

Opportunities for the grape and wine sector

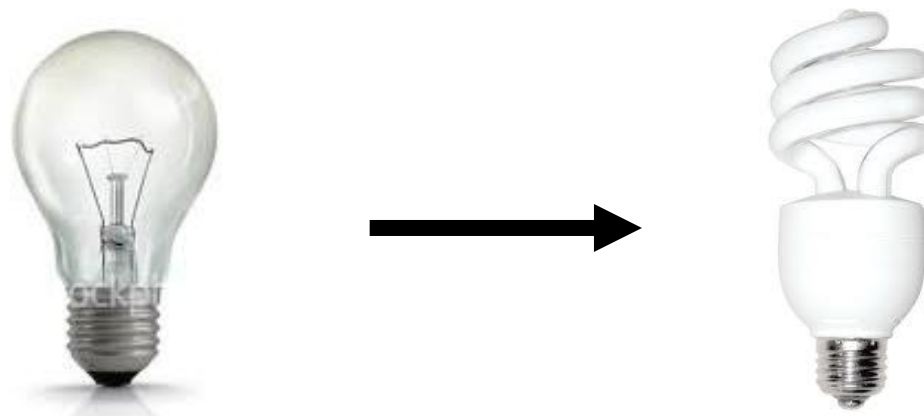


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opportunities
in a new climate

