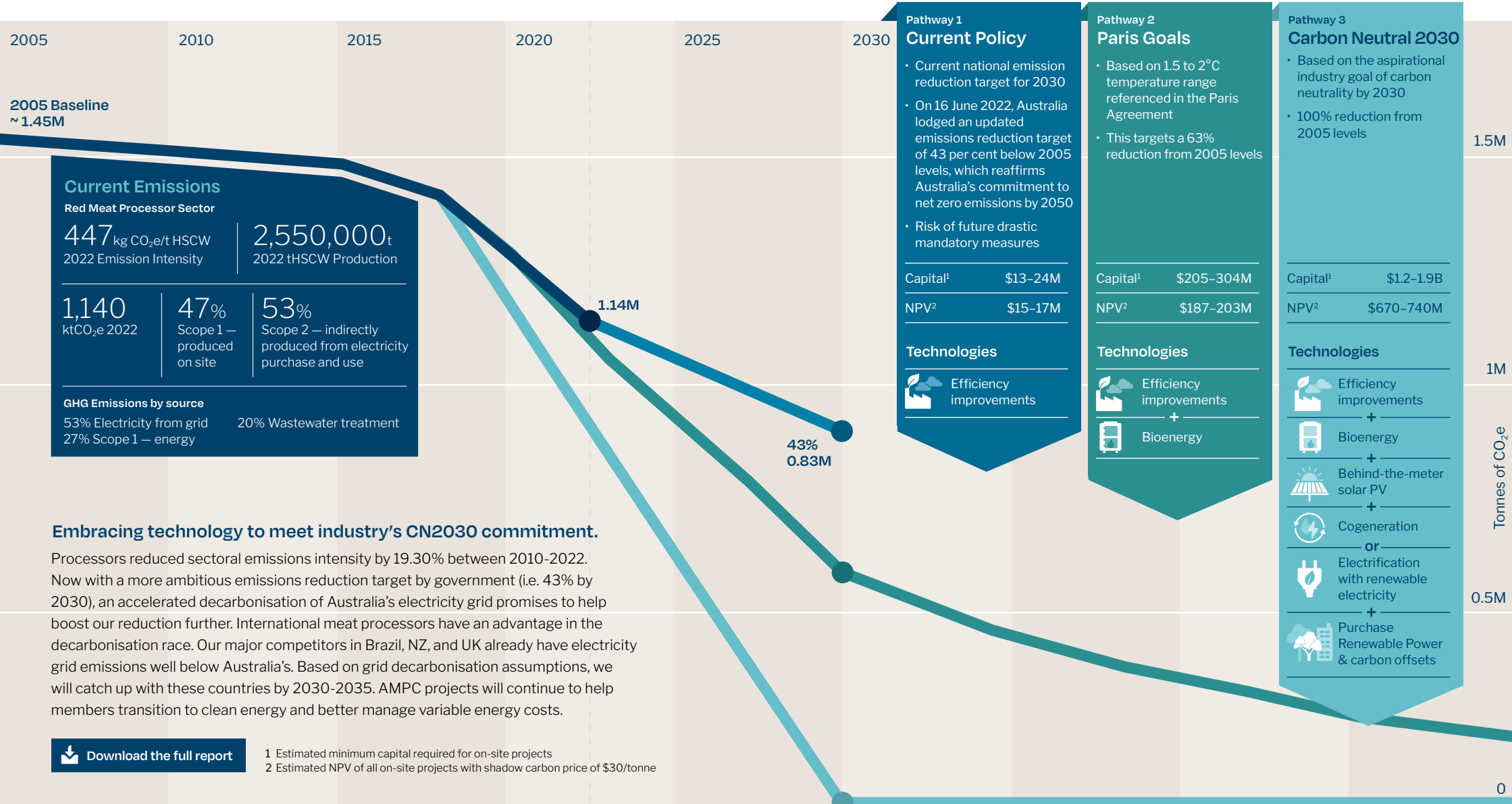


A decarbonisation pathway helps minimise the risk of high-cost solutions in the future.

