

**From:** senate@queensu.ca  
**Sent:** Tuesday, January 11, 2011 2:48 PM  
**To:** provost@queensu.ca  
**Cc:** janiecd@queensu.ca; kathy.obrien@queensu.ca  
**Subject:** Senate referral: ePower

To: Bob Silverman Chair, Queen's University Planning Committee  
Subject: Proposal to establish the Centre for Energy and Power Electronics Research (ePower)

The attached proposal has been submitted to the Senate by the Faculty of Engineering and Applied Science and was referred on October 20, 2010 to the Senate Advisory Research Committee for review and subsequent recommendation to Senate.

The SARC report and recommendations are attached for QUPC's review and comment at its next meeting.

Thank you for your attention to this matter.

Georgina Moore  
Secretary of the Senate

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Queen's University Senate  
University Secretariat, Room 153 Richardson Hall  
Queen's University, Kingston, ON K7L 3N6  
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September 27, 2010

CHEMICAL ENGINEERING

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Dr. Kimberly A. Woodhouse  
Dean  
Faculty of Engineering and Applied Science  
Beamish-Munro Hall, Rm200  
Queen's University  
Kingston, ON K7L 3N6

Dear Dean Woodhouse:

**Re: Recommendation of the Dean's Advisory Committee on the formal centre status  
for the "Centre for Energy and Power Electronics Research" (ePOWER)**

The Advisory Committee for the Centre for Energy and Power Electronics Research (ePOWER) has completed its task of reviewing ePOWER's proposal for full centre status and unanimously endorses ePOWER's proposal for formal centre status. Members of the Advisory Committee were:

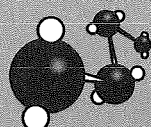
Geoffrey Chan, Department of Electrical and Computer Engineering  
Hossam Hassanein, School of Computing  
Jonathan Mash, Graduate Student, Department of Electrical and Computer Engineering  
Keith Pilkey, Department of Mechanical and Materials Engineering  
Juliana Ramsay, Department of Chemical Engineering (Chair)  
Brian Surgenor, Faculty of Engineering and Applied Science  
Margaret Burns, Faculty of Engineering and Applied Science (Secretary)

A notice regarding the establishment of the Committee was published in the May 25<sup>th</sup> 2010 issue of the Queen's Gazette and members of the University were invited to send comments to the Committee. None were received.

The Advisory Committee met on June 7, 2010 and again on August 17, 2010. The committee:

- 1) discussed its mandate and reviewed the Senate Procedures Governing the Establishment, Reporting and review of Research Centres, Institutes, and other entities at Queen's University (revised May 29, 2002),
- 2) reviewed ePOWER's application for formal centre status dated March 15, 2010,
- 3) reviewed ePOWER's application for provisional centre status dated January 14, 2009,
- 4) reviewed ePOWER's 2009 Annual Report.
- 5) considered the recommendations as outlined in the letter from VP Research dated March 23, 2009,
- 6) invited Dr. Warren Mabee, Associate Director, Queen's University Institute for Energy and

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- Environmental Policy (QIEEP) to respond in writing on how QIEEP can interact with ePOWER (see attached letter from Dr. Mabee),
- 7) met with Dr. Praveen Jain, Interim Director of the Centre and Mrs. Nancy Churchman, Manager, to obtain clarification on a few issues related to the proposal, and
  - 8) recommended revisions to the original proposal (revised proposal attached, August 24, 2010).

The Advisory Committee fully supports ePOWER's application for formal centre status as it has met the Queen's definition of a centre as stated in the Senate policy.  
(<http://www.queensu.ca/secretariat/senate/policies/ceninsen/index.html>).

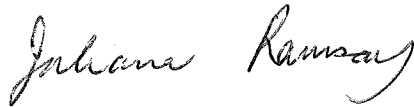
Some specific accomplishments are highlighted:

- 1) ePOWER has been operating since March 2009 under provisional centre status and has achieved a record of successful collaboration, among colleagues within Queen's in Electrical and Computer Engineering, Mechanical Engineering and Chemical Engineering as well as the School of Business. National and international academic collaborators are at University of Western Ontario, University of Waterloo, University of Ottawa, University of Toronto and McGill University. Outside Canada, they have collaborations at Cranfield University (UK), Motilal Nehru National Institute of Technology (India), University of Sydney (Australia), and University of New South Wales (Australia). Industrial collaborators include CHiL Semiconductor, Cistel Technology, EION Networks, Freescale Semiconductor, Honeywell ASCA, and SPARQ Systems.
- 2) ePOWER has generated external support to maintain a modest administrative structure. The position of ePOWER's manager is fully funded by ORF-RE to June 2013 and \$10,000 was awarded to ePOWER by VP Research to support a part-time administrative position from Sept 2010-March 2011.
- 3) ePOWER has generated external funding from Ontario Research Fund – Research Excellence, Ontario Centers of Excellence and NSERC Strategic Grant to support a long term program of research and scholarship. They have 40 + students as well as post-doctoral fellows, visiting researchers and engineers.
- 4) ePOWER has sponsored and shown leadership in supporting the Queen's Solar Design Team and Youth Outreach Program, as well as international conferences.
- 5) ePOWER has prepared a formal application and has addressed the recommendations of Kerry Rowe, VP Research, by i) including a statement on intellectual property consistent with Queen's University guidelines, ii) has external representation on their Advisory Board, iii) is considering wider recruitment of faculty participation at Queen's, i.e Dr. Joshua Pearce (MechEng) and iv) plans to explore interaction with Queen's Institute for Energy & Environmental Policy (QIEEP), as the committee received a positive response from Warren Mabee, Director, QIEEP, (see attached letter).
- 6) ePOWER's Interim Director, Praveen Jain, was the driving force behind the establishment of the Centre and has provided excellent leadership in his role as Interim Director. If the Centre is granted formal centre status, Dr. Jain has agreed to serve as Director of the Centre for a five year period.

ePOWER has chosen to focus on the strategic area of power electronics which has the potential to have a wide range of applications with strong potential for industrial funding. With the current accomplishments of ePOWER, it is fair to say that they are a world leader in fundamental and applied energy and power electronics research.

In conclusion, the Advisory Committee strongly supports the establishment of ePOWER and has no hesitation in recommending that the Centre's formal proposal be forwarded to the Engineering and Applied Science Faculty Board for review, comment and approval as outlined in the Senate Procedures Governing the Establishment, Reporting and Review of Research Centre, Institutes, and other entities at Queen's University.

Sincerely,

A handwritten signature in cursive script, reading "Juliana Ramsay".

Juliana Ramsay, Ph.D.  
Professor, Department of Chemical Engineering  
Chair, Dean's Advisory Committee

copy: Advisory Committee Members

Attachments