

Appendix C

Fire safety and inverter enclosure information

This appendix defines the inverter enclosure and associated fire safety requirements for Units A, B, C and D at Dart Marine Park. It includes location illustrations and the complete fire risk assessment prepared by Totnes Fire Protection & Signs.

The enclosure arrangement shall be developed and priced separately for each unit. A single cabinet size, mounting arrangement or construction is not prescribed across all four buildings. Tenderers shall demonstrate that their proposed enclosures meet the fire assessment requirements and are compatible with their proposed inverters.

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Related tender information

Read with Appendix B for the general arrangements, equipment locations, cable routes and proposed electrical configurations. Appendix A contains the structural reports and B/D cantilever exclusions. The illustrations in this appendix identify locations only; enclosure construction, dimensions and fire performance are governed by the requirements below.

Source register

Fire assessment: Totnes Fire Protection & Signs, supplied three-page assessment; no date or revision printed.

Location illustrations: extracts from the supplied Unit A, B, C and D AC and Solar Plan sheets, reproduced in Appendix B.

Plan extracts and location illustrations are taken from the Glo Renewables design information supplied to TRESOC. They identify indicative locations; enclosure requirements are specified in this appendix.

Issue: DMP-RFT-APP-C, revision P02, 21 October 2026.

C1 Unit specific enclosure requirements

Provide a secure enclosure with a minimum 60-minute fire rating at each unit, as required by the attached fire assessment. The physical installation and constraints differ between buildings.

Unit	Location and constraints	Enclosure provision
A	Below the external steel access staircase and gantry, forming part of an escape route. See the plan extract on page 3 and Appendix B.	Develop the enclosure arrangement for the inverter configuration offered. Include appropriate base/plinth or supports, secure access and manufacturer clearances. Door opening, ventilation and maintenance access shall not obstruct the escape route.
B	Rear of the building within a secured area. Appendix B shows an external wall position in the rear courtyard; see page 3.	Provide an enclosure and supports suited to this external location and the inverter offered. Include safe maintenance access, weather protection and suitable ventilation. The secured courtyard does not remove the FRA enclosure requirement.
C	Storage-side location beneath the external stair/walkway area. See the annotated location photograph on page 4 and Appendix B.	Provide for two independent inverter systems. Propose either separate enclosures or a shared enclosure designed for both systems. Include electrical segregation, manufacturer clearances, cooling, base/support and safe access. Maintain the escape route and access to adjacent storage.
D	Rear external position beside the storage area. See the annotated location photograph on page 4 and Appendix B.	Provide an enclosure and supports suited to the external position and inverter offered. Maintain the oil-tank separation identified in Appendix B. Relocate the cigarette container to at least 1.5 m from the inverter cabinet, as required by the FRA. Include safe maintenance access.

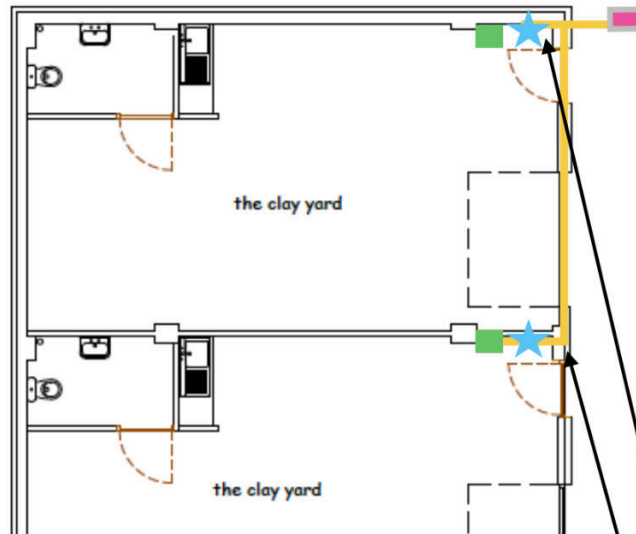
Common fire safety controls

Secure and support cabling; provide warning, identification and access signage; supply equipment location and access information for the fire service and relevant contact information for tenants. Include remote monitoring and an inspection/testing programme as set out in the FRA. Keep access to equipment and escape routes clear.

