

Airline Parts Manufacturer Lands Great Opportunities With Gov Required Energy Audit

Northmore Gordon worked closely with a Singapore- based parts manufacturer over 2021 to complete an Energy Efficiency Opportunities Assessment as required by Singapore's National Environment Agency (NEA). The complex requirements of the Program were fully met and the report submitted on time. In addition, NG identified practical energy saving opportunities that are now being implemented.

The Client

The Client has been established in Singapore for many years, with several large manufacturing operations. The operation involves high-precision parts machining, custom treatment, finishing, and final inspection. It is supported by utilities including compressed air, air conditioning and large chiller systems, centralised lubrication systems, and cooling towers.

The Project

To meet the requirements of the Energy Conservation Act, Singapore sites that use over 54 TJ per annum must undertake an Energy Efficiency Opportunity Assessment.

The upgrades recommended included compressed air efficiency, shutting off unnecessary operation of equipment, and more efficient cooling for the machine-centre oil cooling system.

Key Facts

- EEOA-RC completed in line with regulation
- Annual Savings Estimates
 - Energy: 1,900 MWh
 - Carbon Abatement: 780 tCO₂e
 - OPEX: ~\$180,000
- Project Details
 - CAPEX: ~\$460,000
 - Payback: ~2.5 years

Challenges

- Competitive pressures to provide high quality service whilst minimising operating costs
- Energy bills represent a substantial cost the operations
- There are global targets for energy and water efficiency
- Ageing equipment and production pressures mean savings measures cannot impact reliability

Additional Benefits

- More stable air pressure is expected
- More stable operating temperatures
- Lower maintenance costs on pumps through reduced running hours.

Our Role

Northmore Gordon worked very hard to complete the work to the standard required by the NEA in the timeframe. This included working through the difficulties of restrictions that occurred in 2020 due to Covid lockdowns. The work included installing temporary metering, reading of on-site meters, development of a detailed energy balance, analysis of the data, identification of energy efficiency opportunities in conjunction with the Client, completion of the NEA's report template, and achieving sign-off by the Client stakeholders.

Northmore Gordon is a leader in environmental certificate creation and trading. We have created the most certificates of all Accredited Persons under the Victorian Energy Upgrades program, an Accredited Certificate Provider in the NSW Energy Savings Scheme, and registered agent under the Federal Renewable Energy Target.

We've provided \$100m of financial incentives for energy efficiency and renewable energy projects at over 35,000 commercial, industrial and residential sites. This has saved our clients and partners gigawatt hours of energy, millions of dollars and reduced greenhouse gas emissions by over 5 million tonnes of CO₂e.



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