FECC 2021 ANNUAL GENERAL MEETING: MINUTES

Prepared by Axel Meisen

Date: Wednesday, Sep 15, 2021, 15:00 MDT
Venue: Virtual meeting via Zoom
Note: Due to technical difficulties, the Board Secretary was unable to keep a detailed record of the AGM. These Minutes are a reconstruction. Details and corrections are invited in the 2022 AGM. Future meetings will, with permission of participants, be recorded electronically.

		Lead
1.	**Call to order:** The Call was followed by confirmation of quorum	Axel Meisen (Interim President)
2.	**Adoption of agenda:** The agenda (as provided with the Notice of Meeting) was moved, seconded, and approved unanimously	Axel Meisen
3.	**Adoption of FECC 2020 AGM Minutes** The Minutes (as distributed), upon being moved and seconded, were approved unanimously.	Abra Mueller (Secretary)
4.	**Business arising from the Minutes and not otherwise covered in the Agenda:** None	Axel Meisen
5.	**Report of the Interim President** The report (Attachment #1) was presented and discussed. There were no suggestions for changes.	Axel Meisen
6. **a.** **b.**	**Treasurer's Report** **Year End Financial Statement for 2020-2021** (Attachment #2) The Statement was received and discussed, without suggestions for changes **Budget for 2021-2022** (Attachment #3) The Budget was discussed, moved, and seconded before being approved unanimously	Brian Kryska (for Kirk Michaelian)
7. **a.**	**Nominating Committee Report** **Nominations for 2021-2022** (Attachment #4) The report was presented, discussed, and additional nominations were invited. There were none. The nominations were moved, seconded, and approved unanimously.	Glenn Stowkowy (Past President & Nomination Committee Chair)

b.	**Special Resolution for Honorary Membership** In recognition of extraordinary contributions to fusion science and development in Canada, support for FECC and its predecessor organizations, Glenn moved and Brian seconded the nomination of Prof. Allan Offenberger for Honorary Membership in FECC. Professor Offenberger's short biography was provided (Attachment #5) Upon discussion and the expression of strong support, the motion was passed unanimously	
8.	**Membership Report** The report was presented and discussed. No motion was required.	Brian Kryska (Vice President)
9.	**By-Laws Proposal** (Attachment #6) The proposed changes to the By-Laws, which are of a house-keeping nature, where presented, discussed, moved. and seconded. They were approved unanimously.	Axel Meisen
10.	**New Business: None**	Axel Meisen
11.	**Next AGM - Sept 2022** (specific date to be set)	Abra Mueller
12.	**AGM Adjournment**	Axel Meisen

Presentation by Prof. Mike Campbell

The AGM was followed by a special presentation (with opportunities for questions) by Prof. Mike Campbell (University of Rochester and FECC Advisory Council Member) on the most recent advances in Inertial Confinement Fusion (ICF) at the Lawrence Livermore National Ignition Facility (NIF), CA USA

INTERIM PRESIDENT'S REPORT TO THE FECC BOARD

September 15, 2021

Observations on Global Fusion Energy Developments

Let me begin by stating that there has never been a better time for involvement in fusion science, technology, development, and applications than the past year. The future of fusion energy looks very promising.

At present, over 130 sites around the world are engaged in a wide variety of projects on fusion energy. These sites include not only governmental and academic institutions, but increasingly private companies with significant investor backing.

Most importantly, the past months have seen major advances to the goal of 'fusion with net energy production'. I can point to the recent reports from the National Ignition Facility at the Lawrence Livermore Laboratory site in California and the commissioning of new super magnets by Commonwealth Fusion Systems and the Massachusetts Institute of Technology. I can also point to advances at the Culham Center for Fusion Research in the United Kingdom and, of course, the steady progress at the ITER site in Southern France.

You will hear more about these extraordinary developments from Prof. Mike Campbell right after the AGM.

There is also important progress regarding fusion in Canada. General Fusion of Burnaby, BC has announced a major initiative in the United Kingdom and, earlier this year, the Government of Canada entered into a Nuclear Collaboration Agreement with ITER. This Agreement opens the door for the participation of Canadian enterprises and their members in ITER activities. However, the conditions under which such participation can occur and how the participation will be funded remain to be determined.