These requirements supplement the full FRA. Any proposed change to the stated locations or fire protection approach shall be clearly identified as a departure in the tender submission and shall not be implemented without TRESOC agreement.

C2 Proposed locations for Units A and B

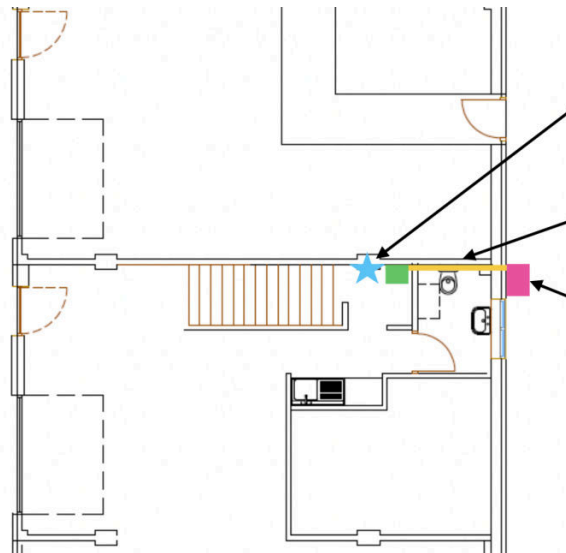
Unit A external staircase location



Plan extract: the pink marker at the upper right identifies the proposed inverter/enclosure position. The location is beneath the external access staircase identified in the FRA. The extract does not prescribe the cabinet size, inverter count or electrical connection arrangement.

Location extract from Appendix B source: Unit A - AC and Solar Plan (V2) (1).pdf

Unit B rear courtyard location



Plan extract: the pink marker outside the building wall identifies the proposed inverter/enclosure position in the secured rear area. Provide an enclosure and support arrangement compatible with this location and the proposed inverter.

Location extract from Appendix B source: Unit B - AC and Solar Plan (1).pdf

C2 Proposed locations for Units C and D

Unit C storage side location



Existing annotated photograph: the orange outline identifies the proposed enclosure area beside the storage wall, beneath the external walkway/stair arrangement. The outline illustrates location only and does not prescribe dimensions or construction.

Location extract from Appendix B source: Unit C - AC and Solar Plan (V2) (1).pdf

Unit D rear external location



Existing annotated photograph: the pink marker identifies the proposed inverter position. The white/red annotations are retained for location context. Provide the enclosure required by this appendix and maintain the separations set out in C1.

Location extract from Appendix B source: Unit D - AC and Solar Plan (V2) (1).pdf

C3 Technical requirements and tender submissions

Complete enclosure fire performance

Demonstrate the minimum 60-minute fire rating required by the FRA for the proposed enclosure arrangement. Identify the performance criteria, test/classification or assessment evidence and its field of application. Evidence shall address the complete installed construction, including doors, seals, joints, base, roof, vents, fixings and cable penetrations. A material surface-spread test alone is not evidence of the cabinet fire rating.

Inverter compatibility and cooling

State inverter model, quantity, dimensions and manufacturer installation clearances. Provide usable internal dimensions after linings, mounting plates and other obstructions, together with external dimensions and maintenance space. Demonstrate an effective cooling/ventilation arrangement that complies with the inverter instructions and preserves the required fire performance and warranty.

Installation and interfaces

Include all supports, foundations/plinths or wall mounting, weather/corrosion protection, drainage and condensation measures, cable containment and fire stopping. Maintain escape routes, safe access and required separation from nearby hazards. Coordinate the installation with the locations and electrical arrangements in Appendix B.

Tender information and pricing

Provide a separate enclosure proposal and price for each unit, identifying manufacturer/model or bespoke construction, dimensional drawings, fire-performance evidence, ventilation method, supports, installation scope, maintenance requirements, lead times and exclusions. Separately identify any alternative mitigation approach, its justification and its effect on price. The base tender shall meet the FRA enclosure requirement.

Design submissions and handover

Submit the detailed enclosure design and supporting evidence for TRESOC review before manufacture or installation. At handover provide as-built details, inspection records, relevant certificates/assessments, operating and maintenance instructions, signage and access information. Include the FRA requirements for fire-service and tenant information, remote monitoring and inspection/testing.



