



MINUTES

ANNUAL GENERAL MEETING OF MEMBERS 2011

June 3, 2011, 7:30 – 9:00 AM PDT

Salon Pommard

The Sutton Place Hotel

845, Burrard Street, Vancouver, BC

MEMBERS IN ATTENDANCE

| | | |
|-----------------------|-----------------------|-------------------|
| Gord Agnew | Said Easa* | Fred Otto |
| Andreas Athienitis* | Henry (Hank) Edamura* | Joseph C. Paradi |
| Michael A. Ball | Nabil Esmail | Kenneth Putt |
| John M. Beck* | Robert L. Evans | Doug Reeve |
| Gouri S. Bhuyan | Sheldon Green | Gamal Refai-Ahmed |
| Roy Billinton | Ralph Haas | Anthony Rosati* |
| Jim Carter | Wolfgang J. R. Hoefer | David Segó* |
| Michael Charles | Geza Joos | Lawrence Staples |
| Noel A. Cleland | Brenda Kenny | Kim Sturgess |
| Louis Cloutier* | Richard Kerekes | Dawn Tattle* |
| J. Douglas Dale* | Mohamed Lachemi* | Tom Tiedje* |
| Anton Ellis Davies* | Wenyuan Li* | Lorne Trottier |
| Jacques de Guise* | Moyra McDill | Reg Weiser |
| W. J. Murray Douglas* | Axel Meisen | Weihua Zhuang* |
| Robin Drew* | John Nenniger | |

(* = New Member)

1. OPENING REMARKS

President **Michael Charles** opened the meeting at 7:30 AM, and extended a warm welcome to all members, old and new to the 25th Annual General Meeting of the Canadian Academy of Engineering. He noted that since 1987 the Academy has grown from its 44 founding members – to some 332 active members and 140 emeritus members, and 3 honorary members, for a total on 475 at this time. We believe that our members clearly include many of the country's most accomplished engineers, and we salute their dedication to the engineering profession. The President introduced the head table participants – President-Elect, **Kim Sturgess**, Past-President **Axel Meisen**, Secretary-Treasurer **Moyra McDill** and **Michael A. Ball**, Executive Director.

2. RECOGNITION OF DECEASED FELLOWS

President Charles asked the assembly to pause for a moment to recognize Fellows who we are aware of who have passed away since our last AGM:
(PowerPoint slide with the names of the deceased Fellows was projected on screen)

Jack I. Clark, elected in 1992, died on September 4, 2010.

Carl B. Crawford, elected in 1994, died on August 28, 2010.

D. Andrew Eisenhauer, elected in 1992, died on October 28, 2010.

Nicolas D. Georganas, elected in 1997, died on July 22, 2010.

Robert L. Papineau, elected in 2000, died on March 23, 2011.

3. QUORUM DETERMINATION

The President noted that our By-Laws require a minimum of 20 members or 20% of the active membership (whichever is less) to constitute a quorum. He observed that there were clearly more than 20 active Fellows present, and hence declared a quorum. He reminded attendees that while Emeritus Members are welcome to participate fully in the discussion and to address the meeting, they are **NOT** eligible to cast a formal vote, or to propose or second motions. He requested participants to identify themselves, when making motions or addressing the meeting, to ensure that we have an accurate record of the meeting.

4. APPROVAL OF AGENDA

The President invited any additions or modifications to the agenda distributed (Attach. 4). In the absence of any changes, it was moved by R. Evans, seconded by D. Reeve that the Agenda as distributed be approved. CARRIED.

5. APPROVAL OF MINUTES – AGM 2010

It was noted that the Minutes from the previous Annual General Meeting in Toronto on June 4, 2010, had been available on the CAE website for an extended period of time, and were also included in the folders for this meeting. It was moved by J. Paradi, seconded by G. Refai-Ahmed that the Minutes for AGM 2010 be approved. CARRIED.

