

# Sustainability at Yealands Estate

[www.yealands.co.nz](http://www.yealands.co.nz)



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## The currency of Co<sub>2</sub>e



If you own this you are generating credits at  
\$25 per tonne of Co<sub>2</sub>e

If you own this every tonne of Co<sub>2</sub>e cost  
you \$25 per tonne

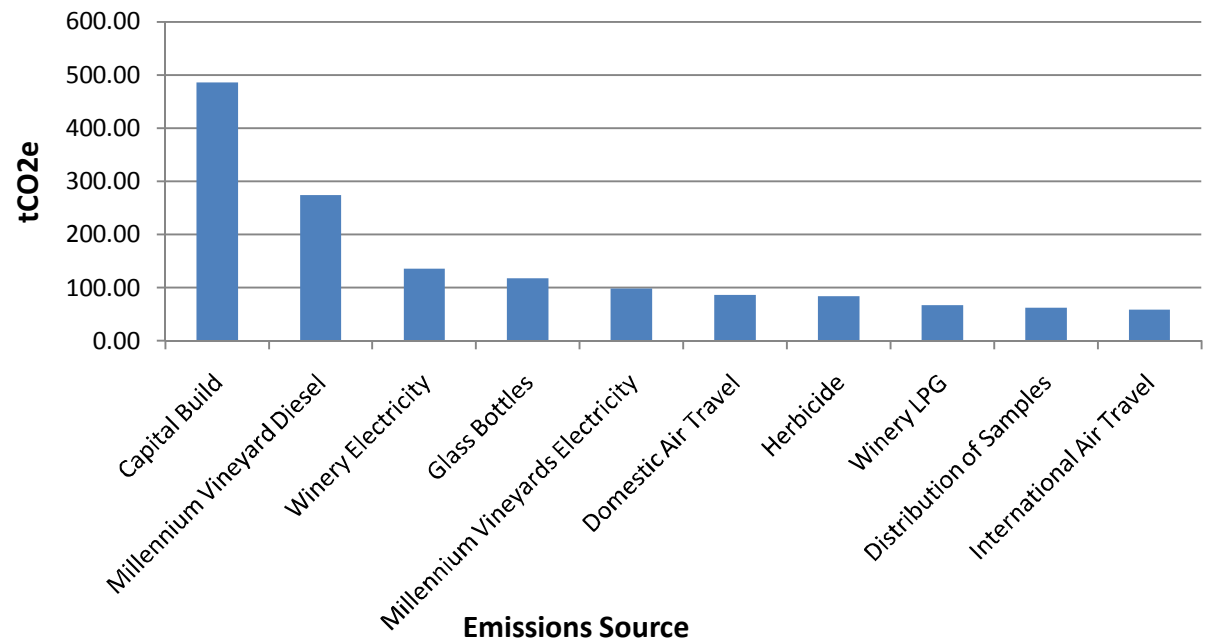


# Measuring our Greenhouse Gas Emissions

So what do we measure?

Diesel  
 Petrol  
 Electricity  
 LPG  
 Air travel  
 Helicopter Fuel  
 Waste  
 Fertilizer  
 Packaging including  
 Transport  
 Glass  
 Labels

**Top 10 GHG emissions sources**



## CarboNZero Management Process

- **Manage** (reduce) your GHG emissions
- Continual Improvement – Its all about being better than last year - and next year being even better. Harder to achieve when CarbonZero from inception!
- **Mitigate** (offset) your remaining unavoidable GHG emissions
- Some examples of how much off setting our emissions costs.
  - 1 Carbon credit = offsetting 1 tonne of CO<sub>2</sub>e = \$25 approx
  - Example, 1 tank of petrol = 60 liters = 0.138 T Co<sub>2</sub>e = \$3.44
  - Flights from Auckland to London = 18340 km's = 3.32t Co<sub>2</sub>e = \$95.62
- There are currently 3 types of credits that can be purchased:
  - Regeneration of native forest's,
  - Generation by wind farm
  - Generation by Landfill gas

## CarboNZero – Why?

- Independent verification (audit) Deloitte
  - no omissions
  - falsifications
- Market/sell your carbon neutral status
  - On top of the costs to offset our carbon foot print there is a 0.25% royalty fee on all product that has the CarboNZero logo. This fee has a minimum of \$5000 and a maximum of \$100,000
- Carbon Neutral is basically a self imposed tax so why are we doing it?
  - Gives us the point of difference,
  - Makes us stand out from the crowd,
  - It gives us credibility in our endeavor to be the most sustainable winery in the World.
  - It's the right thing to do!

