

## Yearly oil & coolant analysis helps ensure the engine is maintained in good health. This forms part of our Generator Maintenance services

Mitchellwest always follow in line with manufacturers recommendations for yearly Generator maintenance requirements

We believe in the importance of using high quality lubricant and filtration medium to ensure the reliability of our customers equipment . Our additional services included in our routine generator maintenance are coolant & oil analysis once yearly, this aids towards predictive measures and helps towards diagnostics of possible engine failures.



It is recommended where possible that a building load test is carried out once yearly to prove the equipment against the actual building load. Where this is not possible Mitchellwest are able to offer load bank tests, utilising our own load banks\*

### Additional Engine Services:

- Coolant changes
- Fuel Polishing
- Engine rebuild
- Alternator rewinds
- Thermal Surveys
- Vibration Surveys
- Diagnostic Services
- On site repairs
- Engine Spares
- Loadbank Testing\*



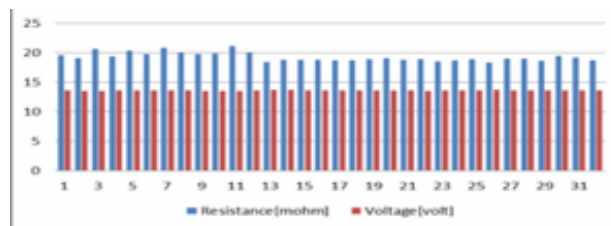


# MITCHELLWEST GENERATOR MAINTENANCE



## Why is monitoring battery impedance an important part of preventative maintenance?

Inspection of the UPS unit alone is not sufficient to maintain a reliable back up support system, carrying out regular battery impedance services will ensure reliable systems, by assisting in early warnings that could have resulted in system failure during a mains outage.



High impedance is another term for "high internal resistance"; this means with age or poor maintenance a rechargeable battery develops a high internal resistance causing the battery to collapse with heavy current demands.

### Effects of impedance on battery load.

A battery with low impedance provides unrestricted current flow and delivers all available energy. A battery with high impedance cannot deliver high energy bursts due to a restricted path and equipment may cut off prematurely.

### What can I do to maintain a reliable mains failure system?

Impedance testing is a safer, easier and more effective method of determining the battery condition without the downtime and cost associated with load bank discharge tests. This involves passing a low frequency AC current through the battery string. The resulting AC voltage produced across each cell is measured and simply divided by the current to give the impedance of the cell. An individual cell can be immediately compared with the average impedance results of the other cells to determine its condition. By comparing results over time, the ageing of an entire battery can be plotted and replacement cost budgeted. By measuring across the cells and adjacent interlinks any failing interconnections will also stand out during the test