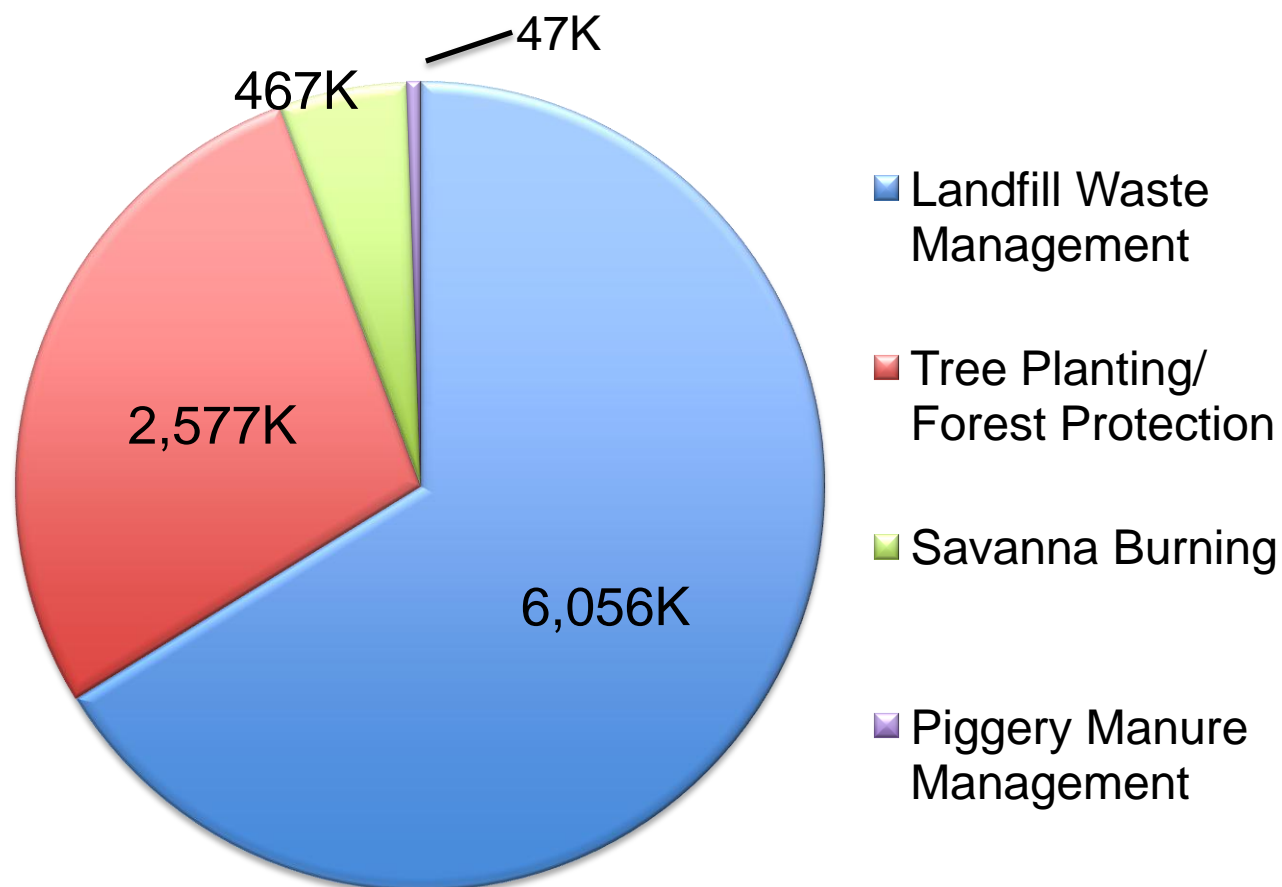


Australian Carbon Credit Units



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- ❖ 9 million ACCUs issued as of 24th October 2014
- ❖ 7 of 171 are agriculture projects and all of these are manure management

