

API 2008 Residential School in Electric Power Engineering

Power Industry Solutions for Customers in the 21st Century

4 February – 22 February 2008

SCHEDULE

The course has been structured to provide the opportunity for two special days that will be open to participants not enrolled for the residential school who will be able to attend in addition to the course participants. These special training days are:

Friday, 15 February 2008 Full Day
Micro Generation and Renewable Technologies

Monday, 18 February 2008 Full Day
Smart Grids

Wednesday, 20 February 2008 Full Day
Climate Change: Challenges and Opportunities for Power Industry

Lecturers have been drawn from utilities and equipment suppliers and universities.

Lecture material relevant to syndicates will be presented prior to the commencement of the main activities for syndicate work.

TIMETABLE WEEK 1

	Sunday 3 Feb 2008	Monday 4 Feb 2008	Tuesday 5 Feb 2008	Wednesday 6 Feb 2008	Thursday 7 Feb 2008	Friday 8 Feb 2008
8.00 – 8.30		Welcome from the Chair and the Manager				
		Generation	Transmission	Distribution	Market and Economics	End Users and Customer Solutions
8.30 – 9.30		Generation Fundamentals – Part 1 Chris Bailey (Delta Electricity)	Transmission Forecasting and Planning – Part 1 Nadesan Pushparaj (VENCorp. Victoria)	Distribution Planning Fundamentals – Part 1 Chris Dalitz (Country Energy)	Fundamentals of the National Electricity Market – Part 1 David Bowker (Hydro Tasmania)	Demand Management and Metering Infrastructure – Part 1 Neil Gordon (Energy Australia)
9.30 – 10.30		Generation Fundamentals – Part 2 Chris Bailey (Delta Electricity)	Transmission Forecasting and Planning – Part 2 Nadesan Pushparaj (VENCorp. Victoria)	Distribution Planning Fundamentals – Part 2 Chris Dalitz (Country Energy)	Fundamentals of the National Electricity Market – Part 2 David Bowker (Hydro Tasmania)	Demand Management and Metering Infrastructure – Part 2 Neil Gordon (Energy Australia)
10.30 – 10.45	Morning Tea/Coffee					
10.45 – 11.45		Power generation: an overview – Part 1 Prof. Trevor Blackburn (UNSW)	Transmission Design and Construction – Part 1 Tony Gillespie (Powerlink)	Distribution Design and Construction – Part 1 Colin Lee (Energex)	Energy Regulation Garth Crawford (ENA)	Reliability and Power Quality – Part 1 Ian Gibb (Aurora)
11.45 – 12.45		Power generation: an overview – Part 2 Prof. Trevor Blackburn (UNSW)	Transmission Design and Construction – Part 2 Tony Gillespie (Powerlink)	Distribution Design and Construction – Part 2 Colin Lee (Energex)	Transmission pricing Rebecca Faloon (Transend)	Reliability and Power Quality – Part 2 Ian Gibb (Aurora)
12.45 – 1.30	Lunch					
1.30 – 2.00		Delegate Presentations	Delegate Presentations	Delegate Presentations	Delegate Presentations	Site Visit: Risdon Substation and Creek road Control Room
2.00 – 3.00		TBA Martin Grose (Hydro Tasmania)	Transmission Asset and Maintenance Management – Part 1 Wayne Tucker (Transend)	Distribution System Automation – Part 1 Rod Frowd (Utilities Consultant and Contractor)	Technical Regulation – Part 1 Michael Kilgariff (Energy Networks Association)	
3.00 – 4.00		TBA Martin Grose (Hydro Tasmania)	Transmission Asset and Maintenance Management – Part 2 Wayne Tucker (Transend)	Distribution System Automation – Part 2 Rod Frowd (Utilities Consultant and Contractor)	Technical Regulation – Part 2 Michael Kilgariff (Energy Networks Association)	
4.00 – 4.15	Afternoon tea/coffee					
4.15 – 5.15		The use of power electronics for improving voltage profile. Mark Davies (Hydro)	System Control Prof Gerard Ledwich (QUT)	Distribution Control and Operation Rod Wright (Aurora)	Customers, Commerciality & Confidentiality Michael Green (Transend)	
5.15 – 6.45	Welcome Reception	Free Time	Free Time	Free Time	Free Time	Free Time
6.45 – 7.45	Evening Meal					
8.00 – 9.00						Tasmanian Cheese & Wine: Evening with the Host

