



# Request for Proposals (RFP) for Proof of Principle (POP) Grants Related to Energy and the Environment

## Grant Name: CSEE Proof of Principle Grants

**Grant Objective:** To move into application or commercialization the products of energy-environment research, whether the products are technologies to address the environmental challenges of energy production and use or insights to inform policy and investment decisions.

**Grant Size and Term:** Up to \$100K funding available for up to 18 months period beginning on April 1<sup>st</sup>, 2012.

**Application Deadline:** January 16<sup>th</sup>, 2012 at 16:00 pm (MST).

**Applicant Eligibility:** Only full-time, continuing faculty members from the University of Alberta, the University of Calgary, or the University of Lethbridge are eligible to apply and receive the funding.

**What to Submit:** A compiled PDF file that includes:

- ✓ Completed 'CSEE\_Grant\_POP\_Form.doc' file converted to PDF file format
- ✓ **Curriculum Vitae** for the Principal Investigator and each co-investigator, converted to PDF file format.

**How to Submit:** Specific guidelines for the electronic submission will be posted on the website at the beginning of January. Please allow sufficient time to collect the various approvals and signatures at your university before the deadline.

## What is a Proof of Principle (POP) Grant?

The goal of CSEE's Proof of Principle (POP) funding program is to move into application or commercialization the products of energy-environment research, whether the products are technologies to address environmental challenges of energy production and use or insights to inform policy and investment decisions.

POP funding is available for either assessing the feasibility of – or actually realizing – the transfer to application of existing technologies or insights focused on addressing the environmental challenges of energy production and use, including:

### **CSEE POP Funding will NOT support:**

- Basic science or engineering research to develop a technology;
- Work that addresses environmental challenges NOT associated with energy production transformation or use;
- Bridging or emergency funding in support of ongoing research;
- Work that has little or no chance of being transferred to application or commercialized in the foreseeable future;
- Work that has little prospect for making a 'significant' contribution to Canada's energy/environment.

- Reducing the environmental footprint of conventional and unconventional fossil energy exploration, extraction and processing (including greenhouse gases, water, land use, and toxins);
- Measurement, monitoring and verification technologies;
- Providing alternative and renewable energy technologies;
- Enhancing energy efficiency and conservation technologies;
- Improving the management of energy-related greenhouse gas emissions;
- Informing policies or practices designed to provide solutions for energy-environment challenges.

At the end of a CSEE POP project there is an expectation that the project will have either engaged external partners (government, industry, or non-governmental organizations (NGOs)) with research insights or technologies, or critically examined the feasibility or market potential of an energy / environment technology. In the latter case, the POP funding should lead to a “go” / “no-go” decision as to whether the research project justifies further, future investments of time, energy and resources.

The engagement from external partners (government, industry, or NGO's) is measured by their willingness to either use the research insights directly or to provide longer term in-kind or cash contributions to further research, development or deployment in the area.

### **Examples of Work Appropriate for POP Funding**

- Assessing the environmental costs and benefits of an energy / environment technology or policy;
- Develop a Business plan;
- Market assessment;
- Develop a marketing plan;
- Develop a ‘Technology Roadmap’;
- Doing a global technology scan, meta-analysis of data, etc
- Economic, legal, regulatory or policy assessment of an energy / environment technology or policy;
- Patenting or IP Protection costs;
- Risk Assessment of an energy / environmental technology or policy;
- Assessment of public perception / support for an energy / environment technology or policy;
- Critical tests or experiments (field trials, pilots, demonstrations etc) to show the viability of the novel tool, technology or policy;
- Preparation of reports, videos, websites etc to assist in the transfer of energy and environment insights or technologies.

### **Who can Apply?**

Only full-time, continuing faculty members from the University of Alberta, the University of Calgary, or the University of Lethbridge are eligible to apply and receive the funding.

### **POP Budget and Term:**

POP projects may be funded to a maximum of \$100,000, for a period of up to 18 months, beginning 1 April 2012. Due to the restricted nature of POP investments and the limited grant term, most funding requests are expected to be significantly less than \$100K. All CSEE funds must be spent by the end of the 18 month period. Budgets must be carefully documented and fully justified in the proposal. Applicants are encouraged to prioritize their funding requests to assist the Adjudicators in case they decide to approve partial funding.