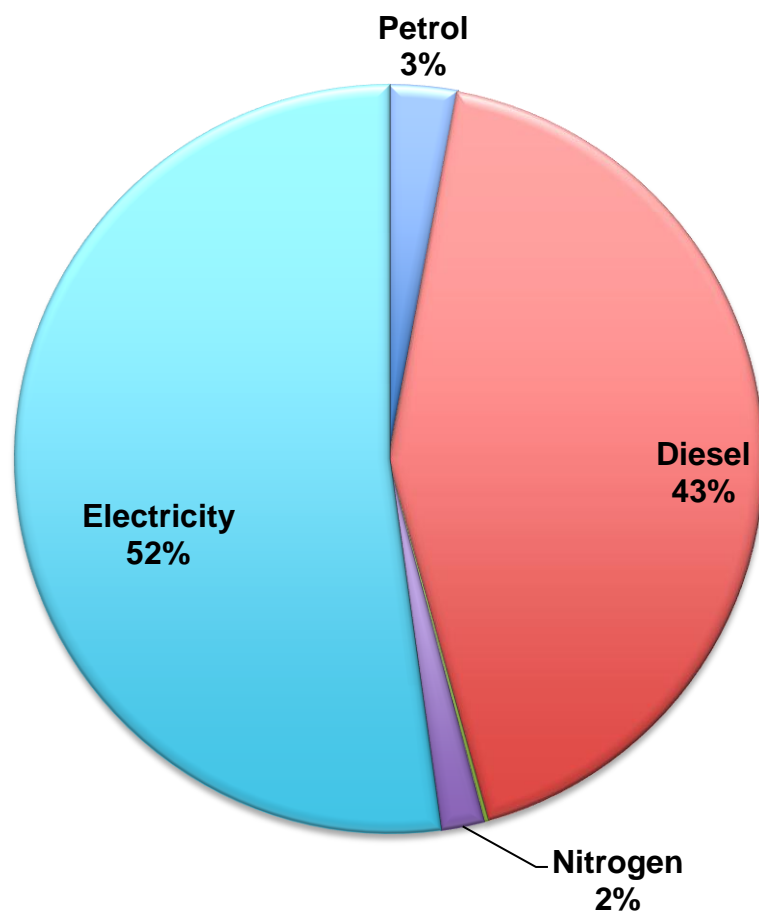


Emissions sources

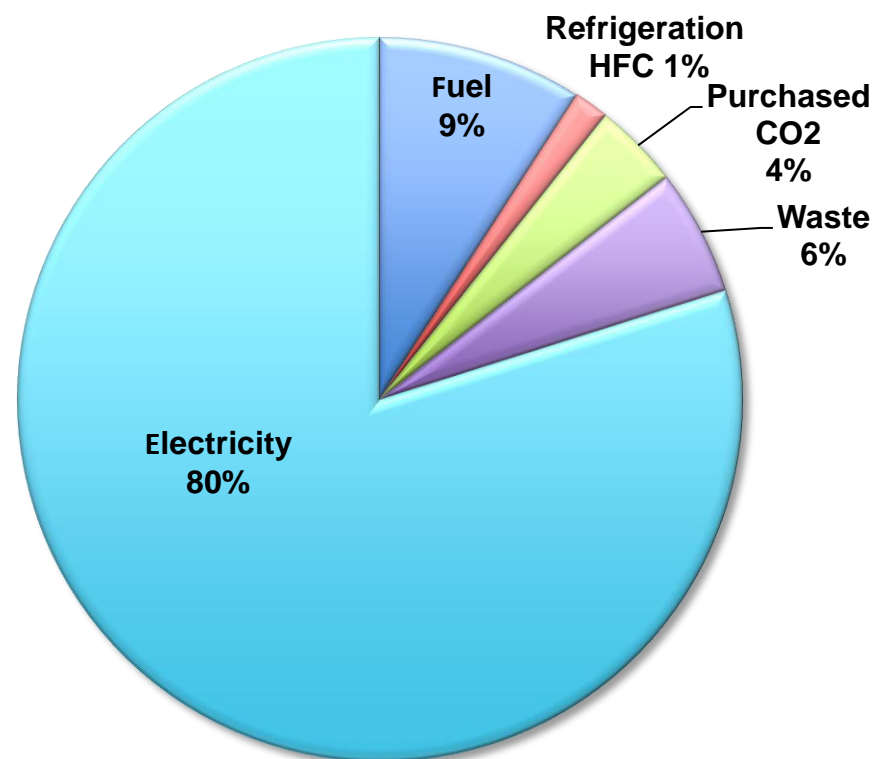


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Vineyard



Winery



N_2O in viticulture



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Measuring N₂O emissions & soil C



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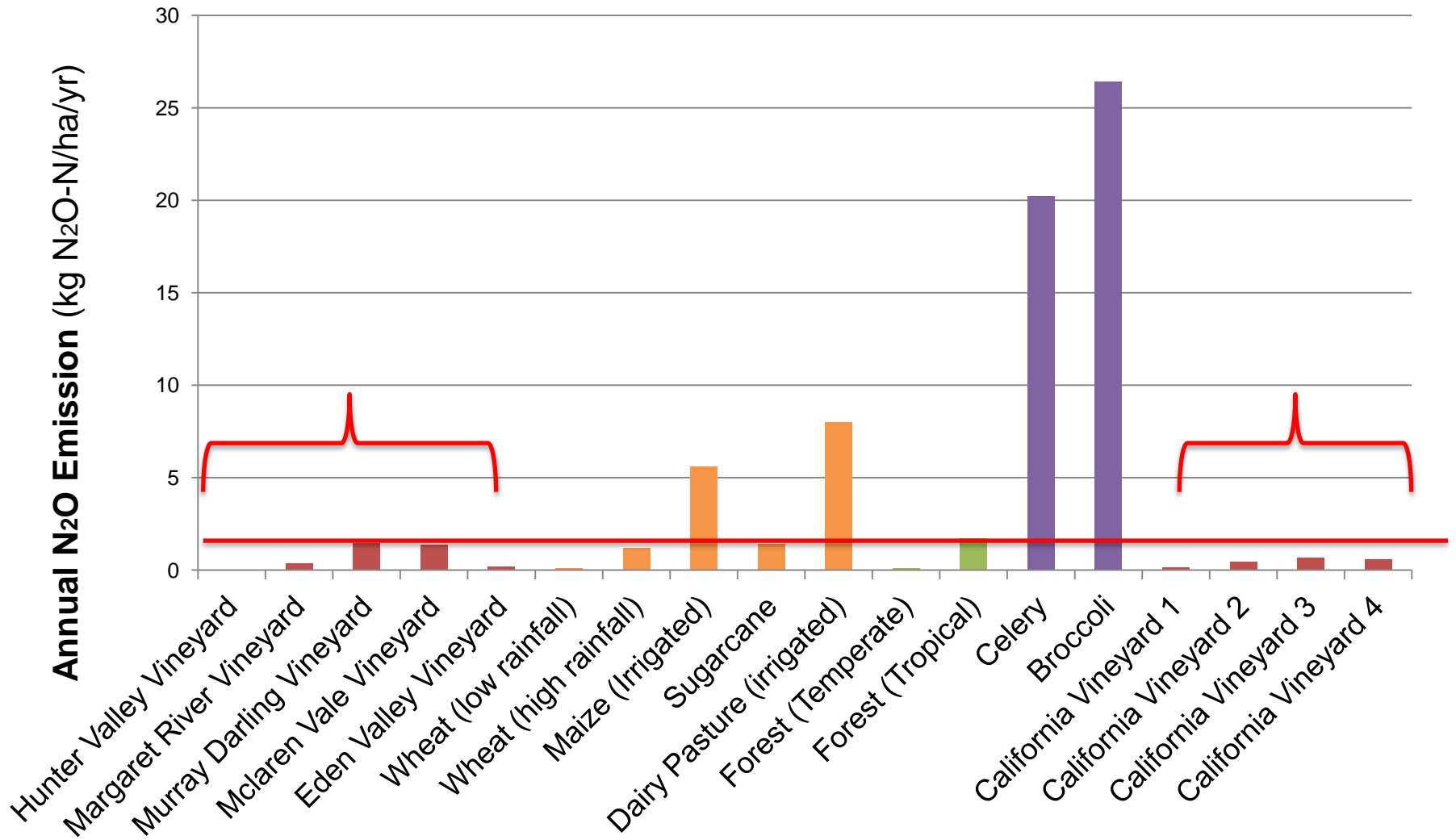