TIMETABLE WEEK 2

	Sunday 10 Feb 2008	Monday 11 Feb 2008	Tuesday 12 Feb 2008	Wednesday 13 Feb 2008	Thursday 14 Feb 2008	Friday 15 Feb 2008	Saturday 16 Feb 2008	
8.00 – 8.30		Welcome from the Chair and the Manager						
		New Approaches to Asset Management	Power Quality Issues and Industrial Customer Supply	Designing, Planning and Operating Large Networks	Advances in Condition Monitoring	Micro Generation and Renewable Technologies	Free Time: Salamanca Market	
8.30 – 9.30		Maintenance management – Part 1 Gary Winsor (Energy Australia)	PQ fundamentals and interpretation of current Australian Standards Prof. Vic Gosbell (Uni of Wollongong)	Overview of Large Networks Prof. Peter Wallace (Monash University)	High Voltage Testing Dr Tadeusz Czaszejko (Monash University)	Micro Generation and Renewable Technologies Rebecca Tilbrook (Hydro Tasmania)		
9.30 – 10.30		Maintenance management – Part 2 Gary Winsor (Energy Australia)	Power Quality Issues for Customers Dinesh Perera (Transend)	Power System Planning & Analysis in the National Electrical Market. Dinesh Perera (Transend)	Case Studies on Moisture Assessment of Operating Transformers – Part 1 Prof. Valery Davydov (Monash University)	Issues associated with implementation of embedded generation and microgrids – Part 1 Alex Baitch (BES Aust)		
10.30 – 10.45	Morning Tea/Coffee							
10.45 – 11.45		Network asset management – Part 1 Alan Cotton	Power Factor Correction for Customers Bob Coulter (ADAPT Australia)	Fault Calculations Prof. Akhtar Kalam (VUT)	Case Studies on Moisture Assessment of Operating Transformers – Part 2 Prof. Valery Davydov (Monash University)	Issues associated with implementation of embedded generation and microgrids – Part 2 Alex Baitch (BES Aust)		
11.45 – 12.45		Network asset management – Part 2 Alan Cotton	Aspects of Industrial Distribution Bob Coulter (ADAPT Australia)	An Introduction to Dynamic Transmission Line Ratings Bruce Longmore (Transend)	Advances in condition monitoring – Part 1. Barry Finlay (Advanced Technology Centre, Connell Wagner)	Stability of Embedded Generation Prof. Peter Wallace (Monash University)		
12.45 – 1.30	Lunch							
1.30 – 2.00		Delegate Presentations	Delegate Presentations	Delegate Presentations	Delegate Presentations	Delegate Presentations	Trip to Launceston	
2.00 – 3.00		Electricity Supply Industry Agreements Roger Rilley (Hill-Michael)	Fundamentals of Substation Design Peter Berry (Areva)	Connecting New Generation to the Grid Ragu Balanathan (NEMMCO)	Advances in condition monitoring – Part 2. Barry Finlay (Advanced Technology Centre, Connell Wagner)	Wind power generation Mark Kelleher (Roaring 40's)		
3.00 – 4.00		Management of Assets in Distribution Businesses – Part 1 Tim Wicks (Aurora)	Current Ratings of Underground Cables Mike Loring (Aurora)	Integration of Basslink into the Tasmanian Power System. Michael Green (Transend)	Power Pole Condition Monitoring Robert Crump (Aurora)	Wind Connections – Part 1 Prof Syed Islam (Curtin University)		
4.00 – 4.15	Afternoon tea/coffee							
4.15 – 5.15		Management of Assets in Distribution Businesses – Part 2 Tim Wicks (Aurora)	CEO's Forum	Technology Roadmap Mike Gregg (Energen)	SF ₆ Applications In Substations and Transend Networks. Management of Sulphur Hexafluoride Rod Jones (Transend)	Wind Connections – Part 2 Prof Syed Islam (Curtin University)		
5.15 – 6.45	BBQ and welcome reception with Richard Bevan (CEO, Transend)			SYNDICATES Briefing on Syndicate Scopes and Objectives	Special Session: “People and Skills – Powering Australia’s Future” (API Board Members)	SYNDICATES		
6.45 – 7.45	Evening Meal		School Dinner	Evening Meal				
8.00 – 9.00								