In my capacity as Interim FECC President I have had the opportunity to contribute to shaping potential specific activities under the Nuclear Collaboration Agreement with ITER. This is still a work in progress, but I am pleased to say that the collaboration with representatives of Canadian Nuclear Laboratories and the Organization of Canadian Nuclear Industries has been fruitful. In particular, I wish to recognize the work done with Ian Castillo and Ron Oberth of these two organizations.

I can now see the emergence of meaningful collaboration between Canada and ITER, thereby returning Canada officially to international partnerships in fusion. However, I wish to stress that we do not yet have concrete opportunities in place and my focus remains on transforming the opportunities into real activities.

FECC Work Since the Last AGM (Sep 16, 2020)

With this general background, let me turn to activities that the FECC and, in particular, the FECC Board have performed over the past 12 months.

Strategic Actions 2021-2023

A major focus has been the identification of activities that the FECC should undertake in the near term. This work has resulted in five Strategic Actions for the period of 2021 to 2023. The Strategic Actions are described in the document that the FECC Board approved in its August 11, 2021 meeting and which was sent to the FECC members earlier this week.

The five Strategic Actions are:

1. Developing a White Paper to guide fusion energy production and uses in Canada

2. Advancing the development and application of Canadian expertise in tritium production and use world-wide

3. Furthering the development of neutron-tolerant materials to meet conditions of fusion reactors and associated equipment

4. Creating the basis for a 'Fusion Canada Program', i.e., a broadly based program to support the development, production, and uses of fusion energy.

5. Strengthening the organization and effectiveness of the FECC.

Many of you have participated in the development of the Strategic Actions and I invite all FECC members to comment further and indicate their interest in contributing to the Strategic Actions. I thank all of you for your past efforts.

We are now in the process of forming five Strategic Action Groups to implement the Actions. Please let Abra, our Board Secretary, or me know of your interest in contributing to this important work and, if so, which Strategic Action Group you would like to join.

Webinars

Three webinars were held with the Organization of Canadian Nuclear Industries (OCNI) earlier this year:

- *Nuclear Fusion: Great Potential and Challenges* (April 20, 2021) with guest speakers and panelist Robert Fedosejevs and Allan Offenberger

- *Bringing Fusion to the U.S. Grid* (May 5, 2021) with speakers Richard Hawryluk, Kathryn McCarthy, and Dennis Whyte. This webinar highlighted the recent report of the US National Academies of Science, Engineering, and Medicine on building a fusion energy demonstration plant in the United States in the 2030s

- *Tritium: New Opportunities* (June 22, 2021) with guest speakers Ian Bonnet (ITER), Michel Laberge (General Fusion), George Carlin (OPG), Ian Castillo (CNL), and Vince Robinson (Tyne Engineering)

In addition, I gave a presentation in the Canadian Academy of Engineering Net-Zero Webinar (June 15, 2021) on Nuclear Fission and Fusion – Widening the Path to Net Zero. The title of my presentation was *Nuclear Fusion: Challenges and Opportunities*.

The webinars were well attended with approximately 100 participants in each case. Recordings of the webinars can be accessed via the FECC website.

FECC Administration

The FECC Board and Executive have met approximately once every other month since last September. They addressed strategic issues of the FECC and regulatory matters as prescribed in our By-Laws and governing legislation. All regulatory requirements have been met and the FECC budget, albeit small, is in a positive position. You will hear from the various Committee Chairs shortly.

Expressions of Appreciation

Since the start of this calendar year, I have served the FECC in the capacity of Interim President. This has given me the opportunity to work with all of its members, but particularly with the Members of the Board and the Advisory Council. On the basis of this experience, I want to express my appreciation to all of them for their collaboration and support.

I would like to give special recognition those FECC Board Members who have left or are about the leave the Board. In particular, I wish to thank

- Brad Anderson, who served as FECC President till late last calendar year and who started the FECC strategic planning process

- Chris Holly, for his contributions especially in the area of communications and for his wise counsel on matters related to Government

- Rick Phaneuf, for ensuring effective contacts with the Government of Alberta

- Mark Bronstrom, for his liaison work with the City of Edmonton

- Ying Tsui, for his input into research matters. Ying will leave the Board as a Member, but continue as a Board Member at Large.

Conclusions

Let me conclude in the way I started. This is a really good time to be engaged in fusion work. Scientific and technical progress is being made throughout the world. Fusion energy is becoming recognized as a resource that will ultimately become available everywhere and contribute to address two existential challenges: climate change and sustainability.