The capital and NPV values calculated assume that the grid will decarbonise at the rate predicted in Table 38 of the DCCEEW *Australia's Emissions Projections 2022* report.



Embracing technology to meet industry's CN2030 commitment.

Processors reduced sectoral emissions intensity by 19.30% between 2010-2022. Now with a more ambitious emissions reduction target by government (i.e. 43% by 2030), an accelerated decarbonisation of Australia's electricity grid promises to help boost our reduction further. International meat processors have an advantage in the decarbonisation race. Our major competitors in Brazil, NZ, and UK already have electricity grid emissions well below Australia's. Based on grid decarbonisation assumptions, we will catch up with these countries by 2030-2035. AMPC projects will continue to help members transition to clean energy and better manage variable energy costs.

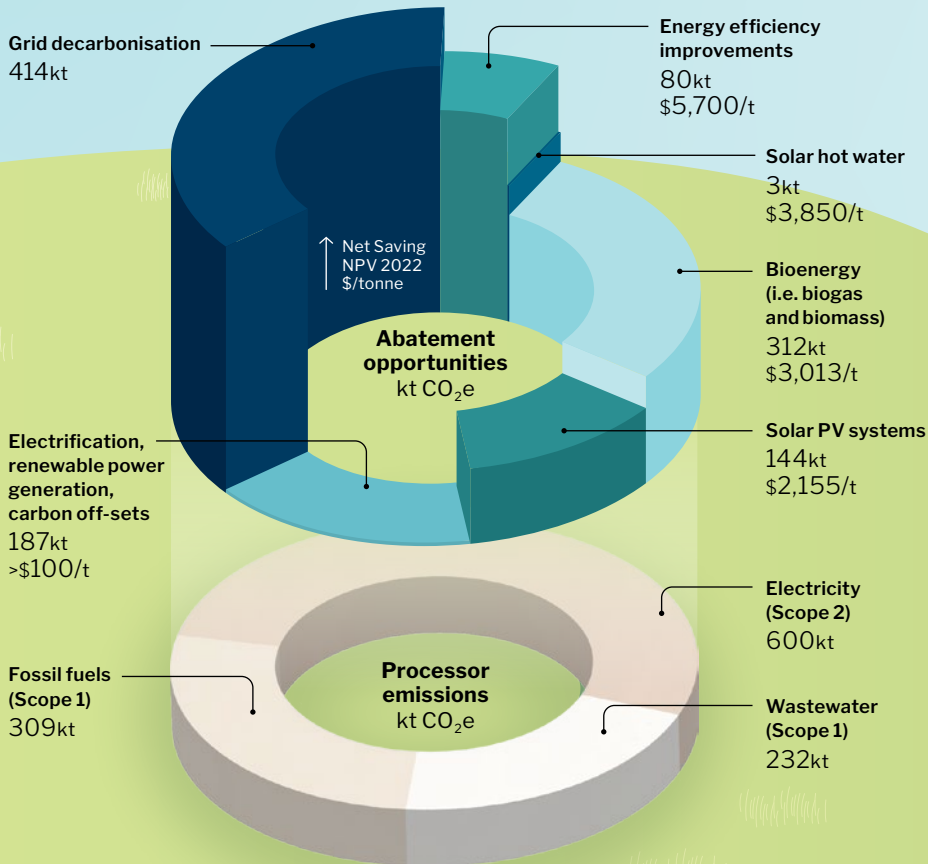
[Download the full report](#)

¹ Estimated minimum capital required for on-site projects
² Estimated NPV of all on-site projects with shadow carbon price of \$30/tonne

Decarbonising our sector

Increased electricity grid decarbonisation is greatly helping the transition to clean energy. Energy efficiency is the next most economical way to decarbonise, followed by solar PV and bioenergy systems – these are large scale opportunities. As the grid decarbonises, electrification (e.g. heat pumps) become more competitive with bioenergy and cogeneration. The selection of the next step in decarbonisation will vary for each plant due to electricity grid carbon intensity, availability of renewable fuel sources, and space for renewable energy generation plant.