6. REPORT OF PRESIDENT – 2010/2011

President M. Charles presented highlights from his complete report set out below which had been distributed to the members present at the Annual Meeting of the Canadian Academy of Engineering (CAE):

The year commenced with the Symposium "Low Emission Electricity Generation, Distribution

and Use in Transportation" held in Toronto following our 2010 Annual General Meeting. The goal was to highlight the inevitable trend towards electrification of energy systems with the concomitant priority to minimize the output of carbon dioxide during the generation of electricity by using non-fossil renewable sources and by capturing and sequestering carbon dioxide produced from burning fossil fuels. Large scale grid expansion is not only a technical matter for it depends on gaining access to rights-of-way with the concurrence of local communities spread out over considerable distances. The use of electrically driven vehicles and trains will do much to reduce carbon dioxide and other emissions from the transportation sector. The Symposium closed with a long-term look at the prospects for electricity generation from nuclear fusion.

During the Symposium, Past President Axel Meisen announced the launch of the Trottier Energy Futures Project (TEFP) under a partnership between the David Suzuki Foundation, the Trottier Family Foundation and the Canadian Academy of Engineering. This announcement was followed by a formal press conference and the distribution of background documentation at the World Energy Congress held in Montreal in September. Key goals of the TEFPP are to show how Canada could become a model for the sustainable generation, distribution and use of energy, and could reduce greenhouse gas emissions by 80 per cent by 2050 -- an enormous challenge. Consistent with the charter of the TEFPP, your President serves on the Project Board and Michael A. Ball as Executive Director of our Academy serves on the Management Board. Both of us have spent considerable time working with our counterparts in the David Suzuki Foundation and Lorne Trottier to put the TEFPP on a sound course. Several other Fellows of our Academy, including Bob Evans, John Leggat, Richard Marceau, Clem Bowman, and Axel Meisen have provided invaluable advice during the year. Tom Gouldsborough initially served as Project Manager and has been succeeded by Ralph Torrie.

In parallel with the TEFPP, Academy Fellows Richard Marceau and Clem Bowman, and colleagues continue to pursue initiatives flowing from the work of the Energy Pathways Task Force. One of these initiatives is to refocus on the potential for expanding the Canadian grid with emphasis on east-west connectivity.

In an attempt to broaden the activities of the Academy, a working group is exploring the potential for collaboration with Innoventures Canada (I-CAN) which is a national consortium of Canada's top research and technology deployment organizations, including the National Research Council. Technical areas being actively explored are infrastructure and water supply for mid-size and small communities, particularly in Northern Canada. This is another example of how the expertise of our Fellows could potentially be brought to bear on matters of some urgency by engaging with another organization having similar goals.

Our Academy continues to enjoy good relations with the Council of Canadian Academies (CCA) with former Presidents John McLaughlin and John Leggat serving on its Board, and Tom Brzustowski serving as Chair of its Scientific Advisory Committee. We help identify candidates for expert panel assessments on matters referred to the CCA by Federal departments. Furthermore, under a new agreement, the Academy's head office is now co-located with that of the CCA.

We continue to participate in the Canadian Engineering Leadership Forum (CELFF) and in the

Partnership Group for Science and Engineering (PAGSE) which arranges regular presentations for parliamentarians over breakfast. Academy Fellow Denis Mitchell spoke recently on "Failure is not an option: lessons for making Canada's buildings and bridges safer".

Following the Convocation in Calgary in 2009 of the International Council of Academies of Engineering and Technological Sciences (CAETS), John Leggat served as its President through to the 2010 Convocation held in Copenhagen on the theme "Sustainable Food Systems - Toward Food for All" which was attended by your President and Executive Director. Robert Evans represents the Academy in the CAETS project "Deployment of Low Emissions Technologies for Electric Power Generation in Response to Climate Change". The 2011 CAETS Convocation will be held in Mexico City on the theme "Engineering Analysis and Management to Reduce Risks" in July. Our Academy will be represented by Past President Axel Meisen.

Our Academy provided modest financial support for the workshop arranged by the Canadian Committee on Women in Engineering (CCWE) to mark the 20th Anniversary of its founding. The chair of CCWE is Academy Fellow Monique Frize who has pressed relentlessly for a stronger presence for women in our profession. She has recently published the book "The Bold and the Brave: A History of Women in Science and Engineering". She received the 2010 Ontario Professional Engineering Awards (OPEA) Gold Medal.

