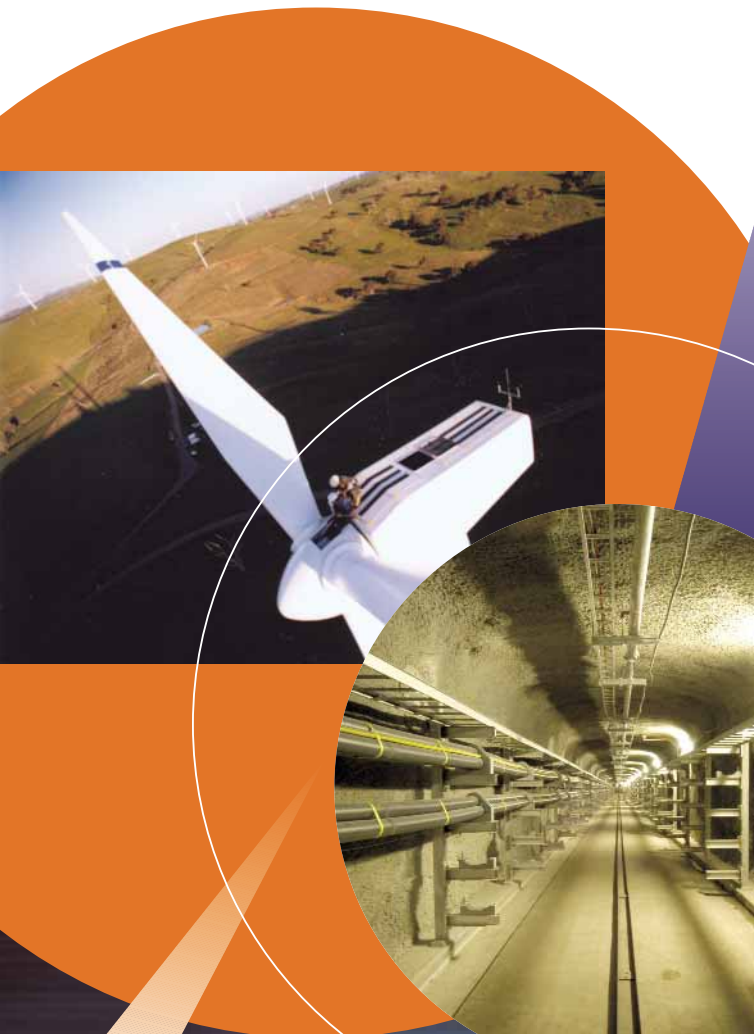




**The Australian
Power Institute**



*“Sustainability and
excellence in engineering
skills for the power
industry in Australia”*

Membership Information



The Hon Ian Macfarlane MP
Minister for Industry, Tourism and Resources

PARLIAMENT HOUSE
CANBERRA ACT 2600



The Australian Power Institute

The Australian Power Institute has been formed to support and enhance teaching and research in power engineering at Australian universities. The Australian Power Institute's objective is to fulfil the training needs of industry including at the undergraduate and postgraduate levels.

The electrical power industry is technically complex and requires a significant level of skills to facilitate the continued development of Australia's research and operational capability in the area of power engineering.

It has been recognised that there is a shortage of electrical technical skills in the electricity industry and Australian universities. To continue to meet the demand for technical capability and an appropriately skilled workforce, we need to attract students and retain professionals. The Australian Power Institute will assist in addressing this issue.

I commend the efforts being made by the electrical power industry and academic community to support the Australian Power Institute initiative and wish it well in its endeavours.

Yours sincerely

Ian Macfarlane

what is the API?

The Australian Power Institute (**API**) is a not for profit organisation established as an initiative of the Australian power industry with the mission of achieving:

Sustainability and Excellence in Engineering Skills For the Power Industry in Australia.

Achieving this mission will enhance the performance and competitiveness of the Australian power industry organisations.

The API will support universities in all Australian States to enhance their teaching and research capacity in power engineering, encourage high quality students select power engineering and be challenged as undergraduates, and ensure there are accessible postgraduate programs and experiences that facilitate acquisition and retention of specialist skills necessary for the industry.

The university and continuing education structure needs to ensure that professional engineers will continue throughout their careers to acquire engineering skills at the highest level and at the forefront of knowledge, benefiting both individuals and industry.

The API will encourage industry-sponsored and supported research with the intention that multi-campus Centres of Excellence in disciplines relevant to the industry's future will thrive at Australian universities.

Continuation of support from the API for these activities will be based on performance.

