

Engineers Australia Western Australia Division

Annual Report 2007-2008

ANNUAL REPORT



**ENGINEERS
AUSTRALIA**
Western Australia Division

Division Director's Report

Janice Lake

The 2007-2008 Annual Report highlights the achievements of the WA Division as they relate to the Key Objectives of the Operational Plan, for the financial year ending June 30 2008. The Report will be presented to the 89th Annual General Meeting of the Division to be held on 8 December 2008.



This year has seen continuing growth in our membership. Total membership for the Division to end June 2008 was 11,218, representing a 6.4% annual increase. This rate of growth has been maintained for the past 4 years. Qualified member numbers are growing at a similar rate.

The Division's panels and groups have provided a program of Continuing Professional Development of high quality, covering the full range of engineering disciplines and several major seminars and conferences have been held in WA during the year.

Our members have been involved in enhancing education, government and industry cooperation and we have conducted a number of programs aimed at encouraging students to consider a career in engineering.

Engineering Week and the Engineering Excellence Awards once again provided opportunities to celebrate and to profile the achievements of the engineering profession and the Year of Women in Engineering in 2007 was an outstanding success.

The Division restructured the Division Committee and formed a Division Advisory Board in June 2008, in line with the requirements of the new Division Rules. The new arrangements have been well received by members and will provide an opportunity for wider discussion and contribution through the Advisory Board.

The following achievements for the Division are detailed under the 7 Key Objectives to which we are required to report.

Objective 1 Public Role and Professional Standing

The Division contributed to several Engineers Australia submissions and reports including the ICT Infrastructure Report Card, the Review of 457 Visas, the Education Review, the State Infrastructure Strategy, Water Governance in WA and strategies to increase Women's participation in engineering courses. In addition there was on-going work on the proposed Engineers Act discussion paper and a proposal for a scheme under the Professional Standards Act was provided to the WA Government.

Meetings with government officials included members of the Transport Panel, Education Subcommittee and Division Committee. Engineers Australia is represented on a number of government, education and industry committees including the State Infrastructure Strategy Reference Group, the Premier's Science Award judging panel, the Defence Industry Skills Unit, various university consultative forums and National Science Week.

The Division was fortunate enough to have His Excellency Dr Ken Michael AC the Governor of Western Australia participating in several of the high profile events including the Engineering Excellence Awards and the Sustainability Conference.

The Division's profile was enhanced with a paper presented by Division President, Lorie Jones, at the "Skills for Australia's Future" conference in Melbourne. In addition, members and staff have held several meetings with representatives from the education sector and the government's Technology Industry Advisory Council.

The 2007 Year of Women in Engineering was a particularly successful in highlighting the issues facing women in the engineering industry and the continuing need to encourage female students into engineering. The Purple Boot Campaign obtained well deserved media exposure.

The Division's participation in joint events

with kindred bodies also served to highlight the organisation. Events were held with the Steel Institute, IAMA, BEDP, IPWEA, Scitech and National Science Week. We have joined the Chamber of Commerce and Industry and established contact with the Institute of Chartered Accountants.

During the National President's visit in April 2008, meetings were held with Vice Chancellors and Deans from the four universities and with representatives from Central TAFE to discuss accreditation of engineering courses.

Media coverage for the 2007 Engineering Week provided quality profile for the Division. More than 2000 people were involved in activities held during Engineering Week.

Amongst the other major events the Engineering Excellence Awards Program for 2007 attracted 30 entries and the presentation evening in September was well attended. The CELM Breakfast Series attracted a wide audience. Speakers included Hon Julie Bishop.

Objective 2 An Inclusive Professional Team

The total membership for the Division grew to over 11,000. An annual growth rate of over 6% has been maintained for the last four years. Local membership processing, certificate presentations and information packs for new graduates provided personal contact with members.

There was an emphasis on the benefits of volunteering during the year. All office bearers had the opportunity to participate in volunteer training and newsletter articles further described the benefits.

The Division is working with Engineers without Borders to promote the work of this volunteer group. There has been resurgence in the activity of our regional groups and the Division President travelled widely to the regions.

Recognition through our Awards program included the presentation of Student Awards, Engineers Australia medals and individual awards for Professional Engineer of the Year, Young Professional Engineer of

the Year and Engineering Technologist of the Year. Dr John Wager HonFIEAust CPeng was made an Honorary Fellow.

