

MILESTONE REPORT

PROJECT CODE:	2017-1015 - Leveraging Strategic Energy Projects to Enhance Productivity at Red Meat Processing Sites
MILESTONE NUMBER:	5, 6, 7 and 8
PREPARED BY:	Roger Horwood
DATE SUBMITTED:	11 June 2020

The Australian Meat Processor Corporation acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

AUSTRALIAN MEAT PROCESSOR CORPORATION





TABLE OF CONTENTS

Table o	of Contents	2
1.0	MILESTONE DESCRIPTION	3
2.0	ABSTRACT	5
3.0	PROJECT OBJECTIVES	5
4.0	METHODOLOGY (OPTIONAL)	5
5.0	STAGE SUMMARY (REVIEW OF PREVIOUS STAGE WHERE APPLICABLE)	5
6.0	OVERALL PROGRESS OF THE PROJECT	8
7.0	DISCUSSION (OPTIONAL)	8
8.0	CONCLUSIONS/ RECOMMENDATIONS	9
9.0	BIBLIOGRAPHY	9



 \bigcirc



1.0 MILESTONE DESCRIPTION

PROJECT NO: 2017-1015 - Leveraging Strategic Energy Products to Enhance Productivity at Red Meat Processing Sites is made up of the following milestones and phases of work:

Overview of Energy Productivity Capacity Building Program

This research project was commissioned to help address the need to increase the use and uptake of AMPC research information and other training/tools to identify and develop business cases for energy productivity projects. The overall approach for this research project is as follows:



AUSTRALIAN MEAT PROCESSOR CORPORATION



This report is for Milestones 5 to 8 (shaded cells below)..

Milestone	Achievement Criteria	Due Date
1	 PHASE ONE – Planning & Engagement: Planning and consultation with AMPC working groups and development of learning outcomes Planning session with AMPC project team Detailed project plan Planning meeting with AMPC ENVIRONMENT NETWORK Call 20 SMEs – define learning outcomes and assess potential for pilot sites 	01/11/2016
2	 PHASE ONE – Planning & Engagement: Develop outlines for pilots / training / roadshows / case studies / prototype energy productivity feasibility decision making checklists Outlines for all extension activities Draft Presentation (ppt) pack, checklist tools and learning exercises for all extension activities List of potential EP projects to test and refine with pilot sites 	16/01/2017
3	 PHASE ONE – Planning & Engagement: Pilot / test all materials and tools at three sites Three business cases for energy productivity projects – feasability tested with pilot sites Phase One report including GO/ NO GO outcomes 	01/06/2017
4	Major Milestone Review	30/06/2017
5	 PHASE TWO – Roll out extension activities: Planning meeting with AMPC project team Three energy productivity case studies integrated into presentation materials 	01/08/2017
6	 PHASE TWO – Roll out extension activities: Assistance with recruiting participants for roadshows and training events Prepare roadshow materials (copies to be supplied by AMPC) Five energy productivity roadshows to present case examples Participate in annual review if appropriate 	02/10/2017
7	 PHASE TWO – Roll out extension activities: Develop & Deliver 2 x 1-day feasibility workshops (training sessions) Follow up coaching with participants 	21/12/2018
8	 PHASE TWO – Roll out extension activities: Develop & Deliver 3 x 1-day feasibility workshops (training sessions) Follow up coaching with participants Milestone report for phase 2 Snapshot report for phase 2. 	01/04/2019 Final delivery during COVID- 19 using webinars 10/06/2020

 \bigcirc



2.0 ABSTRACT

The scope of this milestone report is to describe and report on the activities conducted to achieve Phase 2 Milestones 5 to 8 – *Case studies integrated in to workshop materials, deliver roll-out extensions as a roadshow of executive briefing sessions and training sessions.*

The key achievements of these milestones are:

- (1) Complete roadshow presentation materials and workshop training materials
- (2) Deliver five roadshows to introduce energy productivity program
- (3) Deliver two face to face to workshops and three webinars for the training program
- (4) Complete a Phase Two report
- (5) Conduct a Major Milestone Review

In summary: Phases One and Two of the project are complete.

