

Scope of Work for BLU200A Battery Load Unit

1. Objective

This scope of work outlines the activities involved in performing battery discharge and capacity testing using the BLU200A Battery Load Unit, manufactured by DV Power. The goal is to assess the health and performance of battery banks by accurately measuring their capacity under controlled discharge conditions.

2. Equipment Description

The BLU200A is a portable and high-performance Battery Load Unit designed for testing the capacity of DC battery systems. It operates either as a stand-alone unit or *through remote control using DV Power's DV-B Win software*. The device provides real-time monitoring, controlled discharge, and data logging capabilities for comprehensive battery evaluation.

3. Work Activities

- **Pre-Test Preparation**
 - a) Verify the battery system specifications (voltage, capacity, configuration).
 - b) Inspect the battery bank for any visible defects or irregularities.
 - c) Ensure all safety procedures are in place, including PPE and ventilation.
 - d) *Connect the BLU200A to the battery bank as per the manufacturer's instructions.*
- **Device Setup and Configuration**
 - a) Configure the BLU200A for the specific battery type and capacity.
 - b) Set discharge parameters such as end voltage, current, and time duration.
 - c) Select operating mode: stand-alone or PC-controlled (DV-B Win software).
- **Discharge Testing Procedure**
 - a) Initiate the controlled discharge cycle.
 - b) Monitor battery voltage, current, temperature, and capacity in real time.
 - c) Record and store test data for further analysis.
 - d) Ensure the test is stopped automatically or manually when reaching pre-set thresholds (end voltage or total ampere-hours).

- **Post-Test and Analysis**

- a) Disconnect the BLU200A safely.
- b) Analyse the test results to determine actual battery capacity and compare with rated capacity.
- c) Generate a capacity test report including:
 - i. Test configuration and parameters
 - ii. Discharge curves (voltage vs. time)
 - iii. Battery performance evaluation and recommendations

4. Deliverables

- Completed battery discharge test report per unit tested.
- Test data logs (in Excel or PDF format)
- Summary of findings and any corrective recommendations (if underperformance is detected).

5. Exclusions

- Battery replacement or physical maintenance.
- Load tests exceeding BLU200A current/voltage specifications.
- Testing of non-standard battery chemistries unless verified by DV Power.

6. Health and Safety

- All testing shall comply with relevant site safety standards and DV Power operation manuals.
- Only trained and authorized personnel shall operate the BLU200A.
- Fire extinguishers and emergency isolation must be available on-site during testing.

Prepared by: Nicholas Baloyi



Senior Supervisor Secondary plant