

A brief highlight of the “Mathematics of Electricity Supply & Pricing” Workshop in Surfers Paradise, Australia, 2007

“Lunch at Lab” Presentation

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Outline

- The material covered
- Some things to be mindful of
- The outlook for the “Quantitatively Inclined”
- Some key research areas

The Material Covered

- <http://www.amsi.org.au/Electricity.php>
- Risk Management
- Swing Options
- Price Modelling
- Importance of the Network
- Renewables and Nuclear

Some Things to be Mindful of

- Extreme events that affect Electricity prices happen more often than most models will indicate.
- Risk managers and traders should be wary of this and investigate price peculiarities closely.
- There is a major drought in Australia that is causing the Futures prices to JUMP!!! So perhaps futures and not just spot markets jump

Some Things to be Mindful of

- Network constraints can play a huge part in the way prices behave in given regions, this should be considered
- Knowledge of reliability engineering data and methods may be helpful in model construction and risk management
- Be wary of the correlation between temperature and demand over time, use a time varying correlation method

The outlook for the “Quantitatively Inclined”

- The outlook is great for those with strong mathematical skills.
- A speaker indicated that it would be of interest to companies to have people that could go through legally drawn up contracts to find where money was gained or lost.
- The quantitative skills need to be accompanied by both economic and financial understanding.

Some key research ideas

- A panel of experts listed the following as the key areas for the future:
 - 1) Risk Management
 - 2) Network congestion
 - 3) Renewables
 - 4) Models

Thank you

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