I cannot think of a worthier task than being associated with this effort and the Fusion Energy Council of Canada. I hope that you feel the same.

Axel Meisen

Attachment #2

Fusion Energy Council of Canada

FECC

Fiscal Year:

May 1, 2020 to April 30, 2021

Prepared by:
Carrie Ryning Bookkeeping
Tel: 780-922-4585
Cell: 780-271-4588
Email: ryning@telus.net

Fusion Energy Council of Canada
Profit & Loss
May 2020 through April 2021

	May '20 - Apr 21	May '19 - Apr 20	$ Change	% Change
Ordinary Income/Expense				
Income				
Donations Received	0.00	5,000.00	-5,000.00	-100.0%
Membership Revenue	2,500.00	202.50	2,297.50	1,134.6%
Total Income	2,500.00	5,202.50	-2,702.50	-52.0%
Expense				
Bank & Merchant Service Charges	138.79	21.86	116.93	534.9%
Business Licenses and Fees	0.00	82.88	-82.88	-100.0%
Web Site Expenses	205.43	3,000.88	-2,795.45	-93.2%
Total Expense	344.22	3,105.62	-2,761.40	-88.9%
Net Ordinary Income	2,155.78	2,096.88	58.90	2.8%
Net Income	**2,155.78**	**2,096.88**	**58.90**	**2.8%**

Fusion Energy Council of Canada
Balance Sheet
As of April 30, 2021

	Apr 30, 21	Apr 30, 20	$ Change	% Change
ASSETS				
Current Assets				
Chequing/Savings				
Bank Account ATB	10,054.12	9,232.10	822.02	8.9%
Bank Account BMO	-5.04	-5.04	0.00	0.0%
Petty Cash	105.58	105.58	0.00	0.0%
Total Chequing/Savings	10,154.66	9,332.64	822.02	8.8%
Total Current Assets	10,154.66	9,332.64	822.02	8.8%
TOTAL ASSETS	**10,154.66**	**9,332.64**	**822.02**	**8.8%**
LIABILITIES & EQUITY				
Liabilities				
Current Liabilities				
Accounts Payable				
Accounts Payable	0.00	1,333.76	-1,333.76	-100.0%
Total Accounts Payable	0.00	1,333.76	-1,333.76	-100.0%
Total Current Liabilities	0.00	1,333.76	-1,333.76	-100.0%
Total Liabilities	0.00	1,333.76	-1,333.76	-100.0%
Equity				
Retained Earnings	7,998.88	5,902.00	2,096.88	35.5%
Net Income	2,155.78	2,096.88	58.90	2.8%
Total Equity	10,154.66	7,998.88	2,155.78	27.0%
TOTAL LIABILITIES & EQUITY	**10,154.66**	**9,332.64**	**822.02**	**8.8%**

Attachment #3

Fusion Energy Council of Canada
Interim Budget
May 2021 through April 2022

	May '21 - Apr 22
Income	
Conference Registration	
Donations Received	300.00
Interest Income	
Membership Revenue	3,000.00
Other Revenue	
Sponshorships Received	2,000.00
Webinar Registrations	
Total Income	5,300.00
Expense	
Advertising and Promotion	
Bank & Merchant Service Charges	105.00
Business Licenses and Fees	
Conference/Web Meeting Expense	250.00
Interest Expense	
Meals & Entertainment	
Office Supplies & Expenses	
Payroll Expenses	
Professional Fees	300.00
Staff Development	
Telephone Expense	
Travel, Salons, Hosting Expense	1,000.00
Web Site Expenses	1,000.00
Total Expense	2,655.00
Net Income	**2,645.00**

DRAFT

Fusion Energy Council of Canada

Nominating Committee Report (Aug 9, 2021; Revised Sep 14, 2021)

Glenn Stowkowy (Past President), Axel Meisen (Interim President)

Nominations for 2021-2022

Executive Committee Members

Axel Meisen – President
Brian Kryska – Vice-President
Chijin Xiao - Treasurer
Glenn Stowkowy – Past President
Abra Mueller – Secretary

Board Members

Will Bridge
Brian Kryska
Kirk Michaelian
Andranik Sarkissian
Chandra Tomaras*
Blair Bromley
Axel Meisen
Abra Mueller
Glenn Stowkowy
Chijin Xiao

Board Members at Large

Robert Fedosejevs
Allan Offenberger
Ying Tsui
Perry Kinkaide
Klaas Rodenburg

Advisory Council Members

Michael Campbell
Fraser Forbes
Dennis Whyte
Robert Fedosejevs
Allan Offenberger

***** Chandra Tomaras currently is the Director of Environment and Climate Resilience for the City of Edmonton. She received her Bachelor of Applied Science in Environmental Systems Engineering from the University of Regina in 2004 and her Bachelor of Law from the University of Alberta in 2008.