Nominations of outstanding engineers to Fellowship in the Academy are made in the late Fall each year. The Fellowship Committee, currently ably chaired by Michael Avedesian reviews the full documentation submitted with each nomination. With over seventy nominations in the last cycle, the Committee held three meetings by teleconference to complete its work. At the present time, our by-laws limit the number of Fellows that may be admitted in any one year to a maximum of 50. Given the outstanding quality of the nominations, the Committee selected fifty nominees to be placed on the ballot to be completed by existing Fellows of the Academy. Forty-five received the required two-thirds positive votes from those actually voting and were invited to attend the Gala Dinner here in Vancouver yesterday evening. Given the relatively large number of outstanding nominations received during the last two cycles and the growing pool of engineering talent in Canada, the Board, acting on the advice of the Fellowship Committee, has recommended that the maximum number that may be admitted in any one year be raised to 75. This matter will be reconsidered in the future.

Having served on the Fellowship Committee for two cycles, I have become concerned that a number of nominations highly rated by the Committee do not receive sufficient positive votes from the Fellowship to be accepted. In the ballot process, Fellows do not see a full nomination and are asked to make their decision on the basis of a citation submitted as part of the nomination. I urge nominators to make sure that the citations they provide do reflect the full extent of the attributes of their nominees, so as to avoid such a "disconnect" in the future. Since two-thirds of the votes cast must be positive for a nomination to be approved, abstentions, however motivated, essentially count as negative votes. This matter will be reviewed and clarified prior to the 2012 vote.

The Fellowship Committee and your Board are conscious of the need to maintain an appropriate balance in our membership, as among the regions of Canada, men and women, and industry, government and academe. The Ad Hoc Committee on Membership Balance

chaired by Past President Axel Meisen with Michael Avedesian, John Leggat, Moyra McDill, Ravi Ravindran, and Michael A. Ball has explored these issues and has just completed a report with recommendations which the Board has received and reviewed.

In February, 2011 the Academy made a submission to the Expert Panel leading the Review of Federal Support to R&D, a panel looking at support for industry/business oriented research and development with a view to improving Canada's performance in innovation. We emphasized the importance of engineering design in the innovative process and recommended that it be included in eligible activities under the SR&ED tax credit.

A related issue in my mind is the widespread use of the term "science and technology", rather than "science and engineering". Technology is inanimate in that it exists and can be used. Engineering is the process by which technology is developed and involves men and women designing equipment, facilities, services and devices, and making difficult decisions around sustainability, economics, safety and security. We need to work hard to gain recognition for creative engineering being an essential component of the innovation chain.

Part of the problem may be a lack of engineers in prominent leadership positions who are able to command media attention in the context of discussions of the positive engineering contributions to wealth generation for society. So much is taken for granted until something goes wrong and engineers find themselves in a defensive mode while people who have little appreciation of the need to balance risk and cost in the design process find it easy to criticize. In an attempt to overcome this shortcoming, Academy Fellow Douglas Reeve, who is Director of the newly formed Institute for Leadership Education in Engineering at the University of Toronto has developed a proposal on "Leadership by Engineers in Business Enterprises" with the goal of developing a new breed of engineers who are at ease in speaking out publicly on important issues. His plans already have support from the corporate sector and more will be communicated to Fellows of the Academy in the future.

I am not unique among Presidents in concluding that our Academy falls short of its potential. Over the years, we have seen a series of ambitious strategic plans developed and endorsed by the Board. However, we have simply lacked the capability to follow through while making sure that our basic processes are protected and acted upon. We need to find ways to increase our resource base and to engage our Fellows more broadly in issues that affect the future of Canada.

The predominant source of income to the Academy continues to be the annual dues of our Fellows. This income, even augmented by the earnings on our invested funds, now no longer quite covers the essential operating expenses of the Academy, primarily our head office in Ottawa with just two staff – the Executive Director and the Office Manager. Both work hard to keep costs as low as possible in carrying out the essential business of the Academy, but with little scope to plan and promote new initiatives. In my view, we have to give serious thought to putting in place a corporate support program with the goal of at least doubling our annual revenue.

We have a large country with obvious regional differences and priorities. With the steady increase in the number of Fellows, we now have the potential to form groupings of Fellows who

could meet between annual meetings and formulate projects of regional or national importance which would attract financial support. The Energy Pathways initiative has been, and still is, a fine example.

Today's Symposium "Canada as a Sustainable Energy Superpower: Realizing the Vision", ably organized by a committee led by our President Elect, Kim Sturgess will continue the theme of the collision between energy and the environment, including climate change. It will incorporate progress and perspectives on the Trottier Energy Futures Project.