The cooperation of industry and cooperation amongst universities are priorities of the API.



background

The API is an industry-sponsored initiative to ensure a sustainable Australian power engineering education sector that fosters excellence in engineering skills relevant to the power industry. It provides a new structure that facilitates industry participation in universities by a cooperative model.

Engineers Australia and esaa have highlighted significant issues identified through the results of a sponsored survey of the industry and universities in Australia.

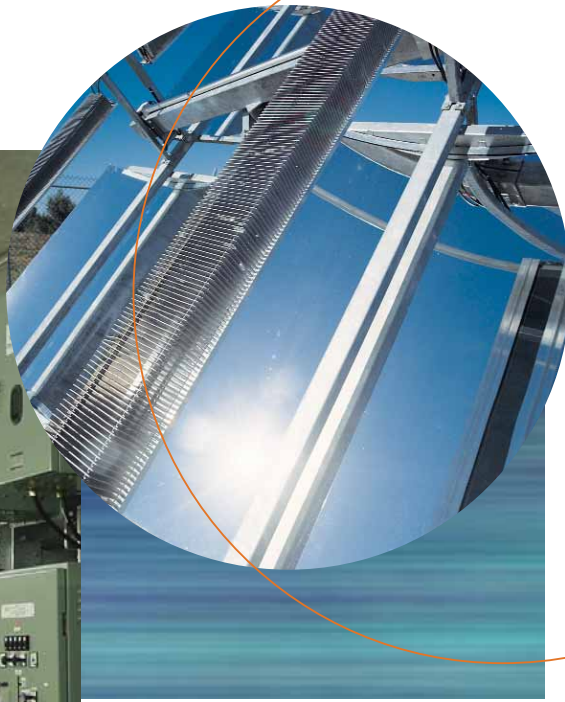
The critical conclusion is that there is no longer a match between the education and training requirements of the industry and the capability of the universities to service those requirements. In particular insufficient numbers of power engineering students with some power specialisation will graduate in the coming years to meet the projected entry level recruitments. Further, the capability of universities to engage in research and to provide comprehensive continuing postgraduate education will continue to decline.

While there are exceptions, overall there has already been a significant decline in the ability of power engineering schools to carry out teaching and research in almost all aspects of electric power engineering, attributable to:

- Fluctuating patterns of student entry and graduate recruitment;
- Changes in levels of industry support for postgraduate education and research;
- Expansion in the number of universities with engineering schools, including many with inadequate support for the power related area;
- Review by universities of their commitment to power engineering, having regard for student numbers and preferences, and available funding, resulting in some now having doubtful viability.

This situation can only be corrected by the commitment of industry to apply a substantial injection of expertise and funding to the needs of the power engineering education and research. With an estimated asset base of \$110 billion, and projected capital works of the order of \$30 billion over the next 15 years, the industry has both a need and the resources to address the problem.





how it works?

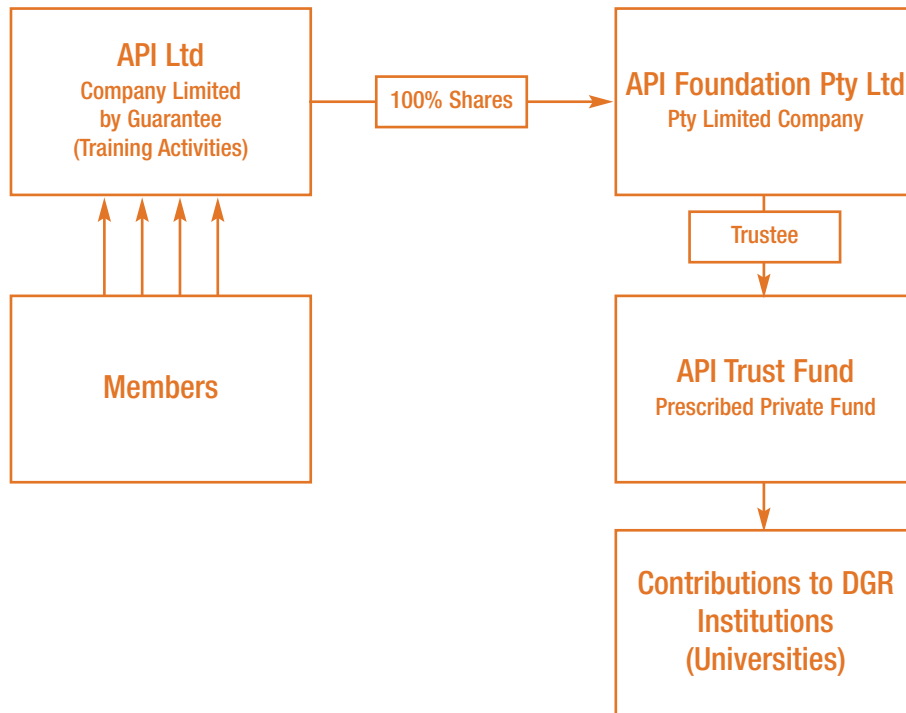
The API channels membership funds to meet its education and research objectives. The API Board will include members at Chief Executive level, representing both industry and universities and will determine these objectives. The API will be guided by the following principles:

- The API will have a coordination and facilitation role and will work through existing educational institutions on a selective and competitive basis;
- The work of the API will be Australia wide in its scope and international in outlook;
- The initiative will cover undergraduate, postgraduate, R&D, and continuing professional development.

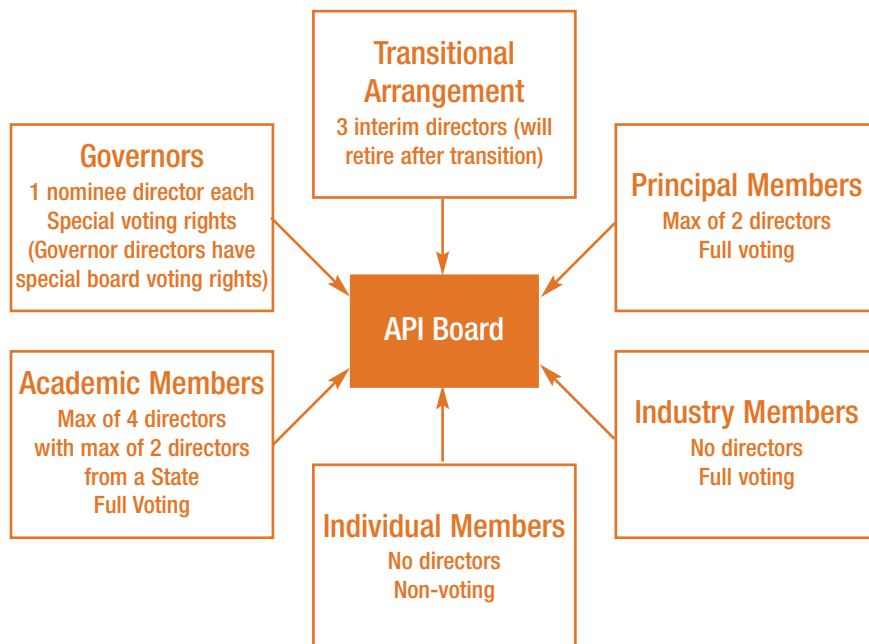
The activities to be supported by the API will include:

- Short Courses in areas of need;
- Postgraduate Courses;
- Undergraduate training including industry training;
- Seminars by experts in relevant fields;
- Involvement of industry experts in academia and vice versa;
- Programs for paraprofessionals;
- Development of distance education and flexible delivery methods;
- Development of courses for Masters Degrees and Graduate Diplomas in Power Engineering;
- Support for applications for government grants, such as through CRC and ARC Programmes;
- Related Research and Development.

Governance Structure



Classes of Members



organisation and membership

The Australian Power Institute Ltd (API), a company limited by guarantee with income tax exempt status, has been formed to conduct training and other activities.

Membership of the API is open to all organisations and individuals who have an interest in the power industry in various categories of membership. An annual membership fee is determined by the category of membership. Membership fees will entitle Members to various benefits according to Membership Category as set out on page 8.

The membership categories are as follows:

- **Governor Members** are organisations with substantial and diverse levels of technical expertise requirements with a major role in the power industry, and which are expected to make a long-term commitment to the broad industry and API. Governor Members will each be entitled to appoint a director to the Board of the API.
- **Principal Members** are major organisations with substantial levels of reliance on technical expertise but with fewer technical staff than Governor Members. Principal Members will be entitled to elect two directors from among themselves to the Board of the API when there are more than eight Principal Members.
- **Industry Members** are organisations with a high level of technical involvement in the industry. Industry Members are entitled to vote but have no rights to appoint directors.
- **Individual Members** are persons who wish to contribute and participate in the education and research activities and decisions of the industry. They will have no voting rights.
- **Academic Members** are participating universities. Academic Members are entitled to elect four directors from among themselves to the Board of the API.

An application form is included in this document or can be downloaded from our website.