TIMETABLE WEEK 3

	Sunday 17 Feb 2008	Monday 18 Feb 2008	Tuesday 19 Feb 2008	Wednesday 20 Feb 2008	Thursday 21 Feb 2007	Friday 22 Feb 2007	
	Site Visit	Smart Grids	Protection, Control Metering and Automation	Climate Change: Challenges and Opportunities for Power Industry	Markets and Regulation	Official Presentation Day	
8.30 – 9.30	Site Visit: Woolnorth Wind Farm	Trends Towards Intelligent Networks Alistair Wells (Automation Regional Director – Pacific, Areva)	Protection, Control, Metering and Automation: Part 1 Trevor Scott (Transend)	Climate Change: Challenges and Opportunities for Power Industry Brad Page (CEO esaa)	A Regulatory Overview Chris Pattas, Director of Networks Regulation South (AER)	Syndicate Presentations	
9.30 – 10.30		Remote Condition Monitoring Andrew Kingsmill (Transgrid)	Protection, Control, Metering and Automation: Part 2 Trevor Scott (Transend)	Climate Change: National Generators Prospective John Boshier (CEO National Generators Forum)	Otter’s Perspective Andrew Reeves (Tasmanian Energy Regulator)	Syndicate Presentations	
10.30 – 10.45		Morning Tea/Coffee					
10.45 – 11.45		Intelligent Networks - Part 1 Jeff Lee (IBM)	Analysis of significant network incidents: Part 1 John Theunissen and David Rendell (SP AusNet)	Nuclear Energy: A 360 Degree View Barrie Hill (Head, Construction Services Jacobs Australia)	An economic appraisal of the Market Margaret Beardow (Principal, Benchmark Economics)	Syndicate Presentations	
11.45 – 12.45		Intelligent Networks - Part 2 Jeff Lee (IBM)	Analysis of significant network incidents: Part 2 John Theunissen and David Rendell (SP AusNet)	Sustainable Energy - Australia in a Global Context Phil Harrington (Aurora)	Emergent Futures Paul Higgins (Core Consultant, Emergent Futures)	Syndicate Presentations	
12.45 – 1.30		Lunch					
2.00 – 3.00		Smart Grids Eric Myres (Aurora)	Incident Control Systems Warren Brooks (Aurora)	The Impact of Climate Change on Hydro Generating Systems David Marshall (Hydro)	SYNDICATES	Feedback and Close	
3.00 – 4.00		Computational Intelligence Applications to Crisis Management in Power Systems Prof. Michael Negnevitsky (University of Tasmania)	Fundamentals of Earthing Andrew Hill (Hydro Tasmania)	SYNDICATES	SYNDICATES		
4.00 – 4.15		Afternoon Tea/Coffee					
4.15 – 5.15		HVDC and Basslink Joska Ferencz (Basslink)	SYNDICATES	SYNDICATES	Free Time		
5:30 – 6:30		Informal Discussion: <i>Smart Grids: What The Future Holds</i> Eric Myres (Aurora)	Free Time	Free Time			
6.45 – 7.45		Evening Meal				Transend & Aurora Dinner	
7.45 – 9.00							

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Syndicates (are subject to change)

SYNDICATE 1: Connection Agreement Negotiation: Key Issues, **Michael Green (Transend Networks)**

SYNDICATE 2: Strategic Grid Planning – What It Is About? **Sead Pasalic (Transend Networks)**

SYNDICATE 3: Incident Control Systems, **Warren Brooks (Aurora Energy)**