I close by thanking the Members of the Board for their support and contributions to the discussion of issues facing the Academy; in particular, I thank Axel Meisen, who as Past President is leaving the Board and has worked hard in the best interests of our Academy. I also thank the members of the Fellowship Committee who spent many hours reviewing the nominations for Fellowship in our Academy; in particular Robert Evans and Ian Jordaan who are both leaving the Committee after several years of service. I am grateful to Richard Marceau, as chair of our New Directions and Public Policy Committee who has given generously of his time. And I must recognize our Executive Director, Michael A. Ball, who having indicated a year ago that he wished to step down from the position has, in the absence of a successor, continued to provide outstanding service. Similarly, our Office Manager, Valerie Broadfoot is dedicated to providing prompt and efficient support.

Finally, it has been an honour to serve as President. I wish my successor, Kim Sturgess all the very best in her role as our new President. I know she is enthused at the prospect of advancing the best interests of our Academy. Please respond positively to her calls for support.

Respectfully submitted

Michael E. Charles, FCAE, FCIC, FEIC, Ph.D., P.Eng.

7. FINANCIAL

The Secretary-Treasurer, M. McDill and the Executive Director, M. A. Ball, presented the financial reports to the membership.

- **Financial Statements 2010**

It was noted that these statements have been prepared by our auditors (Marcil-Lavallée) for the year just past, and that they are contained in the Agenda folders. The net result for 2010 was an operating loss \$14,381, this was due to Directors' increased travel expenses, moving expenses, increased remuneration for the Executive Director, and new IT services. It was moved by M. McDill, seconded by R. Evans that the audited Financial Statements for 2010 be approved. CARRIED.

- **Treasurer's Report / Budget 2011**

The Secretary-Treasurer and the Executive Director also presented the Budget 2011 (Attach. 7b), which was previously approved by the Board of Directors. It is provided for the information of members, and projects essentially a break-even situation for 2011 operations.

- **Appointment of Auditors 2011**

It was noted that we continue to receive good service from our auditors/accountants, Marcel-Lavallée, and the recommendation of the Board is that we reappoint them for the year 2011. It was moved by M. McDill, seconded by K. Putt, that Marcil Lavallée be appointed as CAE auditors for 2011. CARRIED.

Secretary-Treasurer M. McDill thanked the Executive Director M. A. Ball for his diligent handling of the Academy's financial affairs.

8. ELECTION OF DIRECTORS AND OFFICERS – 2011/2012

The President noted that the Nominating Committee had provided a recommended slate of proposals for 2011/2012, and that these had been endorsed by the Board of Directors.

Relative to Officers/Directors-at-Large, the following names had been proposed:

For Officers:

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| <i>President</i> | <i>Kim Sturgess</i> |
| <i>President-Elect</i> | <i>Moyra McDill</i> |
| <i>Secretary-Treasurer</i> | <i>Richard Marceau</i> |
| <i>Past President</i> | <i>Michael Charles</i> |

For Directors-at-Large:

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| <i>Continuing:</i> | <i>Michael Avedesian</i> |
| <i>Continuing:</i> | <i>Robert Evans</i> |
| <i>Continuing:</i> | <i>Pierre Lortie</i> |
| <i>Continuing:</i> | <i>Bert Wasmund</i> |
| <i>New:</i> | <i>Jacques Lyrette</i> |
| <i>New:</i> | <i>Eugene Polistuk</i> |
| <i>New:</i> | <i>Larry Staples</i> |

There being no alternative nominations from the floor, it was moved by M. McDill, seconded by B. Kenny, that this slate of officers/directors be approved. CARRIED.

Relative to membership of the Fellowship Committee the following proposal had been received:

For Fellowships Committee:

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|---------------------------|--------------------------|
| <i>Chair (Continuing)</i> | <i>Michael Avedesian</i> |
| | <i>President</i> |

President Elect
Secretary/Treasurer

Members-at-large

Continuing: Etienne P.D. Mansard

New: David Coleman

New: Don Whitmore

It was moved by M. McDill, seconded by B. Kenny, that this slate of members for the Fellowship Committee be approved. CARRIED.