Buried in the soil



Analyses:
CH₄
CO₂
N₂O

Comparative crop N₂O emissions



CFI opportunities



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❖ Soil management



❖ Tree planting



Soil management



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Images: Luke Johnston

Tree planting



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Wrights Bay Vineyards, Mount Benson

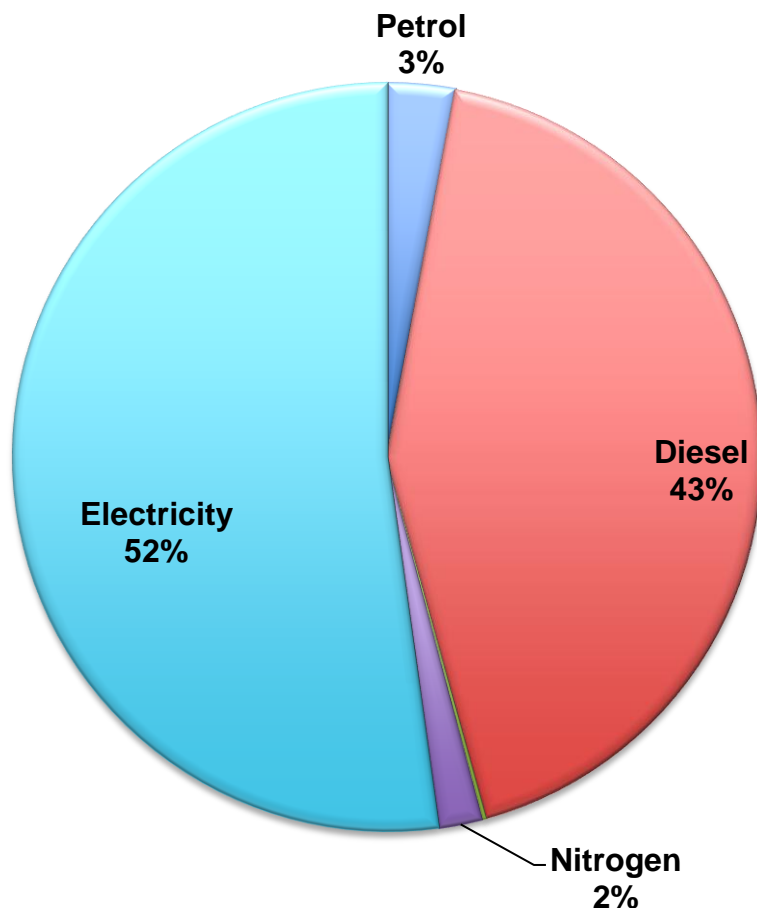
- ❖ What is a forest? Can a woodlot or windbreak be a forest?
 - 0.2 hectare
 - 20% canopy cover
 - \$5000/ha to establish
 - 100-300ha for viability. Rainfall dependent
 - 1 million investment
- ❖ Can be aggregated across blocks or sites
- ❖ 100 year permanence
- ❖ 25 years permanence (at 20% discount)

