

# CLIENT CASE

# LOWERING OPERATIONAL COSTS

## MANUFACTURING INDONESIA

- UPS type: Dynamic UPS
- Power module: 2,500 kVA
- No-break rating: 2,000 kW @ 0.8pf of net useable power
- Phasing: 2 modules total
- Operating voltage: 400 V/50 Hz
- Configuration: N+1 redundant
- Install: Indoor
- ROI: 9.5 months

The client highlighted in this profile is a global leader in the supply of plastic pipe systems and solutions for both above and below ground applications in projects around the world. They are headquartered in the Netherlands, with sales and manufacturing operations in most European countries.

The company's Indonesian plant is comprised of three factories producing pipes and fittings. Because the power grid was found to be unreliable in the region, they needed to rely upon continuously operating diesel generators to support the factory 24x7.

### Project Challenge

Our client originally countered the power instability of the utility by relying on six large diesel generators to supply power to the factory. Three of the diesel generators operated 24 hours per day, one served as a redundant unit, and the other two were under maintenance or being overhauled. Having a third of the power plant under constant maintenance was a necessity due to their age and continuous usage, which added to the factory's significant operational costs.

In addition to operational and maintenance costs, the plant was generating large fuel bills to run the diesel generators on a constant basis. Together, the three generators would consume a total of 4,000 gallons of fuel per day, bringing the yearly fuel cost alone to approximately \$4.2MM/year.

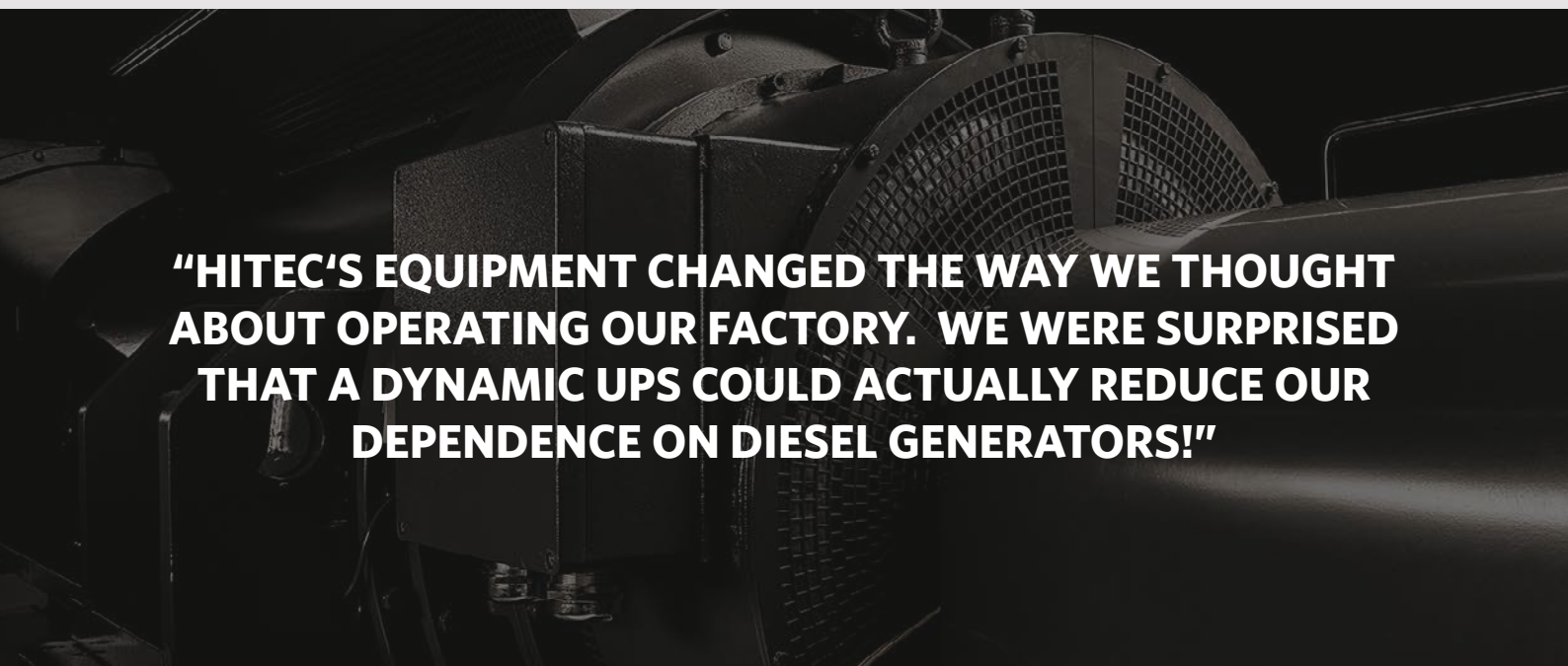
And to make matters worse, the entire solution proved to be less than optimal since it took up to 24 hours to bring the plant back online following even a 1 second power outage or power dip. Clearly, they needed to find a better solution to Indonesia's unreliable power supply.



## Project Solution

HITEC was asked to prove the viability of replacing the existing diesel generators with the company's flagship dynamic UPS system. Stepping up to the challenge, HITEC conducted a detailed survey of the incoming utility supply over a threemonth period. HITEC collected data relating to the plant's power consumption and load profile, as well as estimating the downtime cost. Based on these numbers and an aggressive ROI requirement, a total cost of ownership was presented.

The study revealed that the maximum deviation of the utility frequency was well within the HITEC system's specifications, and that the UPS portion of the unit would protect the factory such that it would no longer need to use the diesel generators as its primary power source. The proposed HITEC solution to replace the existing diesel generator system with dynamic UPS would dramatically reduce the operational cost and fuel usage while maintaining the output specification.



**"HITEC'S EQUIPMENT CHANGED THE WAY WE THOUGHT ABOUT OPERATING OUR FACTORY. WE WERE SURPRISED THAT A DYNAMIC UPS COULD ACTUALLY REDUCE OUR DEPENDENCE ON DIESEL GENERATORS!"**

## Customer Experience

By selecting HITEC's Dynamic UPS system, Wavin saved 1.4 million gallons of diesel fuel per year. In addition, the Dynamic UPS system conditions the utility power feeding the PVC pipe factory, totally

removing the reliance upon diesel generators for primary power. Wavin also reduced their operating costs: Ultimately, the return on investment for the project was less than one year.



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