3.0 PROJECT OBJECTIVES

The project objectives are:

- To raise awareness across small and medium sized companies (a large proportion of the industry) of the value in driving energy productivity improvements, so that a cohort of 'implementation ready' processors can form with the negotiating power to achieve affordable finance, attract advantageous pricing from suppliers and win government funding where available.
- To capitalise on existing AMPC energy-related research as a key component for assessing energy productivity opportunities.

4.0 METHODOLOGY (OPTIONAL)

The project objectives will be achieved by developing and rolling out the following activities:

- initial consultations
- demonstration pilots at selected sites
- case studies
- roadshows
- training courses
- the creation of a cohort of 'implementation ready' processors.

5.0 STAGE SUMMARY (REVIEW OF PREVIOUS STAGE WHERE APPLICABLE)

This section covers three areas: it summarises the progress on project milestones to date, it describes the roll extension activities and it summarises the status of milestone deliverables.

AUSTRALIAN MEAT PROCESSOR CORPORATION



5.1 Progress on project milestones

The previous Phase One, Milestones 1, 2, 3 and 4 are complete.

Overall, Phase Two Milestones 5 to 8 have been completed after some significant delays. These delays were due to AMPC restructuring and difficulty in arranging suitable times and recruiting sufficient participants for training workshops.

5.2 Roll out extension activities

The roll out extension activities included the development of presentation materials, the integration of the pilot case studies developed during phase 1 of the program, delivery of executive briefing roadshows and training workshops.

Executive briefings

The executive briefing sessions were designed to attract the more senior managers of the red meat processing plants. The briefing was delivered as a 90-minute session on how to make strategic energy management decisions that affect the bottom line. The red meat processing industry is facing many challenges including:

- 1. Cyclic availability and pricing of animals for processing
- 2. Highly variable energy costs
- 3. Increasing equipment and processing costs
- 4. Increased competition both local and international
- 5. Increasing regulations for environmental sustainability

Benefits for site managers and owners who participated in these briefing sessions

- Make informed decisions about energy generation, energy efficiency, energy contracts, waste, water, and energy management.
- Get expert input into the business case for the best energy productivity option for your current business plans.
- Improve your margins and gain other productivity benefits when you implement your next business initiative.
- Better manage environmental compliance challenges
- Should you attend the planned follow up training days you will have your own energy consultant available for a short time to assist you with your business plans.

Training workshops

This one-day training program consists of the following activities:

- An overview of strategic energy management options that can deliver step change in the profitability of your business.eg
- An introduction to an energy productivity tool that facilitates decisions on the best energy productivity options for your site given your current business plans.
- The opportunity to benchmark your energy productivity just how much energy does it take to produce a steak, a kilo of meat or process a carcass?
- Exposure to 3 case examples of sites that have embraced energy productivity as a means of increasing profit margins for their latest business ventures.

AUSTRALIAN MEAT PROCESSOR CORPORATION



- Step by step support with building the business case (feasibility) for your best EP option
- Access to your own energy consultant after the training to support implementation of your plans
- An opportunity to join a group of implementation ready sites and gain bigger margins from group purchasing or incentives from government programs

Learning Outcomes

- 1. Recognise the best energy options to suit your business plans
- 2. Discover if your site is using too much energy to produce a tonne of meat product
- 3. Develop a mud map to enhance your business plans by cutting your energy costs by 20 percent
- 4. Get started on developing an ongoing plan to reduce energy costs over the short mediumand long-term Benefits for participants
- 5. Make the right decisions about energy generation, energy efficiency, energy contracts, waste, water and energy management
- 6. Get expert input into the business case for the best energy productivity option for your current business plans.
- 7. Learn from other small and medium sized processors who have been there done that!
- 8. You will have your own energy consultant available after the training to assist you with your business plans



