



AR POWER
intelligent solar design

Solar Operations & Maintenance Services



SOLAR & STORAGE
LIVE AWARDS
Contractor of the Year 2023



Our Experience

At AR Power we have been installing solar PV systems since 2011. Focusing on residential installations from the outset, we soon found ourselves being asked to design, plan and install commercial solar systems to many businesses across North-East and the UK. Today we are trusted by some of the biggest organisations in the region.

Our main goal is to help companies save money on their energy bills and offset their carbon emissions, helping them realise their NetZero targets. Backed by a team of over 30 employees, including customer service, sales, design, project, installation and maintenance teams, we are fully equipped to install and maintain any solar PV system.

If you have a rooftop or ground mounted solar PV system at your business or organisation's premises and would like it checked to make sure it's working correctly and safely, please contact us today.

Organisations We Currently Maintain

CBRE

CELL PACK
SOLUTIONS

Dunelm

EDMUNDSON
ELECTRICAL

FLI structures

Newcastle
City Council

NHS
North East
Ambulance Service
NHS Foundation Trust

Northumbria
University
NEWCASTLE

slaters
electricals

TOR
COATINGS

UNIVERSITY of
BRADFORD

University of
Sunderland

www.arpower.co.uk



Why Solar Maintenance Is Important?

Solar systems need to work consistently for 25 years plus generating energy, and although there are no moving parts, small faults left unchecked can develop into costly repairs, or even worse, become a fire risk. Just like any other electrical equipment, solar PV systems need to be regularly maintained and checked, and by doing so, any issues found can be resolved before they develop further.

Here are some of the main reasons for carrying out routine maintenance of your solar installation:

Maximise Return on Investment: If your system has any defects, it may not perform as well as it could, which can mean that your return on investment will be substantially lower than projected.

Keep Everyone Safe: Having defects in wiring and inverters could mean that your employees are at risk of electric shock.

Ensure System Lifespan: Regular checks and maintenance can ensure your solar system lasts its full guaranteed lifespan rather than having to replace the system within the given timeframe.

RC62 & Insurance Requirements: Recommendations for fire safety with PV panel installations Version 2 was published in 2023. It is a Joint Code of Practice (JCoP) by the Fire Protection Association (FPA) and the Microgeneration Certification Scheme (MCS). Some insurance companies are now adopting the new CoP and are asking companies for proof that regular solar O&M has been carried out on the system to help prevent fires from happening. In the case of an insurance claim, owners may be asked to demonstrate that they were diligent in their operation and maintenance of a solar system, including monitoring the system for faults and other issues.



Our Solar O&M Services

- Full visual site Inspection
- Visual inspection for panel shading (Using drone)
- Roof condition alert report and check for panels that have moved/shifted out of alignment (Using drone)
- Visual inspection of modules, mounting system, DC cable and containment
- Inspection and testing of inverters
- AC electrical inspection of solar PV circuit
- DC String checks / I-V Curve Tracing
- Inspection of protection devices
- Inspection of accessible connections
- Meter checks
- Check externally for signs of wear and tear, heat damage, discolouration and unusual smells. We will also conduct a visual inspection of internal components for discolouration, corrosion, wear and damage
- Check emergency shutdown procedure is displayed and visible
- Check for sufficient ventilation around the inverters
- Check appropriate safety signage provided on the junction boxes/isolators indicating electrical shock and that the junction boxes/inverters lockable
- Full system operations check
- Check panel cleanliness (Using drone)
- Compare all readings with previous year report for any major deviations
- Full written report containing recommendations for future action



Additional Services

If we identify that your system needs any work carrying out to bring it back to its optimal performance, we will let you know, providing a quote with how much each service will cost in addition to the O&M inspection. Here are some of the additional services we offer:

- Rectification of fault codes
- Solar panel cleaning to remove dirt, bird droppings or lichen
- Inverter repairs or replacement
- New panels if we find any are defective
- Replace cables if any are corroded or have worn
- Add bird deterrent measures if birds are proving to be an issue with nesting and soiling
- Remote monitoring of your Solar PV system to identify issues and system faults

Remote Monitoring

Loss of power production due to faults and downtime can be more expensive than proper monitoring. Monitoring can help build up a historic database of system performance information, which can enable the identification of component issues, the optimisation of revenue, and the prevention of problems. We can install a monitoring system to any solar PV installation to remotely analyse its performance.

The system will tell you how much energy the system has created and how much you have sent back to the grid (extra equipment may be required). It also notifies us if there is a fault on the system, enabling us to fix the problem sooner, allowing you to maintain the best return on your investment.





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