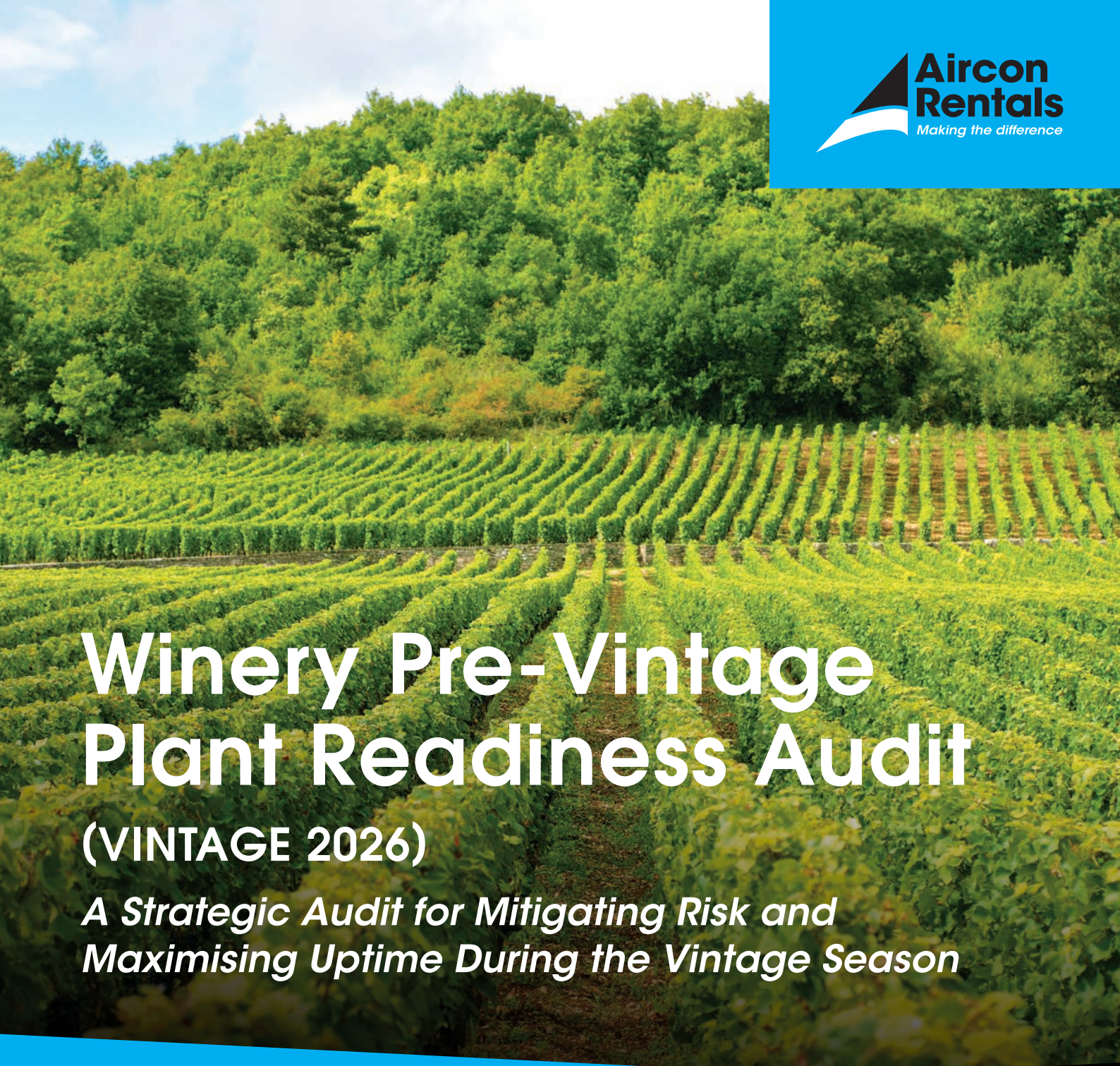

Aircon Rentals
Making the difference

Winery Pre-Vintage Plant Readiness Audit

(VINTAGE 2026)

A Strategic Audit for Mitigating Risk and Maximising Uptime During the Vintage Season

This audit is designed to move beyond basic maintenance checks into a comprehensive review of past performance, future risks, and strategic readiness. It ensures all critical HVAC, refrigeration, and power systems are prepared for the peak demands of the vintage season, mitigating the risk of costly downtime and product loss.

Phase 1: Strategic Review & Performance Analysis

Action: October 2025 | Focus on analysing data from the previous vintage to inform a data-driven plan for the upcoming season

A. Performance & Efficiency Audit (Data Review)

- [ ] **Review SCADA/Temperature Logs:** Have all temperature logs from Vintage 2025 been reviewed for deviations, anomalies, or signs of struggling equipment?
- [ ] **Analyse Pull-Down Times:** Were multi-tank chilling and cold-soak temperatures achieved within expected timeframes?
- [ ] **Review Energy Consumption Data:** Correlate kWh usage with cooling demand. Were there unexplained energy spikes that could indicate system inefficiency?
- [ ] **Analyse Maintenance Records:** Were there recurring faults or unscheduled repairs during the last vintage?
- [ ] **Verify Post-Vintage Servicing:** Confirm that all scheduled end-of-season servicing for chillers, refrigeration, and heating systems was completed and logged.
- [ ] **Benchmark Energy Efficiency:** Compare Vintage 2025 energy use vs. industry averages to identify potential improvement opportunities.

