

## **BATTERY POWER FOR LOAD SHEDDING AND SOLAR APPLICATIONS**

### **Alternatives to Eskom power**

Following months of power outages due to load shedding many South Africans are looking to install bridging power to cover these outages and in extreme cases to reduce or even eliminate their dependence on Eskom supply. If you are contemplating such measures it is important to be informed as to the correct battery to power your system. First National Battery manufactures a range of world-class batteries which are expertly designed to work with these applications.

### **The right battery for the task**

Whether supplying power to operate a few light loads such as the TV, decoder, computer and lights during load shedding, a major solar system for fridges, washers, vacuum cleaners and other appliances or any other duty that requires the battery to be discharged to any great extent the standard automotive battery is totally unsuitable. It employs very thin plates to provide a large surface area for delivering very high currents for very short periods of time. If discharged to some depth at low currents they will give the rated capacity initially but will rapidly lose power due to active material shedding from the plates. Typically if used for 3-hourly daily load shedding for TV, decoder and a light a 45Ah automotive battery is unlikely to last more than 2 to 3 months.

For bridging of these light loads or off grid solar application for low cost housing we would suggest the Excis 12 Volt battery range. These have thicker plates with a more dense paste combined with dual glass matt separation to prevent shedding of active material. Expected life of these batteries under similar conditions to that described above would be 2 years.

For major household solar applications one of the ranges of batteries incorporating tubular positive plate technology is recommended. These are the RSO, RCT, Motive Power and M-Solar ranges. Because of their construction these batteries are particularly suited for regular deep cycling and when sized correctly for the solar duty can be expected to

last over 10 years. The RSO and RCT ranges are free standing units whilst the more cost effective Motive Power and M-Solar batteries need to be supported in cell trays or clamps.