s largest egg producers was expanding its network of farms in the country due to increasing demand. The company has stringent quality standard controls with farms ideally situated away from industrial zones and densely populated urban regions to minimise exposure of pollutants.

The choice of location posed a challenge in terms of power due to its rural location. The current power infrastructure was not able to keep up with the area’s growth. Our customer could only rely 0.5 kW of power from the grid while their daily load requires up to 2 MW of power. It would take at least two years for the grid to expand its infrastructure to meet their current power demand. They needed a quick solution to bridge the power gap so they can capitalise on market demand, accelerate revenue velocity and reach financial break-even for its new facility.

The customer also wanted to use its existing fuel source AFO, which is a blend of diesel and heavy oil and not a standard fuel.

THE SOLUTION

Turnkey power solution with best-in-class Remote Monitoring Technology (IPM)

The egg producer approached Aggreko for a quick turnkey solution that could help them achieve their production and financial goals.

Our engineers did a thorough site survey with the factory’s operations team to understand the site’s design, operational requirements and challenges before coming up with a bespoke turnkey power solution. In compliance with strict local regulatory processes, Aggreko managed to deploy, install and commission a 2MW power pack with four diesel generators within just 14 days.

With no power engineers or expertise in-house, we offered the customer a turnkey solution from engineering design, installation, commissioning, to operations and maintenance for the power plant.

Aggreko has two key proprietary technologies that have been developed to help our customers directly optimise their energy usage. Aggreko’s Remote Monitoring System (ARM) and Island Power Management System (IPM) were both incorporated into the solution we offered the egg producer.

ARM allows the monitoring and optimisation of generators’ power loads and fuel usage, reducing emissions and impact to the environment. It also allows the ability to anticipate performance issues so we can proactively deploy fixes to enhance and maintain the generators’ performance for better efficiency.

The IPM allowed an unmanned site to operate at night, based on automation. It synchronises while optimising the load and controls the start/stop between the generators based on the factory’s power requirements, enabling full automated operation during out of hours.

The integrated technological set-up of both these systems allows the reduction of manual tasks previously done by technicians. This means a reduction in both man-hours and overhead costs for plant maintenance.

As for utilising the AFO fuel, Aggreko was able to provide a local specialist pump and ROT filtration system bringing a complete solution that encompasses all the client needs.

Aggreko’s Remote Monitoring System (ARM) and Island Power Management System (IPM) were both incorporated into the solution we offered the egg producer.

ARM allows the monitoring and optimisation of generators’ power loads and fuel usage, reducing emissions and impact to the environment. It also allows the ability to anticipate performance issues so we can proactively deploy fixes to enhance and maintain the generators’ performance for better efficiency.

The IPM allowed an unmanned site to operate at night, based on automation. It synchronises while optimising the load and controls the start/stop between the generators based on the factory’s power requirements, enabling full automated operation during out of hours.

The integrated technological set-up of both these systems allows the reduction of manual tasks previously done by technicians. This means a reduction in both man-hours and overhead costs for plant maintenance.

As for utilising the AFO fuel, Aggreko was able to provide a local specialist pump and ROT filtration system bringing a complete solution that encompasses all the client needs.
The quick delivery of the solution for the factory ensured there was no production down time. With our bespoke project design, reliable operation and turnkey approach for their power solution, the customer was immensely satisfied with the power plant’s performance. It helped them achieve the required projected production scale to generate additional revenue, while maintaining their leading position in the market place.

Achieving production targets and maintain market-leading position

A cracking solution, avoiding production downtime and revenue loss