Social and networking events including the Corporate Golf Day, the Fellows Dinner and the Young Engineers Leadership Forum and Sports Day were all well received.

The Face to Face Expo for student engineers has grown each year and in 2008 attracted 90 companies and more than 900 students. The Vacation Employment handbook, now produced on CD, listed more than 80 engineering companies that can provide vacation work for students.

Objective 3 Youth Appeal

Our EngQuest program for primary school students had more than 1200 students from 50 schools participating in 2007. The program was revamped for 2008 to be more web-based. It has been well supported in WA for several years and 2008 is shaping up as another successful year.

The WA Division organised the Science and Engineering Challenge again in 2007 – and expanded the competition to include Bunbury high schools. 1600 year 9 students from 51 schools participated. In 2008 the program has grown to include Kwinana. Over \$100K in sponsorship is raised each year to run this program, which involves more than 120 volunteers.

In addition to these programs, members and staff have participated in numerous careers expos for schools, given presentations to students during National Science Week and to careers advisors and technology teachers.

Objective 4 Chartered Status

This year has seen an increasing recognition of the importance of competency based assessment, Chartered Status and the Professional Development Program (PDP). More than 60 companies in WA now participate in the PDP and over 1000 engineers registered on program. Targeted workshops and professional development sessions have been held for participants. There has also been a sharp increase in the number of Career Episode Reports being submitted.

To meet the increase in activity, the Division now has two National Assessors, each working two days a week. More than 700 Chartered Engineers are on the Division register as Interviewers for Chartered Status applications.

Objective 5 CPD

During the 07-08 year 165 professional development events, 210 committee meetings and 12 fee paying seminars were held. Over 6500 attendees took advantage of the range of activities, which provided 242 hours of CPD. Eminent Speaker presentations, and regional visits added to the program.

A number of major conferences were held – organised by the Society for Sustainability and Environmental Engineering, the Australian Geomechanics Society and the Heritage Society. Planning is also well underway for the national CELM Conference and National Young Engineers Summit to be held in September 2008.

Objective 6 International

We are not required to report on this Objective.

Objective 7 Internal Communications

To improve communication with our members the Division newsletter's style and content was reviewed and updated. Articles profiling the Year of Women in Engineering in 2007 and the Year of the Engineering Team in 2008 were included.

The Division website was restructured and incorporated into the national website. In addition the weekly email to members was restyled and streamlined.

Communication with our volunteers has been enhanced with a comprehensive suite of on-line induction materials and a face to face training session.

Objective 8 A Capable Organisation

\$300,000 was raised in sponsorship in this financial year and non-subscription income represented 49% of the Division's total income. The Division has long term relationships with our Sponsorship Partners, together with special sponsorship for Year of Women in Engineering, Schools Programs, The Science and Engineering Challenge, and Young Engineers activities.

During the first half of 2008 the WA Division Committee was restructured in line with the requirement of the new Division Rules. The Committee comprises 11 members. A large representative body, the Division Advisory Board (DABWA), was also formed, to provide an opportunity for wider discussion and contribution from the Division's many units.

Division staff have had opportunities to undertake relevant training and team building exercises during the year. Regular staff meetings and performance reviews have added to the success of the team for the year.

Western Australia Division Staff

| | |
|---|-----------------|
| Division Director | Janice Lake |
| Deputy Director | Fiona Thorniley |
| Membership Manager | Fran England |
| Marketing and Communications Manager | Tim Davies |
| Technical Program Coordinator | Sharleen Mantle |
| Receptionist/Customer Service Officer | Elisa Triscari |
| Senior Bookkeeper | Sarah Cotterill |
| Manager Industry | Alex Sparvell |
| National Assessor | Keith Collins |
| National Assessor | Peter Brearley |
| Schools Program Coordinator | Kylie Ralph |
| Science and Engineering Challenge Project Manager | Beatriz Clark |

President's Report

Lorie Jones
FIEAust CPEng



In my President's acceptance speech in December last year, I foreshadowed three areas of focus for 2008: Sustainability, Capacity Building and Team Building. The following is my personal assessment of the themes and achievements of 2007-08 for the WA Division.

My primary focus area, **Sustainability**, built on the initiatives of the National President's Sustainability Committee, and carried forward the momentum of the International Conference on Engineering Sustainability held in November 2007 (SSEE-2007). Following a sustainability workshop facilitated by Engineers Australia in early April 2008, it was proposed that a series of market sector discussion papers be prepared to provide a sustainability focus for WA engineers (see May Foreword of WA Engineering Journal). The first of these discussion papers - *Transport for Sustainable Cities* - was debated in front of a packed audience on 11 August (refer to synopsis in July Foreword). The **Sustainable Transport Forum** was sponsored by the Transport Panel and the Society for Sustainability and Environmental Engineering. Other sector discussion papers are under consideration.