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Fire Alarm Installation & Service,
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Labels, Construction Site Boards
Magnetic

Fire risk assessment of prospected areas allocated for the installation of solar PV Invertors.

Client – Totnes Renewable Energy Society

Site address – Units A, B, C and D Dart Marine Business Park, Steamers Quay, Totnes, TQ9 5AL

Assessment Brief-

To carry out a fire risk assessment survey of the proposed areas allocated for the installation of solar PV invertors and provide recommendations to limit or eliminate the risk to occupants of the buildings and general public regarding fire.

Unit A

Building- a two-storey building occupied by a number of separate businesses

Location – the proposed site is situated below a steel (metal) access staircase and gantry; this gantry and staircase is also designated as one of the routes of escape.

Existing Controls (verbally confirmed at the time of the initial survey)

- All design; installation and commissioning of the solar PV systems is carried out by qualified competent persons.
- All relevant certification and documentation are created and supplied.
- Remote monitoring of the solar PV system is in place.
- A schedule of inspection and testing of the solar PV system will be put in place following the installation.

Required Controls

- Ensure the inverter is installed within a secured 60-minute fire rated enclosure (cabinet).
- Ensure all cabling is secured and fixed correctly.
- Ensure all mandatory signage including access information is fitted within the location of the inverter.
- Ensure the fire brigade is informed of the location of the solar PV system including the access information for the inverter cabinet.
- Ensure all tenants are made aware of the location of the solar PV system and relevant contact details to report any incidents or issues.

Unit B

Building- a single-storey building occupied by a number of separate businesses.

Location – the proposed site is situated at the rear of the building within a secured area.

Existing Controls (verbally confirmed at the time of the initial survey)

- All design; installation and commissioning of the solar PV systems is carried out by qualified competent persons.
- All relevant certification and documentation are created and supplied.
- Remote monitoring of the solar PV system is in place.
- A schedule of inspection and testing of the solar PV system will be put in place following the installation.

Required Controls

- Ensure the inverter is installed within a secured 60-minute fire rated enclosure (cabinet).
- Ensure all cabling is secured and fixed correctly.
- Ensure all mandatory signage including access information is fitted within the location of the inverter.
- Ensure the fire brigade is informed of the location of the solar PV system including the access information for the inverter cabinet.
- Ensure all tenants are made aware of the location of the solar PV system and relevant contact details to report any incidents or issues.

Unit C

Building- a two-storey building occupied by a number of separate businesses

Location – the proposed site is situated below a steel (metal) access staircase and gantry; this gantry and staircase is also designated as one of the routes of escape.

Existing Controls (verbally confirmed at the time of the initial survey)

- All design; installation and commissioning of the solar PV systems is carried out by qualified competent persons.
- All relevant certification and documentation are created and supplied.
- Remote monitoring of the solar PV system is in place.
- A schedule of inspection and testing of the solar PV system will be put in place following the installation.

Required Controls

- Ensure the inverter is installed within a secured 60-minute fire rated enclosure (cabinet).
- Ensure all cabling is secured and fixed correctly.
- Ensure all mandatory signage including access information is fitted within the location of the inverter.
- Ensure the fire brigade is informed of the location of the solar PV system including the access information for the inverter cabinet.
- Ensure all tenants are made aware of the location of the solar PV system and relevant contact details to report any incidents or issues.

Unit D

Building- a single-storey building occupied by a number of separate businesses.

Location – the proposed site is situated at the rear of the building.

Existing Controls (verbally confirmed at the time of the initial survey)

- All design; installation and commissioning of the solar PV systems is carried out by qualified competent persons.
- All relevant certification and documentation are created and supplied.
- Remote monitoring of the solar PV system is in place.
- A schedule of inspection and testing of the solar PV system will be put in place following the installation.

Required Controls

- Re site the existing used cigarette container to a minimum of 1.5 meters from the inverter cabinet.
- Ensure the inverter is installed within a secured 60-minute fire rated enclosure (cabinet).
- Ensure all cabling is secured and fixed correctly.
- Ensure all mandatory signage including access information is fitted with location of the inverter.
- Ensure the fire brigade is informed of the location of the solar PV system including the access information for the inverter cabinet.
- Ensure all tenants are made aware of the location of the solar PV system and relevant contact details to report any incidents or issues.

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