

# THOMAS FOODS INTERNATIONAL

Thomas Foods International hot on the trail of heat recovery through the Food SA Business Case for Energy Efficient Equipment program

Thomas Foods International is Australia's largest, 100% family-owned meat processing company with an annual revenue of over \$1 billion. Sites around Australia produce a wide range of beef, lamb, mutton, goat and value added products. Their site in Lobethal is one of the largest commercial enterprises in South Australia and one of the top five meat processing operations in Australia, with a production capacity of 5,000 heads of lamb per day. The Lobethal facility includes a state-of-the-art export accredited boning room and further processing facilities for sausages, rissoles, and a wide range of other value-added meat products.

From slaughtering and packing to holding and cleaning, meat processing facilities offer significant opportunities for energy efficiency in refrigeration, air conditioning systems, boiler systems, lighting, and processing equipment. With an annual electricity consumption of over 7GWh, the Lobethal operations were no exception. In 2013, Thomas Foods International took part in the Food SA Business Case for Energy Efficient Equipment (BCEEE) program in partnership with Zero Waste SA, under the Energy Efficiency Information Grant Program, funded by the Australian Government, Department of Resources, Energy and Tourism.

As part of the BCEEE program, Food SA engaged independent consultants to conduct site inspections and identify energy efficiency opportunities in the Lobethal site. Through this process, an opportunity to fully utilise the heat reclaim system already installed in the plant to produce all the pre-heated water (up to 70 °C) needed for the site's operations was uncovered. Further, a proposed replacement of the current shrink packaging system operating with electricity with a new steam-based system, would provide additional gains in the utilisation of the heat recovered from refrigeration processes. A third recommendation was to upgrade the boiler capacity with three new steam boilers to supply hot water above 70 °C and steam.

The proposed upgrade plans would require an investment of \$1,000,000, with the following expected outcomes:

- Annual gas savings of 224,000 litres of LPG.
- Annual electricity savings of 177,800 kilowatts per hour.
- Annual cost savings amounting to over \$135,000.
- Annual savings in water consumption of 3,700,000 litres, with an estimated cost of over \$9,000.
- Annual savings in water treatment and service costs of \$28,000.
- Annual savings in maintenance costs, estimated between \$15,000 and \$20,000.

If you would like to learn more about the Food SA BCEE, please visit our [Energy Efficiency Equipment webpage](#), which offers a wealth of information about energy efficiency opportunities and how to assess the business case for the uptake of energy efficient equipment and practices.



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**Australian Government**  
Department of Resources,  
Energy and Tourism



**Government  
of South Australia**  
Zero Waste SA