|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION 1 –GENERAL** | | | |
| Project: | Supernode BESS Stage 1 | | |
| Client: | NuEnergy Infrastructure | | |
|
|
|
| ITR  Description: | 10-CFA01 Metering Panel Installation ITR | | |
|
|
|
| Project No.: | 102524 | Work Pack No.: |  |
|
| ITR No.: | PFI-ITR-0111- | Discipline: | Electrical |
|
| Revision: | Rev A | Install Contractor: | PFi |
|
|
|
|
|
| Standards: | AS/NZS 3000:2018 Electrical Installations  AS NZS 3008.1.1-2017 Electrical installations  Qld Electrical Safety Act 2002 & Regulation 2013  Safety of Machinery Australian Standard 4024.1 | | |
|
|
|
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Drawings: |  | | | | | |
| Prepared by: |  | | | | Date: |  |
| **SECTION 2 – SIGNATURES –APPROVAL** | | | | | | |
| PFI Approval | Name: |  | Signature: |  | Date: |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **o.** | **Items to be Checked** | | | | | | | | | | | **Results** | | | **Remarks** | | |
| 1 | Check Equipment and Nameplate details are correct and in accordance with the data sheet and Equipment Schedule. | | | | | | | | | | |  | | |  | | |
| 2 | Holding down arrangement and seat alignment correct. | | | | | | | | | | |  | | |  | | |
| 3 | Check surface finish and for mechanical damage. | | | | | | | | | | |  | | |  | | |
| 4 | Confirm that all temporary supports, jumpers and ties have been removed. | | | | | | | | | | |  | | |  | | |
| 5 | Incoming cables correctly installed, terminated and supported. | | | | | | | | | | |  | | |  | | |
| 6 | Phase identification correct. | | | | | | | | | | |  | | |  | | |
| 7 | Confirm that padlocking facilities are provided and operate correctly allowing all circuit breakers to be locked in the open position and safety shutters locked in the closed position. | | | | | | | | | | |  | | |  | | |
| 8 | Confirm all cubicle doors can be opened without obstruction and minimum required clearances are retained. | | | | | | | | | | |  | | |  | | |
| 9 | Bus bar alignment to manufacturer's spec. and connecting links tight to specified torque. | | | | | | | | | | |  | | |  | | |
| 10 | Confirm components, fuses etc. correctly sized and identified as per design drawings and Single Line Diagrams. | | | | | | | | | | |  | | |  | | |
| 11 | Instruments, indication lamps and interlocks correct. | | | | | | | | | | |  | | |  | | |
| 12 | Ammeter and current transformer correctly installed. | | | | | | | | | | |  | | |  | | |
| 13 | Check internals for cleanliness. | | | | | | | | | | |  | | |  | | |
| 14 | Check that Switchboard is correctly earthed**.** Check door, escutcheon, gland plate, gland and frame.Test and confirm the earth resistance between switchboard and local earth system is less than 1.0. | | | | | | | | | | |  | | |  | | |
| 15 | All internal cabling and wiring neat, correct, and undamaged. | | | | | | | | | | |  | | |  | | |
| 16 | Unused cable entry sealed. | | | | | | | | | | |  | | |  | | |
| 17 | Heaters correctly installed. | | | | | | | | | | |  | | |  | | |
| 18 | Confirm that all insulating bushings and barriers are satisfactory. | | | | | | | | | | |  | | |  | | |
| 19 | Ensure switchboard is labelled to site standard | | | | | | | | | | |  | | |  | | |
| **Electrical Tests** | | | | | | | | | | | | | | | | | |
| Check Busbar insulation resistance between earth and phases. For a duration of 60 seconds with the following voltages.  Record the current temp: \_\_\_\_\_\_\_\_\_\_\_\_\_ ℃ | | | | | | | | | | | | | | | | | |
|  |  | |  | **System KV** | | | **Test V (dc)** | | **Min IR Reading** | | | |  |  | | |  |
|  |  | |  | <1.0 | | | 500 | | 10 MΩ | | | |  |  | | |  |
|  |  | |  | <2.5 | | | 1000 | | 50 MΩ | | | |  |  | | |  |
|  |  | |  | < 4.6 | | | 2500 | | 100 MΩ | | | |  |  | | |  |
|  |  | |  | >4.6 | | | 5000 | | 250 MΩ | | | |  |  | | |  |
| L1 – Earth: | | MΩ | | L2 – Earth: | | MΩ | | L3 – Earth: | | MΩ | | | N – Earth: | | | MΩ | |
| L1 – L2: | | | MΩ | | L1 – L3: | | | MΩ | | | L2 – L3: | | | MΩ | | | |
| **Test Equipment** | | | | | | | | | | | | | | | | | |
| Make | | | | Model | | | | Serial No | | | | | Calibration Expiry Date | | | | |
|  | | | |  | | | |  | | | | |  | | | | |
|  | | | |  | | | |  | | | | |  | | | | |
| Remarks: | | | | | | | | | | | | | | | | | |

|  |  |
| --- | --- |
|  | TEST/ INSPECTION CARRIED OUT BY |
| **Signature** |  |
| **Print Name** |  |
| **Date** |  |