There are many elements of sustainability - the most prominent being climate change. Some of our members remain sceptical of the climate change premise, particularly the theory that global warming is linked to anthropogenic carbon dioxide emissions. As a Learned Society, I believe that Engineers Australia should accommodate healthy scepticism and facilitate open discussion of climate change policy. However, in accordance with the Precautionary Principle, engineers should play a leading role in planning and designing for adaptation to potential climate change impacts. Many of the mitigation strategies for greenhouse gases will also lead to more sustainable outcomes (refer to May Foreword). As WA Division President I was invited to participate in the Governor's Science Forum series which has focussed on Climate Change. These forums are

making an important contribution to science communication and community education and I applaud the patronage of his Excellency Dr Ken Michael, and the facilitation of Dr Lyn Beasley.

With respect to my second focus area, **Capacity Building**, Australia's sustainable future will rely to a large extent on engineering and technology, and there is an urgent need to strengthen our engineering skills base and address declining interest in engineering and technology amongst domestic Australian students.

As WA Division President I was an invited speaker at the National conference entitled "*2nd Annual Science and Engineering: Skills for Australia's Future*" on 11 and 12 June (refer to synopsis in July Foreword). As an outcome of that conference, the WA Division held an **Education Forum** on 21 July which attracted participants from universities, TAFE, high schools, government and industry. A range of ideas were put forward which Engineers Australia, together with our partners in industry and education, can use to increase the number of domestic students taking the enabling subjects that can lead to a career in engineering, and thus enhance our pool of "home grown" engineers. As WA Division President I have been invited to a number of student presentation and award ceremonies at all four universities and have greatly valued that interaction.

The engineering profession continues to have a low profile in the public mind. This lack of visible recognition has directly contributed to the current shortage of engineers and technologists, and remains a critical factor in career choices made by students and their parents (see August Foreword). **Australian Engineering Week** is one strategy for raising awareness of the engineering profession and the WA Division hosted a series of events this year between 4th to 10th August tailored to young students. The **Engineering Excellence Awards** program provides another platform for raising profile, by identifying, recognising and promoting excellence in the science and practice of engineering, and highlighting the contribution of engineers to the economy, to the community and to the environment. The 2007 Excellence Awards held in November last year was the biggest awards program ever held for the engineering profession in Australia, with the 2007 WA Division Award Winner **Hismelt** taking out

an overall national prize. Thirty excellent award submissions were entered this year in Western Australia and the 2008 WA Division Award Winner **Dampier Port Upgrade** will represent Western Australia at the National Awards on 19 November.

At the 2008 **Annual Fellow's Dinner** on 23 July, Professor Peter Quinn of UWA delivered an inspiring talk on the Square Kilometre Array - this iconic high profile project will surely capture the imagination of West Australians, both young and old, and motivate more students to study mathematics, science and information technology - thus increasing the pool of high school students with engineering enabling subjects. Celebrating our Engineering Heritage can provide other opportunities to increase our public profile. This year the Heritage Panel has nominated the Goldfields Water Supply Pipeline and the Mitchell Freeway for important heritage awards.

Engineers Australia and our industry partners have a significant role to play in capacity building: by attracting young West Australians to consider careers in engineering and technology; by developing new graduate engineers through the **Professional Development Program**; and by providing **Continuing Professional Development** through our many active panels and groups. Importantly, through its Country Group structure, Engineers Australia can provide professional development and networking opportunities for engineers and technologists working in remote and regional areas. Both the Pt Hedland and Newman Country Groups are striving to revitalize their regional groups and the interest and enthusiasm expressed by the participants is encouraging (see October Foreword). As a positive model, the South West Group of Engineers Australia is our most active regional group, and actively participated in the SciTech Regional Science Awareness Festival (early September), providing an opportunity for regional high school students and teachers to familiarize with local industries, engineering education opportunities and current trends in regional development (see October foreword).

The technical CPD program delivered through the WA Division by our active panels, groups and societies has breadth, depth and relevance, and reflects the high level of activity in WA. All of these professional development activities rely on

hard working volunteers to make things happen, and I thank all our Professional Volunteers and their employers for contributing to the advancement of our profession (refer March Foreword on Volunteering with Engineers Australia).

