

SHIP TO SHORE POWER CONNECTION POLICY

FOR CONNECTION TO RPAYC AC POWER SUPPLY

The Royal Prince Alfred Yacht Club's marina provides power for use on your vessel with a connection to the low voltage electrical supply which is connected to a copper-based marina protective earthing system. All vessels and appliances connecting to the marina shore power system are connected at the owner's responsibility. Vessel owners must ensure their vessel and shore power connection comply with AS/NZS 3004.2, as amended or superseded from time to time, and other applicable electrical requirements.

Supply

Limited 3 phase supply connections exist and may be available upon application, otherwise the use of 3 phase power outlets is prohibited.

Annual 'Test and Tag' Shore Power Lead

Test and Tag certification is required every 12 months. The certification sticker must always be current and signed by a licensed electrical contractor or the Club's certified staff. The Club provides RPAYC Facility Holders (Members) an **annual complimentary Shore Power Lead test** for the lead connected to the AC power supply.

Anodes & Galvanic Isolation

The Club recommends that vessel owners seek professional advice regarding the suitability of a compliant galvanic isolator or onboard isolation transformer for their vessel. Vessel owners are responsible for the condition and effectiveness of their sacrificial anodes, galvanic isolation units and isolation transformers, and for ensuring that modifications to the vessel's electrical installation do not compromise these protective systems.

PRIOR TO CONNECTING TO THE CLUB'S SHORE POWER

- 1) The marina shore power connection located at the service pedestals is wired in accordance with AS/NZS 3004.1 and no isolation transformer is fitted to the shore-based service.
- 2) The power supply is 240V AC 50 Hz, combined RCD and MCB residual current and overload protection is fitted and regularly tested to ensure operation. Individual current overload ratings may vary.
- 3) All vessels connecting to the marina shore power system must comply with AS/NZS 3004.2, and it is the responsibility of the vessel owner/operator to ensure ongoing compliance.
- 4) Boat owners connecting vessels and appliances to the marina shore power system do so entirely at their own risk and should seek professional advice to ensure their connection complies with the standard AS/NZS 3004.2.
- 5) RPAYC will not be held responsible for power outages, mains surges or voltage fluctuations.
- 6) It is the responsibility of vessel owners/ operators to ensure that the shore power lead is tagged in accordance with standards, suitable for the outlet type, supported to keep it clear of the seawater, does not present a trip or other hazard and is removed completely when not in use and switched off at the outlet.
- 7) Persons are advised not to enter the water in the vicinity of vessels connected to the marina shore power or vessels generating power onboard either using generator or other means.

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MINIMUM CONNECTION REQUIREMENTS

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All leads, plugs and safety protection circuits require inspection every month, it is the responsibility of the vessel owner to inspect the condition of the cables, leads and safety protection.

It's the responsibility of the vessel owner to maintain the power lead:

- 1) Only **one (1)** shore power lead is to be connected to any vessel and the use of double adaptors and power boards is prohibited.
- 2) The lead shall be suitable for the marine environment complying with AS/NZS 3191
- 3) The flexible lead shall be one length, a suitable length (e.g. cable length is not too short/long).
- 4) The lead shall be heavy duty 3 core (including earthing conductor) sheathed type
- 5) the **lead must match the supply** (e.g. 15 amp outlet/15 amp lead)
- 6) shore power lead must not exceed max. length applicable to its conductor size and supply rating and must not exceed 25 metres.
- 7) If the shore power bollard has a screw point terminal the lead must be a screw point shroud fitting
- 8) The lead plug and socket ends must be checked for corrosion on all exposed terminals
- 9) All cable ends must be waterproof and free of any damage
- 10) All components of the lead shall be in good condition e.g.;
 - no corrosion
 - no exposed conductors
 - no UV damage
 - no moisture in the plug
 - no damage to the lead sheath etc.
- 11) Plug needs to be removed and checked regularly
 - clean out any contaminants
 - check for corrosion or heat damage
 - test RCD switch
 - report any signs of damage at the connection point to the Club immediately
- 12) Shore power leads must not be used while coiled or wrapped around a pedestal, tap fitting, cleat or other metallic structure. Excess lead must be safely managed onboard.
- 13) Leads must not be placed across the marina and/or fingers on the marina as to create a trip hazard
- 14) Leads are not to come into contact with water
- 15) Leads are to be removed from the dock/pedestal when not in use
- 16) Household leads are strictly prohibited

CLUB AUTHORITY TO DISCONNECT

RPAYC reserves the right to disconnect a vessel from shore power where:

- the shore power lead or connection does not comply with this policy
- equipment is damaged, deteriorated or considered unsafe;
- the connection may present a hazard to persons, vessels or marina infrastructure;
- abnormal electrical activity is identified; or
- the Club reasonably considers further investigation necessary.

Where appropriate, the Club may require inspection, testing or written verification from a suitably qualified electrical contractor before reconnection to the marina shore power supply is permitted.

SUSPECTED ELECTROLYSIS, STRAY CURRENT OR UNUSUAL CORROSION

Where a vessel owner suspects electrolysis, stray electrical current or another electrical issue including unusually rapid anode deterioration, unexplained corrosion or deterioration of underwater metals the following procedure applies:

1. **Arrange inspection of the vessel**

The vessel owner should first engage an appropriately licensed electrician experienced in marine electrical systems to inspect the vessel, including its electrical installation, shore power connection, earthing, galvanic isolation and other relevant onboard systems.

2. **Engage a specialist where required**

Where further investigation is recommended or the cause cannot be readily identified, the vessel owner should engage a specialist marine electrical consultant, such as *Logix Consulting*, to undertake vessel-specific stray current, galvanic isolation and cathodic protection testing. *Logix* has confirmed that individual vessel owners may engage them directly for comprehensive testing.

3. **Provide evidence of a suspected marina-related issue**

Where the owner's licensed electrician or specialist provides written findings indicating that the suspected electrolysis, stray current or electrical issue may be attributable to the marina electrical infrastructure, the owner must provide the Club with a copy of the written report, together with a summary of the concern and any relevant supporting information.

4. **Club investigation**

Upon receipt of information reasonably indicating a potential marina-related issue, the Club will review the findings and, where appropriate, engage a suitably qualified electrician or specialist to undertake an independent investigation of the relevant marina infrastructure.

5. **Responsibility for investigation costs**

Where the Club's investigation identifies a defect or issue attributable to the Club's marina electrical infrastructure, the Club will be responsible for the reasonable costs of its investigation and any necessary rectification of Club infrastructure.

Where the investigation determines that the reported issue is not attributable to the Club's marina electrical infrastructure, the vessel owner will be responsible for the costs incurred by the Club in undertaking the investigation.

6. **Immediate safety concerns**

Regardless of the above process, any visible damage, overheating, electrical fault or other immediate safety concern involving a Club shore power pedestal, outlet or marina electrical infrastructure should be reported to the Waterfront team immediately and the affected connection should not be used until assessed.

ACCEPTANCE OF SHORE POWER CONNECTION

By accepting a RPAYC Facility Agreement for a marina berth, hardstand or other facility where shore power is provided, the vessel owner agrees to comply with this Shore Power Connection Policy and any reasonable direction issued by the Club concerning electrical safety or shore power use