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Academy



Electricity Industry Fundamentals

An essential course on Australia's National Electricity Market covering the fundamentals of the electricity industry, including end-to-end industry design, clean energy transition and reforms. Ideally suited for those working within or alongside the industry needing to fast-track their learning.



Attend In-Person or Live Digital

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In partnership with

**ENERGY
SYNAPSE**

Course Information

Live Online Training	May 2024								
	Part 1	7 May	Part 2	8 May	Part 3	9 May	Part 4	10 May	1pm - 5pm AEST
	September 2024								
	Part 1	24 Sep	Part 2	25 Sep	Part 3	26 Sep	Part 4	27 Sep	1pm - 5pm AEST
Face to Face Training	MELBOURNE	5 - 6 March 2024 12 - 13 September 2024							
	BRISBANE	11 - 12 March 2024 19 - 20 September 2024							
	SYDNEY	19 - 12 March 2024 16 - 17 September 2024							
	CANBERRA	5 - 6 September 2024							

Key Learning Objectives

- Overview of the electricity industry fundamentals in Australia
- Key power generation and storage technologies
- Design of the National Electricity Market (NEM), including trends and challenges in the transition to clean energy
- System planning and energy policy
- Retail market design and trends
- Risk management using contracts and derivatives
- Network and ancillary services in the NEM
- Value of flexibility in the energy transition

Who Will Benefit

Managers, executives and staff from independent power producers, renewable energy project developers, regulatory bodies and government, banks, superfunds and asset managers, lawyers, consultants, major energy users, and other industry professionals seeking more knowledge about the current electricity industry and future trends.

About the Course

What are the fundamentals of the energy industry? This energy industry fundamentals course will provide a clear understanding of the structure and workings of the Australian electricity industry and the National Electricity Market (NEM).

Our expert instructor will explain the design of the NEM and the critical issues facing the electricity industry as it undergoes the biggest transformation in its history. This will include a discussion of renewable energy, energy storage, demand response, system planning, and policy. Participants will also learn about the technical concepts, key data metrics and language used within the electricity industry. For those who need to build strong and practical expertise in the energy industry, this course will provide a foundational background and training on energy industry fundamentals.



"Great overview with enough detail to explain the concepts even if you have no technical background."

Information Officer, NOPSA

"Over the years I have attended many training courses provided by [Informa Corporate Learning]. I have always found the course content to be relevant and accurate and the course facilitators to be leaders in their field."

Analyst, ENI Australia Ltd

Meet Your Course Director

Course Outline



Marija Petkovic

Marija Petkovic is a leading expert in wholesale electricity markets and the transition to clean energy, having worked in this field for more than 12 years across Australia, New Zealand, and the United States.

Marija is currently Managing Director at Energy Synapse, a top analytics and advisory firm. Energy Synapse has been engaged to provide energy market advice to some of the biggest renewable energy developers in Australia as well as regulatory and government bodies. Marija's commentary on energy issues is frequently featured in media as ABC News, Sydney Morning Herald, RenewEconomy and many more.

Throughout her career, Marija has been known for her innovation and ability to distil complex concepts and make them easy to understand by audiences of all levels. Marija currently serves on the Industry Advisory Committee at the University of Sydney and has previously served on the editorial board of Ecogeneration Magazine.

Marija holds a Bachelor of Engineering (Chemical) (Hons I) and a Bachelor of Commerce (Finance) from the University of Sydney.

THE NATURE OF THE ELECTRICITY INDUSTRY

- Australia's energy resources within the broader global context
- Fuel mix options include coal, gas, solar PV, hydro, and batteries
- Comparison of options on economic, technical, social, and environmental criteria
- Trends and future directions

OVERVIEW OF ELECTRICITY INDUSTRY DESIGN

- Objectives of electricity industry design and decision-making protocols
- Structural choices in electricity industry design
- Comparison of design choices in Australia with global markets such as those in North America
- Limitations of present industry design choices and possible future design options

DESIGN OF THE NEM

- Key features that manage supply/demand balance
- Bidding, price setting and dispatch
- Marginal loss factors
- Participant categories and requirements
- Generator revenue

ANCILLARY SERVICES IN THE NEM

- Frequency control ancillary services
- Non-market ancillary services, such as network support and system restart
- Performance to date & future trends

NETWORK SERVICES IN THE NEM

- Services provided by transmission and distribution companies

- Network ownership, operation, investment, and pricing
- Future trends in network services

RETAIL MARKET DESIGN AND TRENDS

- Role of electricity retailers as risk managers
- Current retail market design and pros/cons
- Possible future directions in the retail market

CONTRACTS AND DERIVATIVES

- Power purchase agreements
- Contracts for difference
- Caps and swaps
- Derivative market designs – OTC & exchanges

SYSTEM PLANNING AND ENERGY POLICY

- Function of key bodies such as AEMO, the AEMC and the AER
- Federal policy, including the Renewable Energy Target and Capacity Investment Scheme
- Renewable Energy Zones
- Integrated System Plan
- State-based targets and policies

FLEXIBLE RESOURCES IN THE NEM

- Value of flexibility in the energy transition
- Large-scale storage, including batteries and pumped hydro
- Demand-side resources, including load control, storage, electric vehicles, virtual power plants, and green hydrogen

WORKING WITH ENERGY MARKET DATA

- Common units
- Key metrics for energy market analysis
- Key metrics to assess the performance of power stations

Electricity Industry Fundamentals

Easy Ways to Register



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Electricity Industry Fundamentals

Course Code	Location/ Format	Course Dates	Early Bird price valid until		Standard price valid after	
			ME - 16 Feb 24 BR - 23 Feb 24 SY - 1 Mar 24 CB - 16 Aug 24 ME02 - 23 Aug 24 SY02 - 30 Aug 24 BR02 - 30 Aug 24		ME - 16 Feb 24 BR - 23 Feb 24 SY - 1 Mar 24 CB - 16 Aug 24 ME02 - 23 Aug 24 SY02 - 30 Aug 24 BR02 - 30 Aug 24	
P24GR14ME	Melbourne	5 - 6 March 2024	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50
P24GR14BR	Brisbane	11 - 12 March 2024	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50
P24GR14SY	Sydney	19 - 20 March 2024	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50
P24GR14CB	Canberra	5 - 6 September 24	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50
P24GR14ME02	Melbourne	12 - 13 September 24	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50
P24GR14SY02	Sydney	16 - 17 September 24	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50
P24GR14BR02	Brisbane	19 - 20 September 24	\$3,195.00 + \$319.50 GST	\$3,514.50	\$3,495 + \$349.50 GST	\$3,844.50

Great Savings:

When you book **4 or more** participants! **Call us** today on **+61 (2) 9080 4399** or email **training@informa.com.au** to take advantage of the discount offer.

Course Code	Location/ Format	Course Parts	Course Dates	Standard Price	
P24GR14AUV	Live Digital	All 4 Parts	7 - 10 May 2024	\$2,695 + \$269.50 GST	\$2,964.50
P24GR14AU02V	Live Digital	All 4 Parts	24 - 27 September 2024	\$2,695 + \$269.50 GST	\$2,964.50

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Speak with **Sushil Kunwar** on **+61 (2) 9080 4370** to discuss your customised learning solution, or email inhouse@informa.com.au



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