Training Timetable

Suggested Timing	Торіс	Learning activities & group process
8.00-8.30am	Arrival & Introductions	
8.30 – 9.30	Session 1: Energy productivity – what plans do you have for your site? Are you exploiting the trends in the market?	 Communication market individual worksheet "Business Plans" working in pairs to read case studies and check off market trends
9.30 – 10.30am	Session 2: Strategic energy options that compliment meat processing sites – Which strategic energy options are best for your business?	Energy Productivity Checklist Review fact sheets for energy efficiency, biogas production, solar PV and others. (part of communication market).
	MORNING TEA	
11.00 – 12.00	Session 3: Understanding your sites energy use – How does your site compare with best practice?	Small groups will use dummy data to gain experience with benchmarking tool. Individuals then use their own site energy water and production data to benchmark their site's performance
12.00- 12.30pm	Session 4: Building an ongoing program to reduce energy costs from the business	Individuals complete energy project and program templates
12.30 – 1.00pm	Setting up your coaching* & business planning support	Identify your coaching needs. Exchange contact details

*Up to one hour of remote coaching will be made available for each participant within 4 weeks post workshop to refine their business cases and or their business plans. All analysis, materials and tools from the pilot sites will be made available so that participants have a model to integrate strategic energy options into their business plans.

5.3 Status of milestone deliverables

Phase 2 milestones have been completed.

6.0 OVERALL PROGRESS OF THE PROJECT

Both Phase One and Two of the project are complete.

7.0 DISCUSSION (OPTIONAL)

No additional discussion required.



8.0 CONCLUSIONS/ RECOMMENDATIONS

The overall program has been successful in engaging AMPC members in the development of energy productivity projects.

Webinar delivery during the COVID-19 period has engaged more members in the discussion of energy productivity activities and projects than during the face to face workshops held in 2018/19. We would recommend continuing to arrange and deliver webinars for AMPC programs.

The the creation of a cohort of 'implementation ready' processors is still under way, webinars have generated a lot of interest and we hope more members will develop PIP applications and work with AMPC to develop projects. The development of the solar PV and battery plus biomass boiler LCOE evaluation tool (Project no: 2020-1054) will provide a good opportunity to continue to engage AMPC members in the energy productivity project developments.

9.0 **BIBLIOGRAPHY**

These references are embedded in the energy and water benchmarking tool (see milestone report for 2017-1030) and used in workshop presentations and webinars materials.

Australian Industry Group, n.d. Saving energy in abattoirs & meat processing facilities. Fact Sheet. AI Group.

Australian Meat Processor Corporation, 2015. *Environmental Performance Review: Red Meat Processing Sector 2015*, Australian Meat Processor Corporation, North Sydney.

Australian Meat Processor Corporation, 2012. *Water Use in Red Meat Processing*, Australian Meat Processor Corporation, North Sydney.

Australian Meat Processor Corporation, 2012. *Waste Water Management in the Australia Red Meat Processing Industry*, Australian Meat Processor Corporation, North Sydney.

Energetics, 2014. <*client names withheld> EEO Site Assessment Report*. Energetics, North Sydney.

Energetics, 2012. <*client names withheld> Level 1 Energy Audit Report*. Energetics, North Sydney.

Meat and Livestock Australia (MLA) Ltd, 2013. *NGERS and Wastewater Management – mapping waste streams and quantifying the impacts*. Meat & Livestock Australia Limited, North Sydney.

Meat and Livestock Australia (MLA) Ltd, 2011. *Energy efficiency opportunities program report (Federal Government)*. Meat & Livestock Australia Limited, North Sydney.

Meat and Livestock Australia (MLA) Ltd, 2011. *Optimising integrated water reuse and waste heat recovery in rendering plants and abattoirs.* Meat & Livestock Australia Limited, North Sydney.

Meat and Livestock Australia (MLA) Ltd, 2002. *Eco-Efficiency Manual for Meat Processing*. Available at: http://www.ecoefficiency.com.au/Portals/56/factsheets/foodprocess/meat/ecomeat_manual.pdf [Accessed 3 Aug. 2017].

Meat and Livestock Australia (MLA) Ltd, 2004. Water Reuse Project Priority Setting Through



Assessment of Industry Impact. Meat & Livestock Australia Limited, North Sydney.

The Ecoefficiency Group, n.d. *Biogas and covered anaerobic lagoons in Red Meat Processing Plants*. Powerpoint presentation.

 \bigcirc