

## A Word from your President

### Customers Stunned by Electricity Price Surge

The impact on electricity prices of the long running drought has been enormous. Many generators on the east coast are struggling to deal with a lack of cooling water for thermal power stations while hydro dam levels hit new lows. 2003 prices of \$40/MWh seem long gone as larger electricity customers are negotiating electricity prices in the order of \$90/MWh.

With many industrial customers needing to renew electricity supply contracts from 1 July 2007, the price shock is both real and in most cases totally unexpected. For many businesses the cost of electricity has been about 3% of total cost. In many cases this will now jump to 6%. This is an additional cost that will flow straight down and reduce the bottom line.

So what impact will increased prices have on customers, retailers and generators? For electricity customers the big savings that started with the introduction of the National Electricity Market seem to be over. Large customers need to develop new strategies to provide longer term protection from large price variations. For retailers, the rapid change in prices spells business risks, particularly for any unhedged load they might hold. For generators with drought restricted output, high prices are potentially a disaster as they are forced to purchase back in the market, electricity they had presold. For generators with unrestricted operation, things look very good.

While small business and residential customers remain protected from the price surge because of existing regulated retail rates, it is inevitable that market pressure will force higher prices through future regulatory determinations. In my view there is a real opportunity here for electricity retailers. Retailers have struggled to provide value adding services above and beyond electricity supply contracts – the opportunity now exists for retailers to work with industrial customers to provide arrangements that will provide protection from large and unexpected movements in electricity market prices before their longer term contracts come to an end.

So what are the longer term implications for the electricity industry? Is the market signalling a shortage of generation? What is interesting about the current high prices is that they have occurred between the traditional summer peak and winter peak. How the available generation will cater for the upcoming winter peak could be interesting. If the drought does not break soon the summer peak could also be a challenge.

What happens next is going to be a major test for the effectiveness of the National Electricity Market structure. In the past era of over generation capacity, the market has tended to work for the benefit of customers and to the detriment of generators. The tables have now turned. High market prices for electricity will encourage the construction of new generation. But faced with a probable post election carbon trading scheme or carbon tax, the investment environment is very uncertain and discouraging new generation investment. This I believe is the biggest medium to long term threat to the industry. Wind and solar cannot deliver the base load and peaking capacity that we will need. We are in for interesting times ahead.

### Other News...

**South Australia** – “Arc Flash Containment” was the subject of an EESA seminar held in Adelaide with presentations from Spiro Mitrotoulos of Schneider and Dr David Sweeting. A most successful event organised by Martyn Pearce (EESA SA Chair), Phil Cheeseman and Ashley Webster.

**Western Australia** – EESA WA Chair Doug Ayre organised a very successful seminar in Perth on 330kV XLPE cable. The presenter was Joe Oliver of Pyrsman. This event had over 110 attendees.

**Victoria/Tasmania** - Favourable reports have been received from the Vic/Tas chair, Colin Frost on the EESA Renewable Energy seminar held in Melbourne and organised by Cameron Buckley.

**Queensland** – EESA Qld chair, Lawrie Cleary has reported that their “Energy in a Water Constrained World” seminar was a great success thanks particularly to the organising efforts of Ross Granger.

**NSW/ACT** - I attended the recent EESA Springhill/ 132kV GIS Switchgear Seminar hosted by Integral Energy. My congratulations to Greg Schafer, Tony Patterson and Peter Norrie for a very educational event.

If you would like any of these topics covered in a seminar in your region talk to me or a member of your state chapter about the possibilities. Over the next few weeks I'll be attending the Auckland conference of the Electricity Engineers Association of New Zealand and the Tampa, Florida, USA conference of the Power Engineering Society of the IEEE. I'll give you a report in the next edition.

# The Electric Energy Society of Australia

## 83rd National EESA Conference and Exhibition

Electricity 2007 bringing...Power to the People

15th – 17th of August 2007, Melbourne Victoria

For full details relating to delegates, sponsorship and exhibition please go to  
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## News and Issues from around the Industry...

by John Thomson

### AER Board Member Tells Energy Users Nothing Untoward In Recent NEM Price Increases

The Energy Users Association of Australia has been told by ACCC Commissioner and AER Board Member Mr Ed Willett that the current high spot prices across the NEM in recent months are a normal market reaction to the effects of the prolonged drought. Initial investigations have found that while supply and demand conditions remain stable, the drought, as well as scheduled maintenance of plant, has been impacting on prices. Prices have significantly risen in the second quarter of 2007 (averaging \$70/MWh compared to \$25/MWh last year) and have flowed through in forward prices for base and peak contracts through to 2010. The AER is satisfied that generators are not colluding to force up prices, nor are they breaching the rebidding rules.

### Council of Australian Government Reform Council to Monitor Energy Reform

Last week the Prime Minister, Mr Howard, appointed one of his former cabinet advisers, Mr Paul McClintock, (a former cabinet secretary and head of the cabinet policy unit in Canberra) as chairman of the high level Council of Australian Governments Reform Council (CRC). In 2006, Commonwealth, State and Territory leaders agreed to the establishment of the council, aimed at improving productivity and efficiency, and ending duplication. Former Western Australian Premier Geoff Gallop is deputy chairman.