Although there is no requirement for matching funds, proof-of-principle projects may be complemented with funds raised from other sources.

## **Funds Available:**

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CSEE has nominally allocated approximately \$1.6M for Proof of Principle and Proof of Concept funding. If the funds are not allocated in the January 16th 2012 competition, a subsequent competition may be announced later in 2012.

## **Possible Use of CSEE Funds:**

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Project expenses must be consistent with the Tri-Council guide on the use of research grant funding, available at: [http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/index\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/index_eng.asp)

Example expenses for a POP grant might include:

- Stipends for training graduate students or postdoctoral fellows;
- Salaries for summer undergraduate students, technical assistant(s) or research associate(s);
- Materials and supplies, software and small equipment;
- Consultant fees for pre-commercialization support services (e.g. intellectual property protection, market studies, business plan development, counselling and mentoring, technology evaluation);
- Costs for hosting conferences, workshops and meetings, e.g. with prospective industry or government stakeholders (including travel and accommodation);
- Costs related to publications and other promotional materials.

## **Intellectual Property**

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CSEE Proof of Principle Funding is provided to bring to application existing ideas or technologies, so – in most cases - the inventive process has already occurred. However, if new ideas or concepts arise from the work carried out with POP funding, the Intellectual property will reside with the researcher(s) or the university as per the policies within each university.

## **Reporting Requirements**

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Researchers receiving POP funding are expected to provide a detailed interim report on their progress in March 2013 and again at the end of the funding period. The reports will need to focus on how the funds were spent, what individuals were trained, and what results were obtained.

## **Adjudication Committee**

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An adjudication committee will consist of four individuals outside of the three CSEE partner universities, selected for their experience in research, commercialization and policy initiatives related to energy and the environment.

The Director of the University of Alberta's School of Energy and Environment (SEE), and the Executive Director of the University of Calgary's Institute for Sustainable Energy, Environment and Economy (ISEEE), and a representative from the Water Institute for Sustainable Environments (WISE) will have the opportunity to be non-voting observers on the Adjudication Committee.

## Evaluation Criteria

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The Adjudication Committee will be asked to evaluate and rank each proposal using the following criteria and relative percentage weighting as depicted in parenthesis [100%].

1. **Novelty** of the research insight or technology being proposed for transfer or commercialization [20%];
2. **Strategy.** The importance of the proposed POP work plan in assessing the feasibility of a technology or policy insight, or in transferring a technology or policy insight to a potential user. Are the milestones appropriate? [20%]
3. **Potential** of the proposed technology or policy insight to lead to a significant improvement in the environment and/or economics related to energy production and use in Canada [20%]
4. **Budget.** Would the proposed budget be a good use of CSEE Funds? Can the work be done in the time and with the budget proposed? [20%]
5. **Researchers.** What is the quality of the research team? Do they have the necessary expertise? Do they have a track record of high quality work? Will students be trained? [20%]

## Application Process

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1. Download from the CSEE Website the following file:
  - ‘CSEE\_Grant\_POP\_Form.doc’
2. Complete the application form and pull together CVs for the Principal Investigator and any collaborators.
3. Convert the Word files to one PDF package using Adobe Acrobat.
4. Save the file with a name that has the following format:  
PoP\_FSU.pdf – where ‘F’, ‘S’ and ‘U’ refer respectively to the initial of the first name, the surname and University of the principal investigator; e.g., Pop\_JDoeUoA.pdf
5. Submit electronically the complete PDF file as indicated on the CSEE website (guidelines to be posted at the beginning of January).
6. Get the necessary signatures on page 1 of the POP form and send, as appropriate, one original copy of the complete application to:
  - Stefan Scherer, Director, University of Alberta's School of Energy and Environment (SEE)
  - David Layzell, Executive Director, University of Calgary's Institute for Sustainable Energy, Environment and Economy (ISEEE)
  - Office of Vice-President Research, Water Institute for Sustainable Environments (WISE)
7. Notification of Decision: In March 2012, all principal investigators will receive a Notice of Decision indicating whether or not their proposal was approved, and if approved, with what budget.