No. 2 Worldwide in Wine & Spirits
Pernod Ricard Winemakers

Five Global Wine Affiliates

USA
Kenwood Vineyards

Spain
Campo Viejo
No. 1 Rioja brand worldwide

Argentina
Graffigna

Australia
Jacob’s Creek
St Hugo

New Zealand
Brancott Estate, Stoneleigh
Electricity Strategy

SA Electricity Market

Environmental Ambitions

-20% electricity
-30% CO2

Electricity Strategy

Use
- Energy reduction strategies
- Plant efficiency measures
- Load shifting to reduce peak demand and access off peak pricing

Pricing
- Intelligence of market and procurement options
- Non traditional electricity purchasing options
- Tariff charges

Own generation
- Own generation e.g. Solar

Pernod Ricard Winemakers
Open Up Our World of Wines
## Project Benefits and Drivers

### Overall project benefits

<table>
<thead>
<tr>
<th><strong>Contributing towards 2020 Environmental Objectives</strong></th>
<th><strong>Social Responsibility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-20% reduction in energy/CO2</td>
<td>Reducing impact on community during grid stress</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Fixed pricing on 20% supply</strong></th>
<th><strong>Significant long term savings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity cost in SA unstable and increasing</td>
<td>Energy Savings and LGC income</td>
</tr>
</tbody>
</table>

### Financials driven by 4 key items

<table>
<thead>
<tr>
<th><strong>Lease costs:</strong> (Y1-7)</th>
<th><strong>Electricity savings:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Operating lease repayments for the first 7yrs</td>
<td>-10% reduction in operational electricity spend</td>
</tr>
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<table>
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<tr>
<th><strong>LGCs: (Large Generator Certificates)</strong></th>
<th><strong>Other income:</strong></th>
</tr>
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<tbody>
<tr>
<td></td>
<td>- Export into grid</td>
</tr>
<tr>
<td></td>
<td>- Demand kVA Savings</td>
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Solar Project Scope and Site Considerations

Usage profile

- Very seasonally skewed
- Highest usage in summer
- 20 GW p.a.
- Peak Demand 4-5 MW

Site Considerations

- Two large winery sites
- Large area of roof space available
- Fractured site with multiple supplies and switch boards
- Design needs to match location to load
## The Journey

<table>
<thead>
<tr>
<th>Year</th>
<th>Events</th>
</tr>
</thead>
</table>
| 2015 | - Discussions with The Solar Project  
      | - Approval of 100 kW pilot system |
| 2016 | - Installation of pilot and test of financial justification |
| 2017 | - Scope and tender of 3 MW project  
      | - Successful tender by AGL |
| 2018 | - Detailed design  
      | - Installation begins |
| 2019 | - Installation due for completion by mid year |
System Design

- 3 MW of onsite solar generation to be installed progressively over 18 months across the Barossa wineries
- System sized to consumption for 16 individual switch boards to minimise export
- Export can be shared via “virtual” ring main
- Base Case proposition is largely self-supporting for 7 years with long term financial benefits
- Construction planed for completion by mid 2019

<table>
<thead>
<tr>
<th>System</th>
<th>System size</th>
<th>Annual Generation</th>
<th>% of PRW Energy Use</th>
<th>Number of Panels</th>
<th>CO2 Reduction (Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>~3 MW</td>
<td>4,000 MWH</td>
<td>~20%</td>
<td>~10,000</td>
<td>~2,300</td>
</tr>
</tbody>
</table>
**Design Considerations**

- Maximise the roof space available
- Minimise run distance
- Staff car park shelters to supply waste water processing
- The surface area is equivalent to the playing surface of Adelaide Oval
100% RENEWABLE

Thank You