B. Capacity & Load Analysis (System Limits)

- [ ] **Identify Peak Load Event:** What was the single highest-demand moment during the 2025 vintage (e.g., date, time, and ambient temperature)?
- [ ] **Calculate Peak Capacity Utilisation:** At that moment, was the system's load greater than 85% of its rated total capacity? (Note: Consistent operation above 85% indicates a high risk of failure under heatwave conditions).

C. Strategic & Resource Planning (Action Plan)

- [ ] **Finalise Maintenance & Utilities Budget:** Establish a clear budget for servicing, spare parts, and peak electricity costs, including contingency for emergency hire.
- [ ] **Book & Confirm Specialist Contractors (URGENT):** Secure service dates with refrigeration mechanics, electricians (thermographic testing), and boiler technicians. Confirm after-hours call-out procedures.
- [ ] **Audit & Order Critical Spares:** Review stock and place orders for long-lead items (pumps, VSDs, probes, seals, refrigerant, glycol).
- [ ] **Consult with Electricity Provider:** Confirm any planned grid outages, demand response programs, or peak demand tariffs.

Phase 2: Risk Assessment & Contingency Planning

Action: November 2025 | Future-proofing the operation by modelling potential challenges and formalising emergency response

A. Future Load & Risk Forecasting

- [ ] **Forecast 2026 Tonnage:** Will projected intake increase cooling demand vs. 2025?
- [ ] **Assess Capital Expenditure Plans:** Will new tanks/equipment add to system load?
- [ ] **Model a "Worst-Case Day":** Simulate a largest harvest day coinciding with a multi-day heatwave (40°C+). Does reserve capacity exist?
- [ ] **Review Insurance Coverage:** Is policy adequate for spoilage from cooling/power failure? Document financial exposure by varietal/product tier.

B. Redundancy & Failure Point Analysis

- [ ] **Identify Single Points of Failure:** Map critical components (e.g., main glycol pump). Which failure would cause catastrophic impact?
- [ ] **Evaluate N+1 Redundancy:** Does the facility operate with N+1 backup for chillers, pumps, and power? Document Critical Load Mapping: Define systems that must remain powered in an outage.
- [ ] **Confirm Fuel Storage Readiness:** Ensure 2,000–10,000L tanks are available or pre-arranged for generators.

C. Emergency Hire & Contingency Plan

- [ ] **Formal Plan Documentation:** Is there a documented Cooling & Power Contingency Plan accessible to key personnel?
- [ ] **Pre-vet Emergency Hire Suppliers:** Have accounts been set up with emergency rental suppliers (e.g., Aircon Rentals 24/7 Hotline: 1800 626 996)?
- [ ] **Logistics & Site Prep:** Is a temporary chiller/generator site pre-designated, with connections documented and accessible?
- [ ] **Supplier Delivery Routes:** Confirm mapped delivery routes and site access points for rapid equipment deployment.
- [ ] **Team & Communication Plan:** Has the plan been reviewed with cellar and management staff? Who calls, who authorises, who signs off?

Phase 3: Technical Servicing & Operational Readiness

Action: Nov 2025 – Jan 2026 | Hands-on execution of the service plan and final validation before harvest

A. Technical Servicing (by Qualified Technicians)

REFRIGERATION & GLYCOL SYSTEMS

- **Refrigerant Integrity:** Verify correct refrigerant charge and conduct leak checks.
- **Compressor Health:** Check oil levels,acidity, and listen for unusual noises.
- **Glycol Quality Test:** Test glycol concentration and pH for corrosion.
- **Pumps & Strainers:** Inspect seals, clean inline filters/strainers.
- **Valves & Flow:** Test manual/solenoid valves for smooth operation.
- **Must Chiller / Heat Exchanger:** Full service and deep clean for optimal transfer.

ELECTRICAL & POWER SYSTEMS

- **Thermal Imaging Scan**: Check main switchboards for hotspots.
- **Generator & ATS Test:** Simulate outage, run generator for 1 hour under vintage load.
- **Fuel & Fluids:** Confirm clean diesel supply, engine oil, and coolant levels.
- **Motors & Drives:** Inspect wiring; clean and test VSD cooling fans.

HVAC & SAFETY

- **Boilers:** Service burners, ignition, flue; check water treatment & relief valves.
- **Barrel Hall Climate Control:** Clean units, drains, calibrate temperature & humidity controllers, inspect door seals.
- **CO_2 Safety Systems:** Test exhaust fans and calibrate fixed CO_2 alarms.

B. Final Readiness Validation

- **Consolidate System Documentation:** Compile manuals into a "Vintage Plant Bible."
- **Staff Training:** Conduct refresher sessions on equipment and emergency procedures (include seasonal hires).
- **Emergency Drill:** Run a mock power or cooling outage to validate the contingency plan and team readiness.
- **CO_2 Safety Drill**: Conduct a safety drill to test response to high CO_2 events in fermentation halls.

Solidify Your Contingency Plan

For a complimentary, no-obligation review of your audit results and contingency plan, please contact our team.

Free Call 1800 626 996 | aircon.com.au
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