ERF opportunities for grape and wine

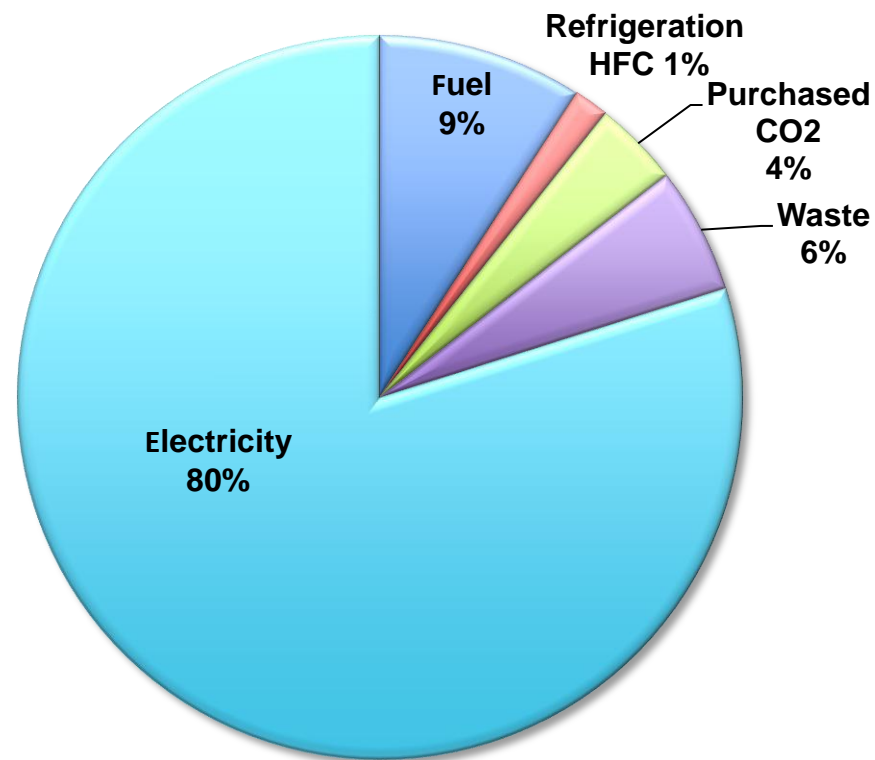


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Vineyard



Winery



Energy efficiency



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Opportunities typically can be found in all these areas:

