



# switchedon

August 2007

## Onwards and upwards! It has been some time since the last issue of Switched On and much has happened since then.

The business in all product groups has expanded greatly with major advances in all key markets in the Middle East and good progress in the UK.

We have invested in further manufacturing facilities in Dubai and are continuing to do so. In addition we will be investing in a new customer service facility including commercial offices and training and conference facilities.

In the UK we are consolidating our activities in Thame and re-organising our operational layout for maximum effectiveness.

We are continuing to invest heavily in new products in all sectors. In medium voltage we have recently introduced the **new MCR vacuum circuit breaker ring main unit** (see later in this edition) and in low voltage distribution we have introduced a **new range of Heavy Duty Cutouts, new Multi Service Distribution Board and new House Service Cutout amongst others!** Further new products will follow which will allow us to consolidate and advance our strong market position as well as look for new markets with good prospects of growth.

It has been a very busy time for all of us. As we have expanded and expand further there are added pressures on the business but we go forward with a positive business position and bright outlook and we thank you all for your contribution over recent months.

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From left to right – Mr J G Kulkarni, VP Switchgear, Crompton Greaves Ltd; Mr S M Trehan, MD, Crompton Greaves Ltd; Mr C R Levick, General Manager, Lucy Switchgear; Mr M Srivastava, DGM MV Switchgear, Crompton Greaves Ltd.

## CG Lucy another step forward

Recently the Lucy Switchgear joint venture in India, Crompton Greaves Lucy has invested in a multi-million dollar facility to manufacture our Sabre SF6 insulated circuit breaker ring main units for the local market. This follows the successful development of the Lucy oil insulated ring main unit business in India.

The new factory has been equipped with the very latest facilities including a state of the art stainless steel robotic welding machine.

## DEWA and Lucy a True Partnership

Lucy Switchgear has been awarded a contract to supply Sabre type vacuum circuit breaker ring main units to Dubai Electricity and Water Authority. The contract is the largest single order ever received by Lucy and will be executed over a period of approximately 18 months. The contract was awarded in the face of fierce

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competition from all the major players. Carl Sellick, Sales & Marketing Director commented “The combination of a high quality product with local service and support was critical in our success and builds on our very good and strong relationships with DEWA”. Deliveries have already commenced and will continue through 2008 and 2009.

## Factory Extensions

- SF6, LV/PI Factory Extensions – Buildings complete and internal ‘fit out’ and peripherals being completed. End of July 07 scheduled for full occupation



## New Regional Sales Office

- Planning permission secured. Work starts this month with occupation planned in March 08



**2007** has seen the launch of a number of new products to the Lucy Switchgear portfolio



## GEMINI-RTU2 – Remote Terminal Unit

GEMINI-RTU2, or G2-RTU, represents the second generation Remote Terminal Unit from Lucy Switchgear with enhanced design and functionality than its predecessor. These enhanced features include:

- **Reduced component count to improve product reliability**
- **Lower power consumption device even with faster processing power**
- **Updated firmware to add more monitoring features**
- **Inner RTU enclosure can be easily removed for upgrade or maintenance purposes**
- **Packaged power supply unit**
- **More sophisticated battery monitoring and longer life batteries**
- **Easier on-site installation with plug-in RTU connections to the switchgear**

In addition, the new control panel provides operators with a user-friendly interface to assess the RTU/switchgear status and membrane push-button controls. In fact, the G2-RTU can control and monitor up to four ring switches or circuit breakers. As standard, the G2-RTU will be available to customers in two or four switch control format – the two switch version is expected to be our biggest seller when utilised for RMU applications. Supplied on a slimline floor stand, the G2-RTU can be adapted to wall mounting (if required) using the same stand. Direct mounting of the G2-RTU to the SABRE VRN2a is also an option.

On-going protocol and communication interface development will ensure that the G2-RTU will continue to be compatible with all the world's major Control Centre systems.

The SABRE VRN2a and G2-RTU represents a powerful combination and establishes Lucy Switchgear as a world class provider of automated, medium voltage switchgear, meeting the ever increasing and complex demands of our customers worldwide.



## RAPIER GX-RC/S

The RAPIER GX-RC/S product takes advantage of the introduction of the G2-RTU by the integration of the latter in to the former. For customers who prefer an enclosed environment for switching rather than an open terminal, air break device, then the RAPIER GX-RC/S provides this choice.

The primary function of the RAPIER GX-RC/S is as a remotely control load break switch and will predominately be installed on overhead distribution systems operating from 11 to 33kV. An in-built Fault Passage Indicator function in the G2-RTU gives network operators vital information on the location of faulty circuits and the means to isolate the problem rapidly. Current monitoring of the circuit is also available.

When used in conjunction with upstream auto-reclosers, the RAPIER GX-RC/S also serves as an automatic sectionaliser – again, improving the operator's network performance.

The development of this product gives Lucy Switchgear a wider offering for the worldwide MV switchgear market place.



## Our 10001st MK5 Module

Lucy Switchgear started manufacturing on the 29th September 2002 and recently we have completed our 10001st module.

