

CHIEF EXECUTIVE
ANNUAL REPORT
CALENDAR YEAR 2008



The last 12 months have seen significant progress made in establishing API as the nationally recognised representative of the power industry in Australia on power engineering skills and education.

The API now has over 25 industry members from all sectors and States/Territories following the successful amalgamation with the Power Engineering Alliance (Qld).

The promotion of power engineering to young people has expanded from the continuation of the successful Power Engineering Bursary Program (for first year engineering students) to include a new website specifically targeted at 15-18 year olds (visit www.powerengineering.org.au to see for yourself) and a Facebook site for API Bursary recipients to communicate, called YAPers (Young Australian Power Engineers).

The engagement between API and over 14 universities across Australia has not only allowed industry to become more closely aligned with the power engineering academics at universities but API (including the PEA Amalgamation) has seen over \$1 million provided to universities for laboratory upgrade projects and over \$2 million provided to sponsor new academics (targeted at early career academics). This is all specifically targeted to improve the teaching and learning experiences of students at universities studying power engineering subjects/electives.

The Board of API has developed a comprehensive Strategic Plan with corresponding Actions (both immediate and medium/longer term) which it gives me great pleasure to report progress against.

Objective 1: Power Engineering an Exciting Whole of Working Life Career Choice

Outcomes Achieved in 2008:

- National Power Engineering Bursary Program was expanded to include Tasmania, with over 40 bursaries awarded nationally (API now has a total of 131 bursary recipients, including the PEA bursary recipients)
- Power engineering website designed to target Generation Y, 15 to 18 year olds was developed and launched. Nine young recent graduates from industry share their experiences in the power industry via video footage.

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- A power engineering Summer Camp for year 10 and 11 students is being piloted in WA , coordinated by Curtin University (to be held in February 2009)
- API is providing speakers and field tours for the Siemens Science Experience activities at QUT and UQ in Queensland in 2009
- Bursary recipients have commenced speaking on their power engineering experiences (both at university and during vacation employment) to high school students. This will be further expanded in 2009.
- API in partnership with CIGRE – ANC provided 3 prizes for API Bursary recipients who submitted entries to the Warren Centre National Energy Essay Competition.

Objective 2: World Class Power Engineering Undergraduate Teaching and Learning

Outcomes Achieved in 2008

- API has established close working relationships and is providing funding to the following universities in 2008 :
 - WA: Curtin University of Technology, University of Western Australia
 - SA: Adelaide University
 - TAS: University of Tasmania
 - VIC: Victoria University, RMIT University
 - NSW: University of Technology Sydney, Sydney University, University of New South Wales, University of Wollongong
 - QLD: James Cook University, Central Queensland University, University of Southern Queensland, University of Queensland, Queensland University of Technology

Funding is provided to improve teaching and learning resources (mainly for laboratory upgrades/new equipment and sponsorship of new academic positions, preferably early career academics) and is based on the contribution to API's Strategic Objectives and co-contribution (both in-kind and financial) from the university.

- API completed a survey of industry needs for power engineering graduates skills and competencies (12 organisations and 50 face to face interviews were conducted) to prepare a Power Engineering Curriculum Map (for 3rd and 4th year undergraduate studies and postgraduate elective/specialist study) as part of the \$600,000 Collaborative Power Engineering Centres of Excellence Project (funded by the Federal Government, Department of Education and Training). Following this 9 undergraduate modules and 4 postgraduate modules have been assigned to a lead university and a support university, with nominated industry subject matter experts, to develop curriculum that will be made available through API on a national basis (free of charge for undergraduate modules). A Collaboration Agreement between the API and Participating universities has been developed for this development work.

- API has sponsored two (2) early career academics to attend the API Power Engineering Summer School in Perth (from 2-13 February 2009) as a development opportunity for university academics to become aware of the latest industry practice and trends.

Objective 3: Value Adding Continuing Professional Development Programs and Applied Research

Outcomes Achieved in 2008

- The API Power Engineering Summer School whose theme was “Power Industry Solutions for Customers in the 21st Century” was successfully held from 4-22 February, 2008 in Tasmania, hosted by the University of Tasmania. Over 40 delegates attended with a very high rating for the quality of presentations and program of learning.
- Organisation of the 2009 API Power Engineering Accelerated Development Summer School (Residential) whose theme is “Sustainable Power Industry Solutions for Customers in 21st Century” is well advanced with 52 current registrations (60 maximum) and is to be held from 2-13 February, 2009 in Perth, WA. An enhanced model based on experience and feedback from 2008, has seen the event move to a commercial conference facility, The Vines Resort and Country Club, in the Swan Valley, Perth.
- The API PowerChem 2008 – Power Station Chemistry Conference, Exhibition and Training Courses was held from 25-30 May, 2008 at the Novotel Twin Waters, Sunshine Coast, Qld, with over 100 delegates and exhibitors and a number of international speakers.
- The following API Masterclasses , bringing international presenters to share their learning’s and experience with Australian industry professionals as part of their continuing professional development, were held:
 - Reactive Power Management and Voltage Stability by Prof. Ian Hiskens, University of Wisconsin-Madison, USA
 - Power System State Estimation by Prof. Ali Abur, Northeastern University, USA and Dr. Rastko Zivanovic, Adelaide University.
 - Energy Sustainability – The Californian Experience by Dr. Perry Sioshansi, President Merlo Energy Economics, USA
 - Modern Partial Discharge detection and Analysis for Insulation Assessment coordinated by Trevor Blackburn, UNSW with various industry presenters.

Objective 4; A Vibrant, Nationally Respected Organisation by Industry, Universities and Government

Outcomes Achieved in 2008

- The API and Power Engineering Alliance (Qld) who both had identical objectives and programs, but different scopes of operation (API – national, PEA – Queensland only) concluded an amalgamation in October, 2008
- The membership of API following this amalgamation and new members joining throughout 2008 has increased from 16 in 2007 to 27 in 2008, representing all sectors of the industry, these being: generation, transmission, distribution, manufacturing, consulting, contracting.
- The API submitted an expression of interest for funding under the Diversity Fund, administered by the Department of Education, Employment and Workplace Relations, which was successful and API has now submitted a full application which is being considered.

The governance and financial management of API continue to be sound to allow API to implement its major strategies. In 2009 it is proposed to further explore how API may work more closely with the Australian Power Academy, who provides scholarships for 3rd year engineering students to study power engineering.

I would also like to welcome Peter Wright and Adriana Bodnarova, who have previously been Manager and Power Engineering and Bursary Liaison Officer respectively with the PEA, and now will be providing these services to the API following the recent amalgamation.

Finally, I would like to thank all the members of the 2008 API Board and the partner universities for their continued support and efforts during 2008 which has resulted in API truly establishing itself as an effective, action orientated organisation, that is firmly focussed on addressing the skills gap in power engineering. Whilst the economic challenges of late 2008 will have an impact on the future, it is generally forecast that the need for “real engineering” as opposed to “financial engineering” of the recent past, will definitely be needed to address the infrastructure and climate change challenges of the future...these will not go away.

My best wishes to everyone for a safe, enjoyable festive season and prosperous, rewarding New Year.

Mike Griffin
Chief Executive

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