COAG agreed that the CRC's role will be to monitor progress in implementing National Reform agenda initiatives and to assess the costs and benefits of reforms referred to it unanimously by COAG. COAG has now referred a number of proposals to the CRC in the areas of transport, energy and regulation reform, initially for monitoring of progress and subsequently for assessment of costs and benefits. The CRC will provide annual progress reports.

### Further Energy Market Reforms

At its meeting on 13 April 2007, COAG agreed to a range of further energy market reforms that will be implemented by MCE. As a result the MCE at its 25 May meeting tasked the Standing Committee of Officials (SCO) to develop a work program to implement certain initiatives, including:

- 1 the creation of a National Energy Market Operator (NEMO);
- 2 the formation of a National Transmission Planner (NTP) and development of a national framework for transmission network reliability standards;
- 3 a national review of energy Community Service Obligations with a view to developing a national framework;
- 4 the development of options for the integration of spot and forward contract markets (through AEMC, NEMMCO and the ASX);
- 5 annual progress reports to COAG on energy market reforms; and

MCE agreed to direct the AEMC to immediately develop a detailed implementation plan for the establishment of a national electricity transmission planning function, and undertake a review of transmission planning reliability standards with a view to developing a consistent national framework for network security and reliability.

The Ministers agreed that their next meeting will be held in Perth in November 2007.

### Revenue Reset – AER Publishes Powerlink's Revenue Caps for 2007/08 to 2011/12

On June 14 the Australian Energy Regulator (AER) released its Final Revenue Determination for Powerlink for the regulatory control period 2007/08 to 2011/12. The AER has approved smoothed revenues for the TNSP of \$537M in 2007/08 rising to \$815M in 2011/12. The AER also established a total ex ante capex allowance amounting to \$2.63B, with an extra \$1.38B for contingent projects. Powerlink was also provided an opex allowance of \$731M. By way of comparison, the approved amount for Queensland's capital works programme is more than double that approved for NSW network service provider TransGrid.

### A Number of European Union Countries Agree to Link Transmission Grids

Five European countries - France, Germany, Belgium, Luxembourg and the Netherlands - are said to have signed an agreement to increasingly link their power grids to make it easier to trade electricity across their borders, and aim to create a single integrated electricity market by 1 January, 2009. Such a move is an attempt to resolve the current situation where buying electricity from another country is a time consuming, two-fold operation. The supply of electricity in Europe became a major issue last November when a massive power cut in Germany temporarily hit supplies across the greater continent.

# The Electric Energy Society of Australia

## Concerns Expressed about Exposure Draft Electricity Distribution Rules

Both the Energy Networks Association of Australia (ENA) and the Energy Supply Association of Australia (esaa) have responded critically to the exposure draft of the National Electricity Rules (draft Rules), released by the Ministerial Council on Energy (MCE) Standing Committee of Officials in April 2007.

ENA stated that while the draft Rules do improve electricity distribution regulation compared to the patch-work of current State-based regimes, in some specific areas they fail to achieve the policy objectives of the MCE or to deliver a best practice regime. In a 33-page submission ENA states its case for the draft Rules to better reflect the needs of distribution networks, while building where possible on the strengths of existing transmission rules. It noted that many of the positive reforms to transmission regulation have been "lost" in a modified approach for the distribution sector. Due to what the ENA clearly regards as major flaws, a second draft of the Rules has been called for to address the many practical issues identified in its submission "if industry is to have confidence in the final Rules."

In a separate response to the same draft Rules, esaa also expressed its primary concern that the 'exposure draft' proposals compromise the MCE's own preferred governance arrangements. In this regard esaa argued that the proposed Rules do not maintain the strict separation of roles accorded to the AEMC and AER. For example, the Rules (as drafted) allow the AER both to determine the form of regulation to apply, as well as having to enforce and administer such regulations. Like ENA, the esaa response stated that the draft Rules are inconsistent with the approach taken to electricity transmission.

These arguments have also been put forward by ETNOF (the Electricity Transmission Network Owners' Forum) and a multitude of individual distribution businesses.

## EESA Qld Chapter News

### Recent Queensland Chapter events:

20 May 2007 – Technical seminar "Energy in a Water Constrained World".

South-East Queensland remains in the grips of a historic drought, and faces an uncertain future due to natural climate variability and long-term climate change. The current crisis, which has been exacerbated by a population boom, has exposed the vulnerability of our water supplies, with profound implications for the energy industry

Around 40 attended this all day event, which examined the implications of our current water situation for the energy sector, both from the perspective of water requirements for power generation, and energy requirements for desalination.