9. TRANSFER OF POWERS TO INCOMING PRESIDENT 2011/2012

President Charles invited incoming President K. Sturgess to address the members. K. Sturgess thanked the outgoing President M. Charles and Past-President A. Meisen for their leadership during the past two years, and the previous Board Members for their service to the Academy. She said that it was truly an honour and privilege to serve as President of the Canadian Academy of Engineering, noting that she would do her best to move the Academy to new heights and to work diligently towards its objectives with the help of the new Board, the Executive Director and the Office Manager. She noted that her Job 1 would be stabilizing participation in the Trottier Energy Futures Project (TEFP) and moving ahead with new initiatives from the Energy Pathways Task Force. Job 2 will include new direction and a new initiative for the Strategic Plan; engaging industry; the working group on Membership Balance; improving communications; the 25th Anniversary; building on relationship with the Council of Canadian Academies (CCA), the Canadian Engineering Leadership Forum (CELf); searching for a new Executive Director (noting inputs would be welcome); engage members from across Canada through regional events; and setting up a “Brains Trust” to engage younger membership and encourage more industry participation. She stated “that you will be called”.

10. ANNUAL GENERAL MEETING ARRANGEMENTS – 2012

K. Sturgess indicated that the Board of Directors had recommended that the next Annual General Meeting be held in June 2012 in Ottawa, subject to confirmation. This will be organized under the leadership of President-Elect M. McDill.

11. OTHER BUSINESS

There were no further items of business or comments from the floor. President K. Sturgess then proposed a vote of thanks to retiring Officer: Past-President A. Meisen, Directors: M. Lemay, N. Mathis, and retiring members of the Fellowship Committee, R. Evans and I. Jordaan, who each received a copy of the book “*The World on Edge*” by Lester Brown. President Sturgess then expressed her appreciation to the CAE Executive Director, M. A. Ball, and CAE Office Manager, V. Broadfoot, for their continuing dedicated efforts on behalf of the academy. She noted that a more formal appreciation of the Executive Director will be made at the 2012 AGM in Ottawa.

12. ADJOURNMENT

President K. Sturgess reminded all members that have registered for the Symposium that it would start directly after the AGM in the Le Versailles Salon A on the 2nd floor of the hotel. There being no other items of business she thanked members for attending the business meeting and declared a CONSENSUS for adjournment at 8:47 AM.

INDUCTION OF NEW FELLOWS 2011 (Added for the record)

The Induction of New Fellows did not take place during the actual Annual Business Meeting on June 3rd but took place prior to dinner on June 2nd, 2011 in the Le Versailles Ballroom at the Sutton Place Hotel, Vancouver. The President M. Charles noted that 26 of the 45 newly-elected members were able to be present at the Induction Ceremony. He then called upon President-Elect K. Sturgess to read the citations (which were included in the Induction Ceremony Program at each table setting and were also shown on the projection screen) as each inductee came forward, received their framed certificate from the President and had a photograph taken, and then signed the "Academy Members' Register" and received a CAE pin. Those present were:

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| Andreas K. Athienitis | W. J. Murray Douglas | Jean Paris |
| John M. Beck | Robin A. L. Drew | Gerry Price |
| Dennis E. Becker | Said Easa | Anthony Rosati |
| John Bianchini | Henry N. Edamura | H. I. H. Saravanamuttoo |
| Louis Cloutier | Peter Halsall | David C. Sego |
| David Colcleugh | Catherine Karakatsanis | Dawn Tattle |
| J. Douglas Dale | Mohamed Lachemi | Tom Tiedje |
| Anton Davies | Wenyuan Li | Weihua Zhuang |
| Jacques A. de Guise | Thomas Oxland | |

The President also reported that 19 other Fellows have been formally accepted for the year 2011, and will receive their certificates and members pin by mail. The additional Fellows are:

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|------------------------|------------------|-------------------|
| Richard Boudreault | John A. Goldak | Arun K. Misra |
| Ron Britton | Ani Gole | Gino Palumbo |
| Allan Carswell | Tom Jenkins | Robert Schober |
| Liuchen Chang | Tibor Kokai | Sirish L. Shah |
| George A. E. Cook | John Lee | Christopher Young |
| Elizabeth Anne Edwards | Martin D. Levine | |
| Thomas Zoltan Fahidy | John McPhee | |