Achieving Carbon Neutral 2030³



Recommendations to Australian red meat processors

The recommendations remain the same, with possibly some focus moving away from PPAs because the grid is predicted to decarbonise at a rate that will allow most plants to achieve the 43% target with the implementation of energy efficiency only.



Know your emissions

Develop systems to measure, monitor, and actively manage your emissions so you can track changes to your emissions profile.



Prioritise

Identify key first actions using AMPC tools and guides to determine which emissions you should address first.



Prepare for policy changes

Use a shadow carbon price to help weight projects with the greatest potential. Monitor changes in grid electricity emissions and renewable energy approaches.



Plan ahead

Develop a long-term plan to progressively reduce your emissions and prepare for policy changes, particularly when funding assistance becomes available.



Collaborate

Leverage the AMPC as a central coordinator for knowledge sharing, project development, funding and buying aggregation (eg. Power Purchase Agreements).

Abatement opportunities vary for plant sizes

Rendering typically occurs in large facilities, leading to greater gas or on-site coal consumption, and thus greater savings and abatement opportunities in fuel combustion and thermal efficiency.



Large Plant Gas⁴

24.7% of total emissions are from thermal energy



Small Plant Gas⁴

17% of total emissions are from thermal energy

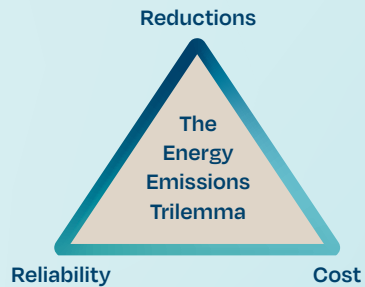
Wastewater is also a source of emissions for most plants, which can be reduced through anaerobic digestion for biogas use in boilers/cogeneration. Plants that do not capture and use biogas will need to find other decarbonisation approaches such as biomass boilers. All sites will have some residual emissions and will require some carbon offsets to achieve CN30.

³ Decarbonisation based on Table 38 in DCCEEW Australia's emissions projections-2022

⁴ Metrics based on typical small and large plan

Working towards our decarbonisation goals

AMPC understands the Energy Emissions **trilemma** and has projects underway to help our members.



Renewable electricity and electrification work program

- 1 Low cost solar PV assessment
- 2 Heat Pump and MVR assessment and design tools

Between 2021-2023, the sector's Solar PV development pipeline increased by 150% and this is enabling electrification opportunities.

[Solar PV opportunities →](#)

[AMPC's heat pump selection tool →](#)

Market imposed environmental disclosures

This work helps members understand how they should be preparing for increased environmental disclosure and collecting scope 3 emissions.

[Market-imposed environmental disclosures →](#)

[Sustainability grant — a win for industry →](#)

Bioenergy work program

- 1 Multifuel biomass boiler pilot
- 2 Anaerobic Co-digestion pilot
- 3 Emissions Reduction Funding guide

Since 2020, on-site coal use has been replaced by bioenergy as our sectors third largest source of energy.

[Biogas productivity approach could deliver huge benefits →](#)

[Biomass boiler proves viable fuel option for processors →](#)

[AMPC launches emissions reduction handbook →](#)

Refrigeration Energy Efficiency

Trial of an Industry 4.0 smart device to enable superior energy efficiency in industrial refrigeration, as a service.

[Refrigeration Energy Efficiency Solutions for Red Meat Processors →](#)

Hydrogen and clean fuels work program

- 1 Working with Hydrogen
- 2 Fuel efficiency in heavy transport

Trialing smart and new technologies to assess opportunities for H₂ fuel cells as an energy store and an efficient fuel.

[Renewable hydrogen cost-benefit analysis for Australian red meat processors →](#)

[AMPC investment in digital technologies helping to reduce heavy vehicle transport emissions →](#)

Energy, water and emissions benchmarking work program

Member participation represents 60% of total sector throughput. Available to all members who complete the Environmental Performance Review. It provides facility benchmarking and recommendations workshops.

[Energy and water benchmarking and efficiency culture change →](#)

Start measuring your energy, water and waste today.

Contact AMPC for help and advice on which technologies are right for you.

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