Refrigeration, air conditioning and heat exchange systems

Waste heat recovery

Hot water generation and reticulation

Compressed air systems

Pumps and drives

Pipe design

Tank, cellar and office insulation

Lighting

Wastewater treatment

Electrical load balancing to reduce peak demand



New ERF methodologies



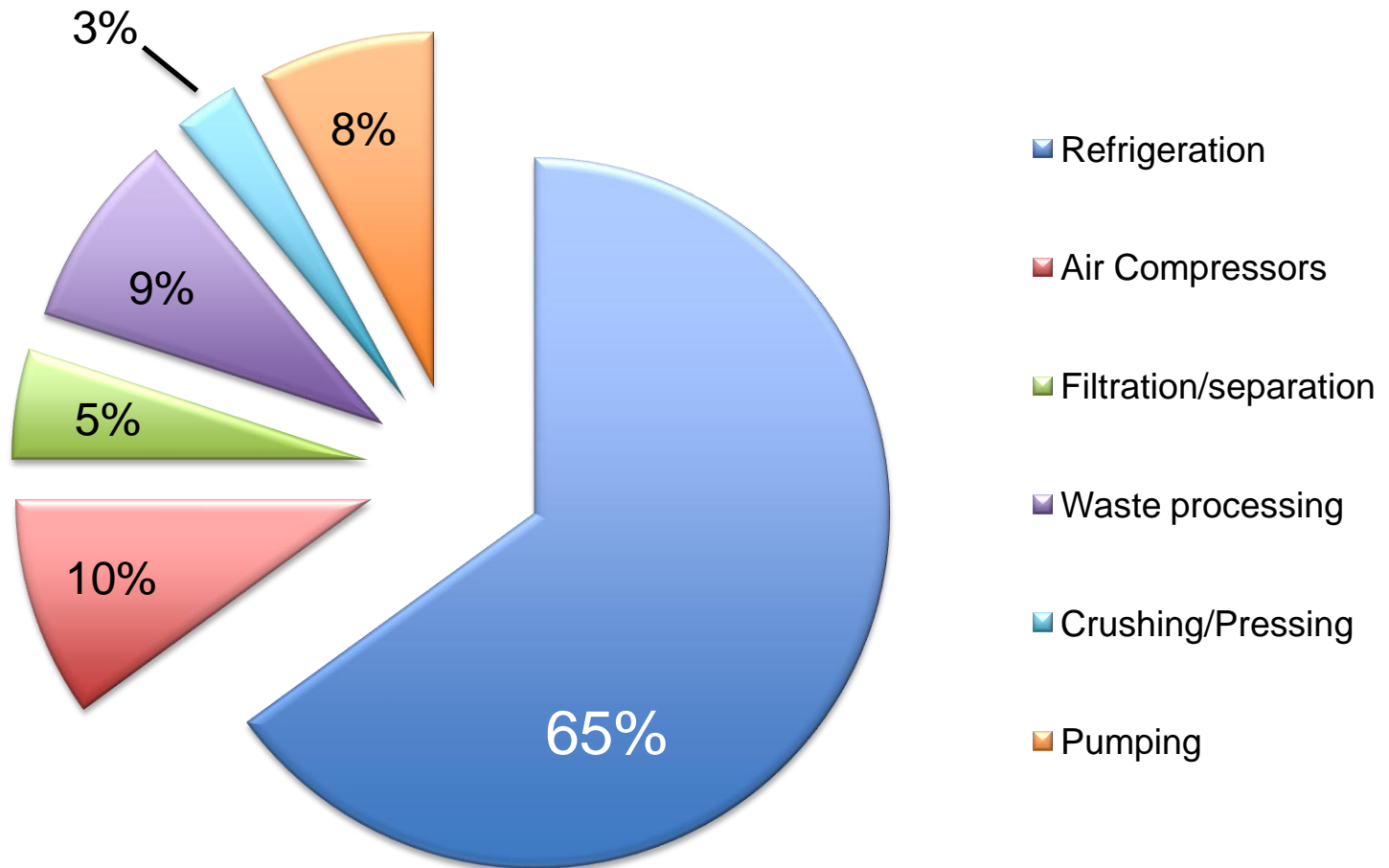
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- Alternative waste treatment
- Energy efficiency in commercial buildings and facilities
- Fertiliser use in irrigated cotton
- Industrial fuel and energy efficiency
- Carbon sequestration in soil using modelled abatement estimates
- Wastewater treatment

Power use - Winery



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~50% of the refrigeration component is consumed by cold stabilisation

Tartrate instability



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**“The deposit is harmless,
but the customers
reaction might not
be”potassium
hydrogen tartrate.....**

Bryce Rankine, 1989



Fuel use



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2009:
World's first 100%
carbon neutral
wine range



Acknowledgments



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http://www.awri.com.au/industry_support/new_climate/

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