Some of the governance initiatives which have been discussed this year can also be related to the assurance of skilled capacity, including moves towards registration of engineers and the development of a new **Engineers Act** for Western Australia (see June Foreword) and the promulgation of a **Professional Standards Scheme** for engineers.

My third focus area for 2008 has centred around **Team Building**, in recognition of the **Year of the Engineering Team**. A number of initiatives and promotional activities have been delivered by the WA Division to celebrate the important contribution of engineering technologists

and associates within a balanced and supportive engineering team. The Theme of 2008 has also provided opportunities to extend the "Engineering Team" concept to embrace the "non-engineering" professions such as scientists, architects, planners and economists.

As WA Division President, I've fostered links with the Urban Development Institute of Australia (31 July), the Australian Institute of Quantity Surveyors (22 May), the Australian Institute of Architects (13 October), and the Australian Water Association. Both the **Transport Forum** and the **Education Forum** attracted a multi-disciplinary audience and were excellent examples of Engineers Australia taking a leadership role in breaking down professional silos and finding pathways to sustainability. We need to foster a multidisciplinary team approach to address the challenges that confront our society, and the **Year of the Engineering Team** has provided a strong foundation for reinforcing that.

The themes of sustainability, capacity building and team building have underpinned my regional tours and site visits as President. I would like to express my appreciation for the hospitality afforded me on these visits by regional committee members and/or corporate hosts: **Peel Region** (29 April: *Kwinana Industries Council; WaterCorp Kwinana Desalination Plant; RTIO HiSmelt Kwinana Plant*; 30 April: *Australian Marine Complex*); **Port Hedland** (29 August: *SKM/Fluor JV & BHPIO Nelson Point and Finucane Island facilities; Pt Hedland Port Authority*); **Bunbury Region** (27 August: *Millenium Inorganic Chemicals Kemerton Titanium Dioxide Pigment Plant*; October 16: *WaterCorp Binningup Desalination Plant site*; October 17: *IHI Engineering Australia & Griffin Bluewaters Power Station; Bunbury Port Authority; Southwest Development Commission*; 27 October: *Main Roads WA Perth Bunbury Highway*) and **Newman** (November 14: *BHPIO Rapid Growth Project*).

Western Australia Division Committee

| | |
|---------------------------|---|
| President | Ms Lorie Jones FIEAust CPEng |
| Past President | Mr Jim Brown FIEAust CPEng |
| Senior Vice President | Mr Chris Fitzhardinge FIEAust CPEng |
| Junior Vice President | Prof Tony Lucey FIEAust |
| National Councillor | Mr Barry Tonkin FIEAust CPEng |
| Chemical College Rep | Mr Roger Kelson FIEAust CPEng |
| Electrical College Rep | Mr Albert Koenig FIEAust CPEng |
| Structural College Rep | Mr Rob Rowbottam FIEAust CPEng |
| Biomed College Rep | Mr Ed Scull FIEAust CPEng |
| ITEE College Rep | Mr Bob Broadway FIEAust CPEng |
| Mechanical College Rep | Arun D'Souza FIEAust CPEng (Jul-Aug 07) |
| Mechanical College Rep | Dr Leslie Pyke MIEAust CPEng (Jan-May 08) |
| Environmental College Rep | Ms Alice Turnbull GradIEAust |
| Young Engineers Rep | Mr Andrew Dedman GradIEAust |
| Women in Engineering Rep | Ms Melissa Marinelli MIEAust |
| Associates Rep | Mr Ross Magno OFIEAust CEngO |
| Technologists Rep | Mr Will Neethling TMIEAust CEngT |
| Committee member | Mr John Phillips FIEAust CPEng |
| Committee member | Prof Mark Bush FIEAust CPEng |
| Committee member | Mr Paul Deuchar GradIEAust |
| Committee member | Mr Barun Dutta FIEAust CPEng |
| Committee member | Mr Rajendra Kurup FIEAust CPEng |
| Committee member | Dr Geoff Roy FIEAust CPEng |
| Committee member | Mr Lindsay Tilly FIEAust CPEng |
| Committee member | Mr John Skevington FIEAust CPEng |

During the year the WA Division Committee passed a motion agreeing to a new Division Committee structure in line with the new Division Committee Regulations. The new Committee replaced both the existing Division Committee and the Executive Subcommittee. The Committee also agreed that for the remainder of the 2008 year an Interim Division Committee would be formed from the existing committee.

