PLUTO LNG TRAIN 2

SR Number : **(C171)**

Title: **Port Facility / Heavy Haul Route Electrical Modifications**

1.0 GENERAL

This scope of work includes modification and Relocation works to Electrical Infrastructure inside the Port of Dampier which is managed by the Pilbara Port Authority (PPA), required for safe transportation of the Pluto Train 2 modules from the QUBE facility to the Pluto Project site. The ocean vessel will unload the modules (weight up to 4500 Tons with dimension 68m L x 30m W, 32m H) at QUBE Dampier facility from where the modules will be transported on Self-Propelled Modular Transporters (SPMTs) to the site. Refer to Figure 1.

2.0 SCOPE OF WORK

SUBCONTRACTOR is required to perform modification works which include but are not limited to the following:

- Relocation of existing RMU at Main Substation 1

  The Ring Main Unit (RMU) at DPA 33kV Main Substation 1 is to be moved to a new location nearby, as per design documentation that is still in process. The works will involve building of a new foundation and cable chamber for all HV cables – main incoming and outgoing feeders. The new cable chamber will require to connect via conduits to the existing 33kV cable chamber. Existing cables must be tested for base conditional assessment. Straight through 33kV joints will be installed, and new runs of cable will be utilized to connect to the RMU at its new location. A new earthing network, with earth pits will be constructed at the location of the new RMU, which may also be linked to the existing earthing network in the area. The RMU will also be tested for base conditional assessment, and will then be retested in its new location, to ensure the relocation has not affected its functional use, and safe re-energization. After relocation, all cables and equipment will need to be re-tested and results submitted to CONTRACTOR, to ensure that the relocation works have not adversely affected the functional use and safe re-energization of these existing PPA assets. SUBCONTRACTOR will be required to carry out all necessary civil and concrete works to enable the relocation of the above assets.

- Relocation of 500kVA 33/0.433 kV transformer at Main Substation 1

  The transformer is to be moved to a new location nearby, as per design documentation that is still in process. The works will involve building of a new Transformer Bund area and foundation and cable raceways to connect to relocated RMU above. The equipment will need to be tested before and after relocation, to ensure that the relocation works have not adversely affected its functional

use, and safe re-energization. A new Earthing system may need to be constructed to suit the new location of the transformer. SUBCONTRACTOR will be required to carry out all necessary civil and concrete works to enable the relocation of the above assets.

- Removal of old Redundant 33kV RMU at Main Substation 1

  SUBCONTRACTOR will be required to remove old Redundant RMU at Main Substation1 and deliver to a location to be nominated by CONTRACTOR/PPA. The works may involve minor Civil items to make safe any open cable chambers, pits, old foundation bolts, etc. Any redundant cabling associated, will have to be disconnected and disposed of, as directed by CONTRACTOR.

- Relocation of DPA Main LV Switchboard at MOF Road.

  Subcontractor will be required to relocate the LV switchboard to a nearby location to be decided. A new cable chamber and foundation will need to be constructed at the new location. The new cable chamber will require to connect via conduits to the existing cable chamber. The existing cables will be extended to the new location of LV switchboard through straight through joints. The equipment and cables will need to be tested before and after relocation, to ensure that the relocation works have not adversely affected its functional use, and safe re-energization.

- Connection and Disconnection of various satellite Generators

  During the numerous electrical infrastructure modifications and relocations, described above, it will be necessary to keep the downstream PPA facilities running by the use of existing of hired diesel generator packages. At some of these locations, it will be necessary for Subcontractor to carry out connections of these free-issued generation packages (cables and equipment), and this may involve disconnection of existing permanent infrastructure, all under direction of CONTRACTOR and PPA. SUBCONTRACTOR will be required to carry out testing, as directed by CONTRACTOR for all temporary arrangements, as well as return to permanent infrastructure.

- Temporary removal and re-instatement of various Cameras and Light Poles.

  SUBCONTRACTOR will be required to temporarily disconnect and remove Light Poles and Camera poles, as directed by CONTRACTOR and PPA. These assets will have to be re-instated, and reconnected after module movement is complete, or when directed by CONTRACTOR.

SUBCONTRACTOR will be required to provide all necessary tools, equipment and materials required to complete the scope of work.

SUBCONTRACTOR may be required to perform engineering design and securing other work permits as directed by CONTRACTOR.

SUBCONTRACTOR may be required to employ specialist cable termination and equipment testing specialists.

SUBCONTRACTOR will be required to submit detailed methodologies for relocation of equipment, and Inspection and Test Plans and Records (ITPs/ITRs), for review and approval by CONTRACTOR.

SUBCONTRACTOR will be required to submit as-built information to CONTRACTOR, including survey information for all relocated underground services.

CONTRACTOR will attain from local authorities all the necessary permits (e.g. works approvals, development approvals) required to complete the scope.

CONTRACTOR will ensure all relevant approvals within PPA vested areas are obtained including Development and Construction Approvals, as well as heritage and vegetation clearing approvals, as required.

3.0 SCHEDULE

- Award January 2023
- Modification Work June to November 2023

Figure 1 – Heavy Haul Transport Route