The API Trust Fund

The API has a wholly owned subsidiary company, API Foundation Pty Limited, which has been formed to act as Trustee for the API Trust Fund (the Trust).

The Trust will invite contributions from Members, industry participants and the wider community for the benefit of tertiary education institutions. The Trust is a Prescribed Private Fund with Deductible Gift Recipient status under the Income Tax Assessment Act. Consequently, donations made to the Trust are deductible for income tax purposes.

Donations to the Trust will be allocated by the Trustee to meet the Trust's objectives in accordance with the Trust Deed. Donors who contribute more than the prescribed amount to the Trust will be entitled to nominate a director to the Board of the Trustee.

The API Foundation will seek Expressions of Interest from universities and groups of universities who seek to participate in the achievement of API's objectives. Submissions will be evaluated independently and decisions will be made by the Board based on best meeting the objectives, taking a national and cooperative approach.

membership benefits

The benefits to individual organisations relate to securing a sustainable source of engineering skills in an industry that has a technically complex asset base supported by specialised engineering capability.

The API will ensure:

- Attraction of high quality students to power engineering specialties;
- University power engineering schools attain excellence towards world's best standards;
- There is an adequate pool of high quality graduates;
- Graduate employees have access to rigorous but flexible avenues to acquire specialist skills appropriate to their industry sector;
- There is a process for updating these skills throughout an engineering career; and
- The university academic staff provides a resource for industry in investigating significant and complex technical issues.

The achievement of these goals will benefit individual organisations by:

- The availability of high quality engineers;
- An ability to update their skills and employees' skills with minimum disruption to work; and
- An enhanced capability to introduce and support new technology.

Membership of the API ensures these advantages are available to each participating organisation.

Specific benefits of membership are:

- Concession fees for short courses run by API;
- A quarterly newsletter setting out trends and other information regarding power engineering education;
- An annual summary of available statistics regarding courses, student numbers and academic numbers and activity.

For Governor, Principal Member and Academic Members:

- Direct involvement in setting objectives and reviewing performance by having the ability to appoint directors to the Board of API (see page 7);
- Opportunities for direct access for visiting experts involved in short courses;
- Assistance in arranging participation for selected students in vacation training; and
- Assistance in arranging rotational training for staff.

membership

Applications for membership should be made on the form supplied with this information document.



From the President of Engineers Australia

High quality engineering is a cornerstone of the Australian industry and underpins Australia's economic performance. In the area of infrastructure, the Australian power industry provides a distinct economic advantage to our manufacturing industry to successfully compete with the world's best and at the same time attract investment in the energy intensive sector. For this to continue, we must invest in nurturing of skills and training in development and application of advanced engineering technology.

Engineers Australia has an objective of ongoing development of engineering skills to meet the need for a variety of programs to address different facets of this issue. We recognise the need to improve science and mathematics teaching at schools as well as continuous professional development throughout the career of an engineer.

The establishment of The Australian Power Institute to support and enhance the teaching and research in power engineering area is a timely initiative of the power industry. At a time when engineering education and research is poised at a critical point, this initiative is to be commended and I urge all organisations and individuals in the power industry and academia to support this initiative through the widest possible membership.

Andrew Downing

President
Engineers Australia



From the Chairman of the Energy Supply Association of Australia

Over recent years the energy supply industry in Australia has undergone major change that has produced significant benefits for energy consumers. The Energy Supply Association of Australia (esaa) both supports and facilitates activities that contribute to the energy supply sector being more effective in meeting the changing requirements of Australian consumers.

Energy sector performance improvement depends upon high quality engineering to not only maintain existing energy assets, but also to produce optimal outcomes from the estimated \$30 billion of new energy infrastructure investment that will be required over the next 15 years.

The esaa and its member companies have long fostered and contributed to the development of technical and engineering excellence and recognise that further steps must be taken to equip the energy supply sector with the skills and capabilities it needs to meet Australia's growing energy requirements.

The formation of the Australian Power Institute is a welcome industry initiative and I commend active participation from all our member companies. With industry support I believe we can ensure our power engineering capability continues to represent world's best practice.

Greg Martin

Chairman
esaa



From the Chairman of the Australian National Committee of CIGRE

An extensive, effective, reliable and affordable electricity supply is essential for people's health, raising living standards and the economic well being of a country.

CIGRE, the Paris based International Council on Large Electric Systems, is a world wide peak electricity industry body with over 5000 members in 80 countries. Its aim is *"to develop and distribute technical knowledge in the fields of generation and transmission of electricity."* In Australia its objectives are pursued through the Australian National Committee of CIGRE.