In addition a large representative Division Advisory Board (DABWA) was formed. While the DABWA does not have governance powers, its Terms of Reference include strategic planning. The Board comprises the Chairpersons of each unit, group and panel and subcommittee within the Division, and members of the Division Committee.

Interim Division Committee

| | |
|----------------------------|-------------------------------------|
| President | Ms Lorie Jones FIEAust CPEng |
| Past President | Mr Jim Brown FIEAust CPEng |
| Senior Vice President | Mr Chris Fitzhardinge FIEAust CPEng |
| Junior Vice President | Prof Tony Lucey FIEAust |
| Advisory Board Chairperson | Mr Bob Broadway FIEAust CPEng |
| Young Engineers Rep | Mr Andrew Dedman GradIEAust |
| Women in Engineering Rep | Ms Melissa Marinelli MIEAust |
| Associates Rep | Mr Ross Magno OFIEAust CEngO |
| Committee Member | Mr Barry Tonkin FIEAust CPEng |
| Committee Member | Mr Rob Rowbottam FIEAust CPEng |
| Committee member | Prof Mark Bush FIEAust CPEng |

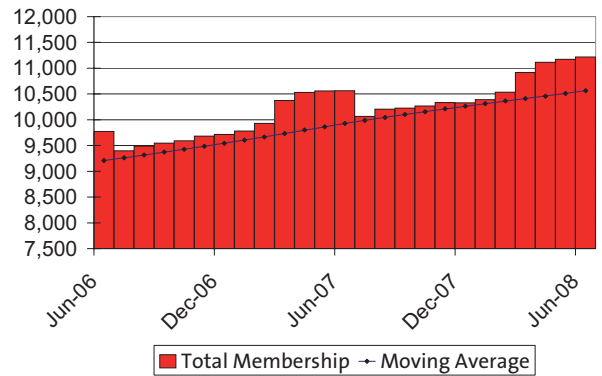
Membership Statistics

Total Membership increased by 655 members over the 07-08 Financial Year to 11,218. The moving average percentage increase over the Year was 6.4%.

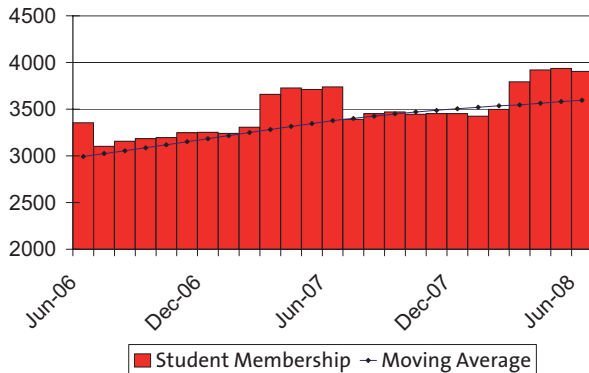
Qualified Membership increased by 489 members over the 07-08 Financial Year to 7,314. The moving average percentage increase over the Year was 6.4%.

Student Membership increased by 166 members over the 07-08 Financial Year to 3,904. The moving average percentage increase over the Year was 6.5%.

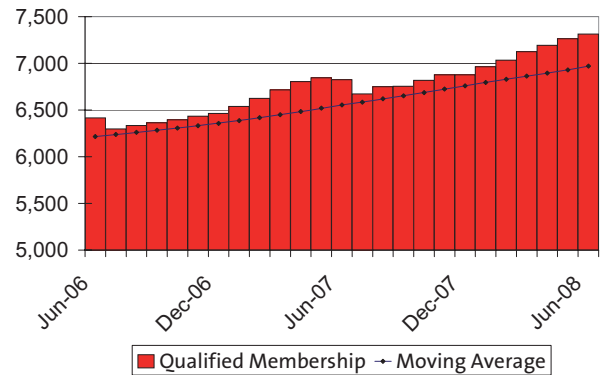
Total Membership



Student Membership



Qualified Membership



Qualified Membership Grade Comparison

| Grade \ Financial Year Ending | Hon FIEAust CPEng | FIEAust CPEng | MIEAust CPEng | OMIEAust CEngO | TMIEAust CEngT | FIEAust | MIEAust | OMIEAust | TMIEAust | GradFIEAust | GradOMIEAust | GradTMIEAust |
|-------------------------------|-------------------|---------------|---------------|----------------|----------------|---------|---------|----------|----------|-------------|--------------|--------------|
| June 06 | 9 | 490 | 2702 | 13 | 9 | 37 | 982 | 191 | 36 | 1758 | 108 | 18 |
| June 07 | 9 | 495 | 2691 | 15 | 10 | 39 | 1254 | 216 | 52 | 1892 | 100 | 17 |
| June 08 | 10 | 496 | 2675 | 15 | 12 | 43 | 1571 | 213 | 59 | 2032 | 103 | 18 |