# Sustainability – what does it mean?

## Sustainability

Wikipedia

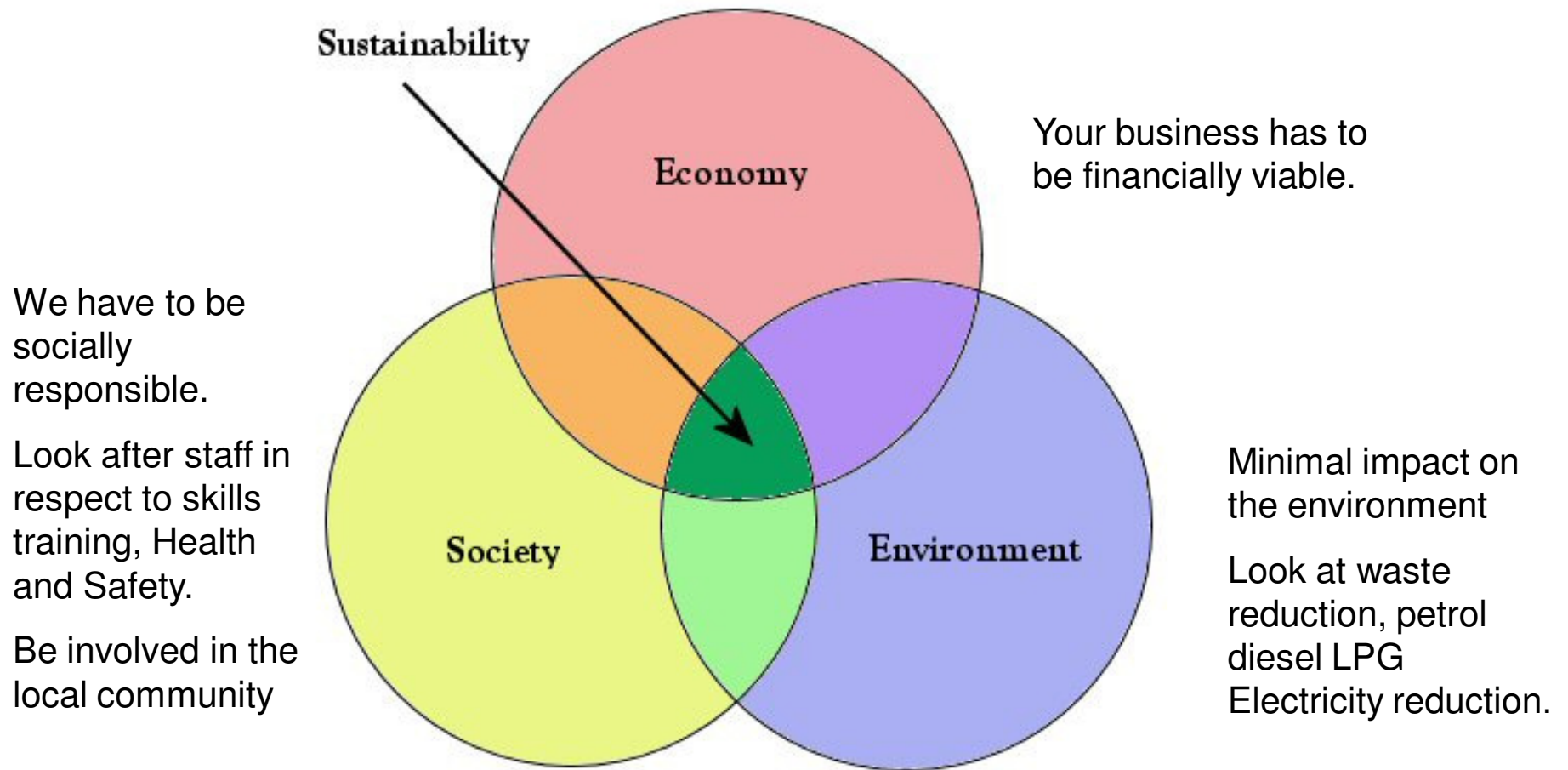
Is an attempt to provide the best outcomes for the human and natural environments both now and into the indefinite future.

## Definition of sustainable development

The world business council for sustainable development.

“Meeting the needs of the present without compromising the ability of future generations to meet their own needs”

## Sustainability – what does it mean?





## Sustainability – what does it mean?

- Sustainability is about **Continual Improvement** - doing more for less
- Its about using Technology and Innovation to continually improve.
- It's about the business, the environment and the community
- There is no finishing post or end.

## Sustainability – in a business context

### Past Focus

- Maximising the return to the share holder
- Making the assets sweat
- Return on investment
- Internal rate of return
- Labour units

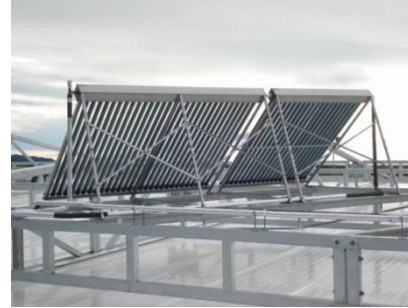


### Sustainability Focus

- Avoid wastage
- Leadership
- Teamwork
- Communities
- Integrity
- Using Less to achieve more

## Sustainability at Yealands

- Solar Panels - Provides hot water for estate amenities
- Insulated indoor Tank Hall – Reducing refrigeration costs
- Heat Recovery from de-superheater – Recovering heat from refrigeration to heat hot water for the winery



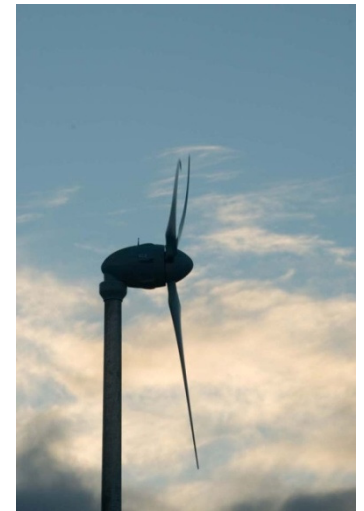
- Heat Recovery from Oil Cooler – Heating warm glycol for tanks
- Insulated Pipelines – reducing heat loss and promoting efficiency
- Use of Variable Speed Drives – Less energy consumed
- Efficient Evaporative Condenser design

## Sustainability at Yealands

- Night time Cooling – Use of electricity at night, reducing peak demands
- Use of cold air – pull in from outside to aid refrigeration
- Energy Efficiency Lighting Design
- 2 x Wind turbines with more to come



- Motion sensors in small rooms for lighting and air conditioning
- The use of low Volatile Organic Compound paints
- Natural insulation materials e.g. wool
- Recycling of Construction Waste – during construction recycles 75% of waste





## Future Sustainability Projects

- Projects currently being looked at:
- Baby Doll Sheep
- Co2 harvesting
- The use of Vine pruning's to generate hot water and refrigeration!
- Methane from Marc
- Wind Turbines