For a number of years, both nationally and throughout the world there has been increasing concern at the decline in teaching and research capability of universities and a consequent reduction in high quality graduates to meet the needs of electricity and power industries in an increasing number of countries. CIGRE has led the consideration of the issue internationally through its Electric Power Engineering Education Panel.

I am very pleased to see the establishment The Australian Power Institute as a cooperative initiative of the power industry. The API is unique in its scope and its national perspective. It will provide the much-needed mechanism for ensuring world best teaching and research in the area of power engineering in Australia benefiting the entire power industry.

On behalf of the Australian National Committee of CIGRE, I applaud the establishment of the API and encourage all organisations to participate as its members.

Peter Tyree

Chairman of the Australian National
Committee of CIGRE



The API Foundation Pty Ltd

The API Trust Fund



The API has a wholly owned subsidiary company, API Foundation Pty Limited, which has been formed to act as Trustee for the API Trust Fund (the Trust).

The Trust invites contributions from Members of the API, industry participants and the wider community for the benefit of education institutions. Donations to the Trust will be allocated by the Trustee to meet the Trust's objectives in accordance with the Trust Deed.

The capital of the Trust will be applied solely for the purpose of providing money, property or benefits to or for eligible educational institutions as the Trustee decides. This can be for a variety of purposes including staff support, course development, laboratory enhancement and cooperative programs between universities.

This allocation will be initiated through an Expressions of Interest process which will invite all educational institutions to submit proposals for which support will be provided to meet the objectives of the Trust Deed including proposals for enhancement of existing programs. These proposals will be evaluated and a decision made by the Trustee directed towards a national perspective.

The Trust is a Prescribed Private Fund with Deductible Gift Recipient status under the Income Tax Assessment Act. Consequently, donations made to the Trust are deductible for income tax purposes.

Donors who contribute more than the prescribed primary amount of \$200,000 per annum to the Trust will be entitled to nominate a director to the Board of the Trustee. The directors of the API appointed by the Academic Members will also be directors of the Board of the Trustee.

A. To be able to provide annual grants and adequate funding to meet its objectives, the Trust invites you to provide a commitment for extended periods of up to four years or longer.

Name of Organisation:

Address:

Amount Donated: \$

for year:

Indicative Commitment

years

Contact Person

Name:

Title:

Tel. No:

Email address:

Signature of Authorised Person:

Date:

B. Should you wish to provide us with a cheque as a one off donation to the Trust, please make your cheque payable to "The API Trust Fund" and post to the delivery address indicated above. Please include your name and return address so that we may issue you or your organisation with a receipt for your donation.

The Australian Power Institute Ltd

Membership Application



This Membership Application is for consideration by the Board of The Australian Power Institute.

Name of Organisation:
Registered Address:
Postal Address:

Contact Person

Name:	
Title:	
Tel. No:	Fax. No:
Email address:	Mobile:

Membership Category Proposed

<input type="checkbox"/> Governor <input type="checkbox"/> Principal
Technical Interest Areas for Australian Power Institute Activity:

Signature of Authorised Person:	Date:

Receipt of this application will be acknowledged by The Australian Power Institute. Following consideration of the Application by the Board the applicant organisation will be formally advised, formal documentation completed and, if accepted, including the issue of an invoice.

contacts

Postal Address:

c/- Integral Energy,

PO Box 6366,

Blacktown

NSW 2148

Contact:

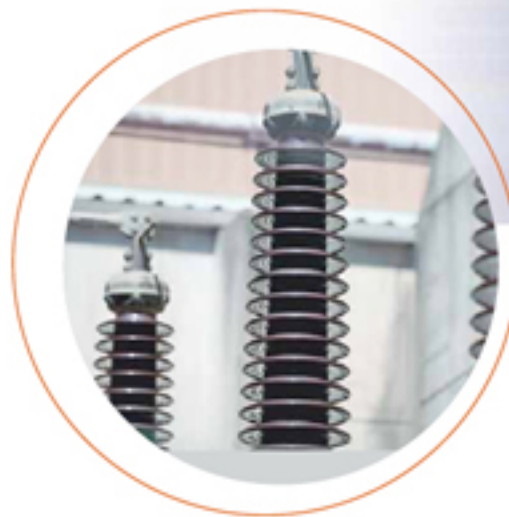
Mike Griffin

Chief Executive

Email: mike.griffin@api.edu.au

website

API.EDU.AU



Company Details:

THE AUSTRALIAN POWER INSTITUTE LIMITED,

ABN 48 111 280 178