Chandra has been working as an environmental and energy professional for over a decade in the private and public sector. Her work involves the intersection of strategic planning and environmental, energy and climate risk management. Chandra led the development of Edmonton's updated Energy Transition Strategy, which outlines the pathways for a low carbon and energy resilient city. The strategy aims to attract the next generation of energy innovators to the Edmonton region while transitioning to 100% decarbonized energy.

Prof. Allan A Offenberger

Short Biography

Allan Offenberger is Professor Emeritus of Electrical & Computer Engineering at the University of Alberta. He received his B.A.Sc. and M.A.Sc. degrees (1962, 1963) from the University of British Columbia (UBC, Engineering Physics) and Ph.D. degree (1968) from the Massachusetts Institute of Technology (MIT, Nuclear Sciences & Engineering).

His research program for more than 40 years was focused on the development of high power lasers and their application to plasma physics and inertial fusion energy research. His research group pioneered many areas in laser development (including CO_2 and KrF lasers), laser/plasma interaction physics and optical instrument innovations, especially related to Thomson scattering measurements. As a result of the KrF laser/plasma research leadership at the University of Alberta, he was seconded to serve as Director of the Laser Fusion Project to plan for a Canadian center for inertial fusion R&D. He has been an invited lecturer at laser symposia organized by Academies of Science in China, Bulgaria and Russia.

A highlight of his career was the U of A lab interactions with many graduate students, postdoctoral fellows, research associates, visiting scientists, technical staff who went on to distinguished careers in academia, major government labs & industry in Canada, France, Finland, India, Israel, Japan, UK & USA. He also enjoyed the many stimulating collaborative research opportunities with colleagues in international centres.

He has published extensively and given many invited talks at international conferences, universities, government and industrial laboratories as well as to service and other non-governmental organizations in Asia, Europe and North America. He was awarded a Canada Council Killam Research Fellowship and a UK Science and Engineering Research Council Fellowship at Oxford.

Allan has been a guest professor and consultant at, among others: UK Atomic Energy Agency-Culham Laboratory; University of California-Los Alamos National Laboratory; Oxford University-Rutherford Appleton Laboratory; University of California-Lawrence Livermore National Laboratory and; Osaka University-Institute of Laser Engineering (major labs for laser development and fusion energy R&D).

He is a Past President of the Canadian Association of Physicists and has served on many scientific advisory & research grant committees and boards, as a consultant to university, government & industrial institutions and, as a reviewer for research proposals, journal publications & university appointments.

Allan was the Founding President of the Fusion Energy Council of Canada and is a Past President of the Canadian Club of Edmonton. Among other activities, he served as a Founding Board Member of the Ontario Laser Lightwave & Research Centre and as a Board Member of Laser & Particle Beams (journal published by Cambridge University Press).

Attachment #6

FUSION ENERGY COUNCIL OF CANADA / CONSEIL DU CANADA

Minor Editorial Changes in FECC By-Laws

Proposed changes are highlighted in yellow

Version Approved in the AGM of Sep 16, 2020	Version Proposed for Approval in the AGM of Sep 15, 2021
Article One – Business Matters 1. 2. 2.01 Head Office - The head or principal office of the Fusion Energy Council of Canada shall be located in the Province of Alberta, at such place as the Directors of the Fusion Energy Council of Canada, may from time to time, by resolution determine.	Article One – Business Matters (Delete '1.') 2. 2.01 Head Office - The head or principal office of the Fusion Energy Council of Canada shall be located in the Province of Alberta, at such place as the Directors of the Fusion Energy Council of Canada, may from time to time, by resolution determine.
6.05 Duties of the Directors – The duties of the Directors shall be as follows: b) to provide direct liaison with the Chapters of the Fusion Energy Council of Canada and their members and to bring to the attention of the Board the concerns of such members;	6.05 Duties of the Directors – The duties of the Directors shall be as follows: b) to provide direct liaison with the Chapters of the Fusion Energy Council of Canada (once they have been established) and their members and to bring to the attention of the Board the concerns of such members;