

The Food SA Business Case for Energy Efficient Equipment program reveals energy and cost saving opportunities for Angelakis Bros

Angelakis Bros is an Australian owned, family operated company and is dedicated to delivering fine seafood, poultry and game. Their production facilities in South Australia produce a wide range of fresh and frozen products, including sausages, marinated fish and poultry, finger foods, crumbed and battered seafood.

Angelakis has a strong commitment to deliver high quality and consistency in their products and services, while in parallel they are committed to continually improve their environmental performance. A seamless, energy-efficient cold chain is a crucial component of this vision. Angelakis operates three manufacturing sites around Adelaide, with an annual electricity consumption of 900 megawatts per hour, resulting in 1,266 tonnes of carbon dioxide. Refrigeration across the three sites accounts for 85% of the electricity consumption.

To identify energy efficiency opportunities, Angelakis participated 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 Governments Department of Resources, Energy and Tourism.

As part of the BCEEE program, Food SA engaged independent consultants to conduct site inspections and gain an understanding of Angelakis' equipment and operational requirements. Through this process, a plan to upgrade and consolidate the refrigeration plants was mapped out. The proposed plan includes the improvement of the coefficient performance of the refrigeration plant, the implementation of variable speed drives, and the optimisation of control systems to reduce maximum power consumption, whilst maintaining the optimum temperature requirements for Angelakis' products. Additionally the new units would utilise the refrigerants R404a and R507, which have lower global warming potentials than R22.

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

- Annual electricity savings of 39%.
- An emissions reduction of 877 tonnes of carbon dioxide, equivalent to avoiding the carbon dioxide emissions of 183 cars annually.
- Annual electricity cost savings of \$76,000.
- Annual refrigerant costs reduced by 96%.

A proposal for funding was submitted to the Clean Technology Food and Foundries Investment program and it is currently awaiting for a decision.

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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