The seminar featured the following subjects and speakers:

- 1 Overcoming Water Management Issues in Power Generation – Les Lloyd (Veolia Water Australia)
- 2 Retrofitting Dry Cooling to Power Plants - Doug Buchbach (Sigma Energy Solutions)
- 3 Water Desalination - Bart Vervetjes (CH2M Hill)
- 4 Kogan Creek Power Project - Ian Rawlings (CS Energy)
- 5 Western Corridor Recycled Water Project - Warren Traves (Western Corridor Recycled Water Project)

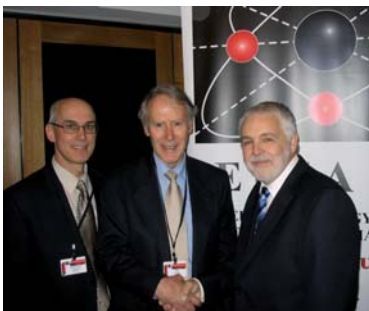
### Forthcoming events:

- July 2007 – Queensland Chapter Annual General Meeting and technical seminar (topic to be confirmed).
- August 2007 – Site visit to the Brisbane Tramway Museum at Ferny Grove – to be held on a Sunday as a family event.

For more information on the Queensland Chapter's technical programme or other activities, please email [qld@eesa.asn.au](mailto:qld@eesa.asn.au).

## EESA Victorian/Tasmania Chapter News

EESA Victoria/Tasmania Chapter held a one-day seminar on Sustainable Energy on 17 May 2007. High quality presentations from industry-leading speakers provided insight into the technical and business aspects of wind power, geothermal power and the challenges for network connection. EESA Victoria/Tasmania Chapter thanks all the speakers for their time and effort, and the ninety attendees for making the seminar a success.



New Corporate Member Worley Parsons represented by Lawrence Gebert and Rod Touzel



RMIT Head of Discipline, Electrical Engineering, Associate Professor Liuping Wang, and RMIT Students Tim de la Zilwa and Indhiran Nayagar with VICTAS Chapter Chair Colin Frost.

# The Electric Energy Society of Australia

## EESA NSW/ACT Chapter News

### NSW Events

#### Thursday 12 July 2007

Canberra: ActewAGL seminar, Engineers Australia National Office  
Please see attached flyer for more details

#### Friday 20 July 2007 *Please note new date*

Regulatory Seminar: Sydney Mechanics School of Arts, followed by the **NSW Chapter AGM**  
Please see attached flyer for more details

### NSW State Conference Energy 2007: Balancing the New Energy Equation, 12-14 September 2007

In an everchanging electrical world where we are seeing the emergence of a national investment body to coordinate public and private spending on energy infrastructure, six state based emission trading schemes, the rollout of smart metering and the tentative emergence of microgrids - an industry based conference looking at the "state of play" in NSW and the rest of the world has never been more welcome.

The EESA NSW State conference will be held in Brighton le Sands, Sydney from the 12<sup>th</sup> to 14<sup>th</sup> September 2007. The program will include:

#### Energy Supply to NSW - history, present and future challenges

Panel session of CEOs including **George Malfabarow**, EnergyAustralia, **Jim Henness**, Delta Electricity, **Richard Powis**, Integral Energy, **Peter McIntyre** GM/Network Performance and Development, TransGrid and **Mark Miller**, General Manager/Operations, NEMMCO

#### International Developments in the Electricity Supply Industry

**Scott Rouse**, Managing Partner, Energy @ Work, Canada (sponsored by IEEE)

It will also have a solid and timely series of presentations from industry experts on •integrating distributed generation •advanced diagnostic monitoring •asset management of distribution systems •substation battery management •customer supply and power quality •smart meters •intelligent grids and asset management •education & training

The conference will conclude with a panel session on the real effect of an emissions trading scheme for the electricity supply network businesses. A comprehensive trade display with equipment and hardware utilised in the industry will as usual also be available during the two days of the conference.

The EESA continues to pursue its mission to train and educate industry professionals at all levels and this conference promises to be an exciting addition to a well regarded series of professional industry conferences provided by the power industry at a modest cost. We would like to thank our sponsors **Country Energy, EnergyAustralia, Integral Energy** and **ActewAGL** for their continued support.

### Springhill Project Seminar, Integral Energy Huntingwood 25 May 2007.

Greg Schafer's presentation to about 50 delegates at Huntingwood gave an overview of the design, construction and commissioning challenges to be met in achieving the rebuild of Integral Energy's Wollongong Springhill substation, using 132kV GIS switchgear and associated equipment.

Equipment within Springhill substation has reached the end of its economic life. This combined with load growth in the area creating a need to increase capacity has led to a decision by Integral Energy to rebuild on the existing site.

To add further challenges to the project, IE's Field Service Centre also shares this site. This centre also needs to be redeveloped to accommodate a control room, call centre and administration functions presently undertaken elsewhere. The location of field services centre also restricts the rebuilding options for the substation.

The site visit to IE's Bella Vista 132kV substation gave delegates a first hand view of the type of switchgear to be used and the associated control and maintenance facilities associated with this type of installation. Integral Energy generously provided transport for the site visit, a very comfortable presentation venue and excellent food and drinks after the presentation. This project will also feature in a presentation in the above NSW State conference.



132kV switchgear at Bella Vista

### Bulletin 4, August - September 2007

Please email submissions by 3 August 2007 to the Bulletin Editor, Peter Tapp on peter.tapp@gmail.com