2007 WA Professional Engineer of the Year Gary Crisp FIEAust CPEng and His Excellency Dr Ken Michael AC, Governor of Western Australia



The Face to Face Expo for Young Engineers, held in April 2008 attracted over 900 students and 80 companies



Delegates on an industry tour at the 2007 SSEE International Conference on Engineering Sustainability

Financial Statement

Engineers Australia WA Division Statement of Financial Position as at 30th June 2008

| | 30-Jun-08 \$'000s | 30-Jun-07 \$'000s |
|--------------------------------------|----------------------|----------------------|
| CURRENT ASSETS | | |
| Cash Assets | 1 | 1 |
| Other Financial Assets | 758 | 635 |
| Other | 14 | 3 |
| TOTAL CURRENT ASSETS | 773 | 639 |
| NON CURRENT ASSETS | | |
| Fixtures, Plant & Equipment | 25 | 35 |
| TOTAL NON CURRENT ASSETS | 25 | 35 |
| TOTAL ASSETS | 798 | 674 |
| CURRENT LIABILITIES | | |
| Provisions | 339 | 222 |
| TOTAL CURRENT LIABILITIES | 339 | 222 |
| NON CURRENT LIABILITIES | | |
| Provisions | 12 | 19 |
| TOTAL NON CURRENT LIABILITIES | 12 | 19 |
| TOTAL LIABILITIES | 351 | 241 |
| NET ASSETS | 447 | 433 |
| MEMBERS FUNDS | | |
| TIF funds | 275 | 256 |
| Reserves | 172 | 177 |
| TOTAL MEMBER FUNDS | 447 | 433 |

Engineers Australia WA Division Statement of Financial Performance for the Year Ended 30th June 2008

| | 2007/8 \$'000s | 2006/7 \$'000s |
|--|-------------------|-------------------|
| REVENUE FROM ORDINARY ACTIVITIES | | |
| Division Allocation | 748 | 684 |
| 1. Public Role & Professional Standing | 238 | 248 |
| 2. An Inclusive Professional Team | 38 | 45 |
| 3. Youth Appeal | 72 | 80 |
| 4. Chartered Status | 4 | 13 |
| 5. Continuing Professional Development | 171 | 223 |
| 6. International Reach & Influence | 0 | 0 |
| 7. Internal Communications | 3 | 5 |
| 8. A Capable Organisation | 78 | 88 |
| Total Revenue from Ordinary Activities | 1352 | 1386 |
| EXPENSES FROM ORDINARY ACTIVITIES | | |
| Division Allocation | 0 | 0 |
| 1. Public Role & Professional Standing | 491 | 501 |
| 2. An Inclusive Professional Team | 121 | 119 |
| 3. Youth Appeal | 110 | 104 |
| 4. Chartered Status | 27 | 34 |
| 5. Continuing Professional Development | 315 | 329 |
| 6. International Reach & Influence | 0 | 0 |
| 7. Internal Communications | 135 | 131 |
| 8. A Capable Organisation | 139 | 160 |
| Total Expenses from Ordinary Activities | 1338 | 1378 |
| Net surplus / (deficit) from ordinary activities | (5) | (49) |
| TIF fund Adjustment | 19 | 57 |
| Total changes in member funds | 14 | 8 |



The Hismelt Kwinana Plant Project was Overall Winner at the 2007 WA Engineering Excellence Awards. L-R: Stephan Weber, Jim Brown, Matthew Cobbett from Principal Partner Fluor and His Excellency Dr Ken Michael AC, Governor of Western Australia



Engineers Without Borders – Wind Turbine Challenge QV1 Foyer during Engineering Week in 2007



Time trials on the back to the future activity conducted by Lieutenant Miles Le Ray - RAAF Flight Lieutenant and students at the 2007 Science & Engineering Challenge

Engineers Australia Western Australia Division would like to acknowledge the support of its Partners & Sponsors

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