This picture shows the actual 10001st module and our team. This was clearly a good opportunity to celebrate!



## Cinderella goes to the Ball

Lucy Switchgear's Cut-out factory in Thame hits the button and cranks up the roll out of 3 new product groups following completion of a £2M Capital Investment Programme.

Heavy Duty Cut-outs, Multi Service Distribution Boards and Pole Mounted Cut-outs have all received the attentions of the Design and Engineering Department's finest.

Wielding CAD Mice with the dexterity and skill of Harley Street Cosmetic Surgeons, a new generation of products has been created which are lean on components, mean on cost, generous in installation, safe in operation and unusually, appreciable.

### Heavy Duty Cut-outs

- Manufactured in Polyamide thermoplastic glass filled polymer, available in three current ratings, HDC200A, HDC400A and HDC600A.



- Will accept stranded copper or solid aluminium Waveform or Single Wire Armoured Cables up to 300mm<sup>2</sup>.
- Will accept termination of conductors, incoming and outgoing, using compression or mechanical lugs, range taking shear-off mechanical connectors and leader clamps.
- Suitable for SNE or CNE Distribution Networks.
- Fully tested to BSEN60439-1 and ENATS 37-2 Issue 3/4.

## 'J' Type Multi Service Distribution Boards

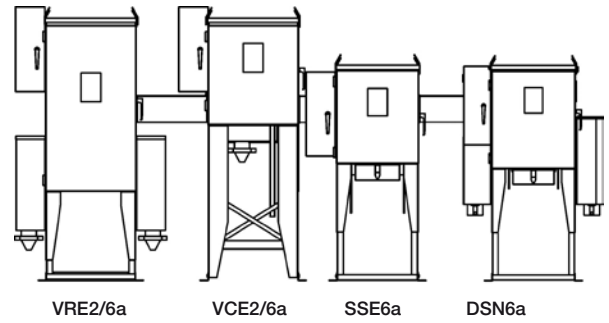
- Manufactured from 1.2mm sheet steel of a preformed and riveted construction, 630A TPN&E, IP3X, indoor, wall mounted, Multi Service Distribution Board.
- Available in 15/24/30/45 way 1J and 2J options.
- Will accept stranded copper or solid aluminium Waveform or Single Wire Armoured Cables up to 300mm<sup>2</sup>.
- Will accept outgoing Service Cables up to 35mm<sup>2</sup>.
- Termination of main conductors, incoming and outgoing, using range taking shear-off mechanical connectors.
- Suitable for SNE or CNE Distribution Networks.
- Fully tested to BSEN60439-1 and draft ENA Technical Specification for Multi Service Distribution Boards.



## Pole Mounted Cut-outs

- Manufactured in Polybutylene Terephthalate thermoplastic glass filled polymer, offering a continuous rating of up to 400A.
- Will accept stranded copper or solid aluminium conductors up to 300mm<sup>2</sup>.
- Will accept termination of conductors using compression or mechanical lugs.
- Incoming cable entries are fitted with self sealing, hard skinned, closed cell, 'Donut' Cable Seals.
- Suitable for 230/415 volt, 4 wire, 50Hz, Distribution Networks.
- Fully tested to BS7656:1993.





## Welcome to the new family - the Sabre 'a' range has been extended

For optimum profitability and productivity, the SABRE range of extensible equipment can offer cost-effective solutions providing custom built switchboards for a wide variety of commercial and industrial applications including transformer substations, ring distribution networks, HV connections to industrial and commercial buildings.

### Vacuum Circuit Breaker Type VCE2a or VCE6a

The Extensible Vacuum Circuit Breaker, available in both 250A and 630A ratings, combines the most advanced Vacuum and SF6 technologies. All switching and circuit interruptions are carried out by the vacuum bottles for optimum integrity and reliability.

Simple design, ergonomic layout with integral functional and cable test interlocks to prevent incorrect operation, has resulted in the optimum in operator safety.

All Circuit Breakers have also been designed with automation in mind, which allows the fitting of actuators for automation and remote control.

### Single Switch Type SSE6a

In addition to the Extensible Circuit Breaker, we have a Single Load Break Switch which can act as an Incomer/Isolator as well as a bus-section unit type DSN6a if required.

### Metering Units AMU2/4/6 - TC/BC/FS

The SABRE range has full compatibility to air insulated metering units consisting of CT's and VT's. The BC option is designed for fitting in a run of busbars of extensible switchgear with alternative facility for cable connection IN and OUT (the FS option). The TC option is for Tee-off Metering and is directly coupled to the switch or circuit breaker.

Each unit comprises MV busbars with two current transformers and a single three phase voltage transformer complete with HV links and LV fuse protection. The ratio and class of transformers can be client specified.

### Busbar Coupling

All units can be directly coupled to form multiple panel switchboards without the need for additional cabling or access to gas insulated chambers. This can be achieved using a well-proven busbar jointing system.

## MCR Into the Future

The new Lucy vacuum circuit breaker ring main unit constitutes a new approach to the market. The MCR is a "panel" style unit designed for front entry cabling. The unit can be used for indoor or outdoor application and is designed for long service life and is virtually maintenance free.

