No Summer Holiday for Australian Electrical Infrastructure Warns Eaton

Company Issues Advice to Protect Against Power Outages During Severe Weather, Heat, Electrical Storms and Cyclones

Sydney, 16 November 2009 - The demand for and reliance upon electricity has far outstripped the ability of the public suppliers to deliver it. Moreover, many power outages occur inside the average Australian installation.

Summer is the peak season for power problems. Disturbances to power supply are not only caused by the high winds, bushfires, lightning, fallen trees and heavy rains; but the power distribution equipment, both inside and outside your installation, can be affected by the hot weather, resulting in abnormal power fluctuations.

“It’s not a case of if an outage will happen, but when and for how long you must ensure your business can not only continue to operate and serve its customers but also minimise the potential for damage caused by lightning and other power quality problems,” says Michael Mallia, General Manager, Power Quality, Eaton.

Eaton offers these tips, that if implemented, can prevent or minimise the effects of outages from affecting your operation.

1) Ensure your backup power supply is ready. If your business depends on continuous supply of electricity, it possibly already employs some sort of backup power, such as UPS and battery banks. With the increased occurrence of outages during summer, the odds are that your emergency power system will be called upon more often than during any other time of the year. Therefore it is fundamental that the integrity of the system is confirmed through appropriate maintenance and testing.

In case your business is required to operate even during prolonged outages, the installation and proper maintenance of a backup generator must be considered. At the very least, one must consider installing a temporary generator connection point, so that a mobile generator set can be brought and quickly installed on site if needed.

2) Install surge protection equipment. Surges don’t only originate through a direct strike of lightning. In the majority of cases, the surge propagates through the electrical distribution and telecommunication lines into a building. The installation of appropriately rated surge suppression equipment can greatly reduce the damage caused in the eventuality of a surge. Attention must be given not only to the selection of the right surge protection, but also to the installation method. Improperly installed surge protection equipment can not only be ineffective, but can instead, exacerbate the effects of a power surge.

3) Ensure that your electrical infrastructure is in good condition. During summer, your installation will be submitted to excessive stress due to unexpected power fluctuations and higher temperature and humidity. Small issues such as loose connections and hotspots can be exacerbated to the point of causing a catastrophic failure which potentially will result in interruption of supply and several hours of downtime. An audit of the electrical infrastructure can minimise the chances of an outage caused by failure of your infrastructure.

4) Have an emergency plan. As the reliability of the electrical supply is impaired during summer, it is important that your installation is prepared do take the necessary action in the event of power problems, especially in case your infrastructure requires manual operation of backup equipment. Therefore, ensure the proper emergency procedures are in place and that the personnel responsible for enacting the procedures are properly trained and know your electrical infrastructure.

5) Prepare a list of emergency service providers. Contacting your electricity supplier during an outage is of little avail, as the supplier will work to restore power according to its own priorities, which may not include your business or location; also, they are unable to help if the problem is present inside your installation. Therefore, it is important to have a list of service providers and suppliers with 24/7 response that can be readily available on site. That includes mobile generator installation and refuelling service, UPS service team and supplier of spares for electrical equipment.

6) Perform an emergency system test. Given most equipment is tested on a standalone manner, even if your equipment is well maintained, it is possible that the equipment may not perform during emergency situations. An example are backup generators that are not used frequently or that are only tested without load may not operate when connected to a real load or may only run for short periods of time due to premature overheating. The

same applies for automatic starting of air-conditioning units following a power outage.

“A few simple steps can help organisations prepare for the upcoming season and avoid the headaches caused by weather-related power quality problems,” says Mallia.

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