The MCR utilises the same core components as the highly successful and well established Lucy Sabre RMU range. Other features include a compact 'one-tank' solution, stainless steel switching chamber, integral testing facilities on all circuits and an option to employ vacuum interrupters for all functions. The MCR is a welcome addition to the Lucy family and will allow us to penetrate new markets and territories which were not possible with the Sabre range.



Andrew Evans,  
Export Sales Manager,  
Lucy Switchgear



Phil Lonsdale, European Sales Manager, Lucy Switchgear

## Hanover Fair 2007

This year's attendance at the Hanover Fair represented Lucy Switchgear's second outing at this prestigious exhibition. The main theme of the Fair related to the technologies and services associated with the Energy and Factory Automation sectors.

The Lucy Switchgear stand saw the launch of our latest ring main unit design, namely the Multi Circuit Range or MCR for short – a design specifically aimed at the European market. Our second generation RTU technology, the G2-RTU, together with the FRMU and VRN2a RMUs were also displayed to promote the benefits of automation when applied to power distribution networks. Our products were praised by many customers as being at the cutting edge of technology and also innovative in our design approach.

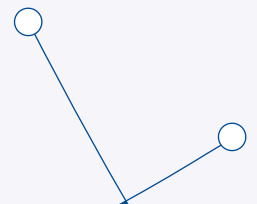
All five days were well attended with many potential customers from mainland Europe, but also importantly from many different parts of the world.

“ The attendance by Lucy Switchgear at this year's Hanover Fair served as an excellent platform to build our presence in automated MV switchgear within Europe, which has traditionally not been our strongest market. ”

*Bill Carlyle, Business Development Manager (Automation)*

## Lucy Switchgear at MEE

Earlier this year Lucy Switchgear attended the now famed Middle East Electricity Exhibition in Dubai, UAE. The new MCR vacuum circuit breaker ring main unit was officially launched at the show which resulted in the first ever orders for the product. The show was attended by many senior representatives from Middle East utilities and other major users. Peter Lymer, General Manager of Lucy Middle East remarked “This show is a very important event, it attracts our major customers from the Middle East and around the world. The MCR was extremely well received and we look forward to further success with the product in the Gulf Region”.



## LUCY Switchgear (UK) and ADAPT Australia... a marriage made in heaven!

LUCY Switchgear (UK) and ADAPT Australia commenced their journey together in July 1992, although Adapt's Managing Director, Peter Sandars had already established a prior working relationship of some eight years with LUCY (UK), as Sales Director for the previous Australian Agents.

In June 1993 Adapt was awarded a three year Contract by Australian Capital Territory Electricity and Water (ACTEW) to supply Lucy type FRMU Ring main units. A year later in 1994 Shortland County Council awarded Adapt a two year contract to supply more Lucy type FRMU Ring main units. These contracts were rolled over for several extension periods, each of three years.

These supply contracts laid the solid business foundation between Lucy and Adapt that still exists today. Aply assisted by the Lucy Marketing Team, Adapt has been party to increased business growth of Lucy Switchgear products to the Australian and New Zealand Electricity Supply Industry over the past fifteen years.

Adapt now supplies Lucy SF6 and Oil Insulated Ring main Switchgear to some very notable and discerning Utility, OEM, Contractor and Mining Customers including:

ACTEW / AGL – (Canberra – ACT)  
Energy Australia – (Sydney – NSW)  
Energex Ltd – (Brisbane – Q'ld)  
BHP-Billiton – (Adelaide – SA)  
PAWA – (Darwin – NT)  
Hahn Electrical – (Boulder – WA)  
Positron – (Perth – WA)  
Elcore Electrics – (Kalgoorlie – WA)  
Christaldo Electrics – (Cairns – Q'ld)  
CityLink – (Melbourne – Vic)  
Vector – (Auckland – NZ)  
Western Mining – (Adelaide – SA)  
Nilsen Electrical – (Adelaide – SA)  
Nelson Electricity – (Nelson – NZ)



From L-R Front Row are - Darren Sandars (Manager- Major Accounts), Howard Neilson (Marketing Manager), Peter Sandars (Managing Director), Bob Coulter (Engineering Manager), Anthony Jones (Group General Manager).

From L-R Back Row are - Dennis Hanson (Manager IT & QA), Daniel Cetrola (Electrical Engineer, Technical Services), Grant Sandars (Commercial Director).

2006 was a stand-out year for Adapt in establishing new business for Lucy products, especially the new 'VRN2a' compact Ring main switchgear. In the face of fierce competition, long-term supply arrangements have been made with utility and mining customers alike. They are all attracted to the compact SABRE unit by it's ease of use and it's clever design that enables motor actuators and remote control functionality to be retrofitted to the 'basic' unit as and when required.

In support of the newer range of Lucy switchgear and automation solutions, Adapt has established a Technical Services Group to undertake service, system-integration and automation projects, which are an emerging need for Power Utilities and Industrial/Mining customers in the Australasian market.

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**Lucy** Switchgear