

May 2017

Alberta Upstream Petroleum Research Fund (AUPRF) Terms of Reference

Introduction

The Alberta Upstream Petroleum Research Fund (AUPRF) is an industry-sponsored fund supported by the Canadian Association of Petroleum Producers (CAPP) and the Small Explorers and Producers Association of Canada (SEPAC). The AUPRF Fund is managed and administered through PTAC Petroleum Technology Alliance Canada. PTAC is a neutral facilitator of multi-stakeholder industry research and technology development projects.

CAPP and PTAC entered into an MOU to more closely coordinate and collaborate on the formulation and delivery of strategic research and innovation. PTAC was identified in the MOU process as the delivery agent of choice for research for the upstream petroleum industry.

The AUPRF fund supports CAPP's stewardship initiative demonstrating industry's commitment to responsible and balanced resource development and continuous improvement. This fund supports applied, peer-reviewed research that increases knowledge, assists in decision-making, and develops solutions to industry environment, health and safety/social issues. The science supporting AUPRF projects is based on independent, peer-reviewed research performed by consultants and university and government scientists. The reports arising from this research are thorough and objective. They identify required improvements as well as practical cost-effective solutions.

The long-term success of the industry in Canada depends on the collective advancement of this agenda between all stakeholders. AUPRF research is not undertaken in isolation. Industry funds are leveraged by government, institutional and other stakeholder support, often at the rate of four to five dollars for every industry dollar. Through PTAC, industry works closely with all stakeholders to ensure projects focus on high-priority issues and coordinates research efforts with other organizations.

Research priorities are defined from policy issues identified by industry through CAPP's policy groups and knowledge gaps/research questions framed by PTAC technical multi-stakeholder groups including the oil and gas industry, regulators and government agencies. Research priorities are addressed through AUPRF funded projects. Extension of research findings are a key component of each project. A history of the AUPRF Fund is contained in Appendix 1.

Objective

To provide an efficient and effective mechanism to coordinate, initiate, fund, complete and communicate on Environmental research needed by the industry and government regulators enabling a prosperous upstream oil and gas industry achieving socially and environmentally responsible recovery of Canada's petroleum resources through effective, market-driven collaboration.

Purpose

The AUPRF Fund supports practical science-based studies that develop credible and relevant information to address knowledge gaps in the understanding and management of high priority environmental and social matters related to oil and gas exploration and development in Alberta. Research reports are shared with the oil and gas industry funders as well as regulators and government agencies that serve on the technical committees.

Key Values

The facilitation and administration of the AUPRF Fund will reflect the following values:

- Transparent—open access to opportunities, fund priorities and processes, results of submissions and results of projects.
- Collaborative—involving multiple stakeholders.
- Strategic—focused on funding projects that address policy issues/knowledge gaps in high priority areas.
- Local community focused – research must be applicable to conventional Alberta oil and gas activities.
- Broad Industry Interest – research must be applicable broadly to industry

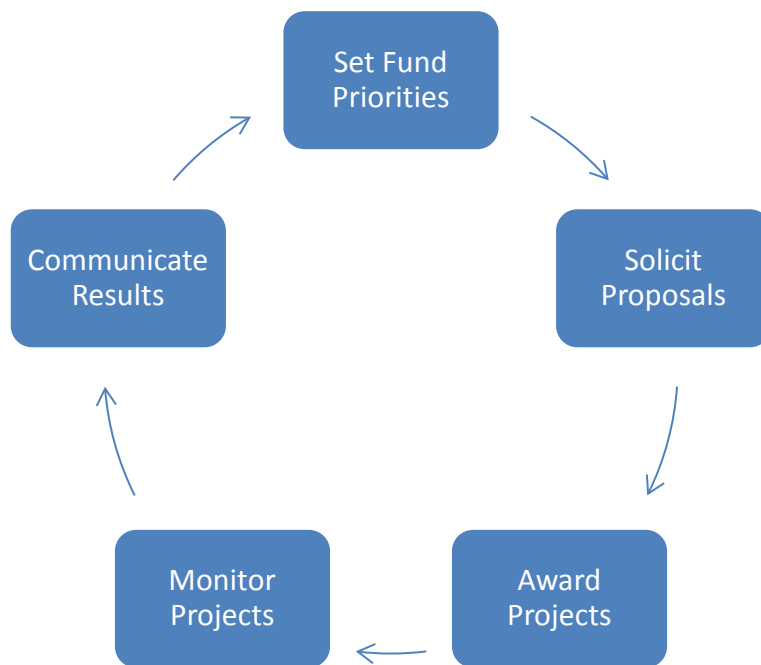
Key Principles

1. Joint technical steering committee approach between organizations including sharing of information and open technical discussions.
2. Organizations have flexibility to retain internal priorities and strategy.
3. Technical direction provided by industry champion for each project and overseen by the Research Technical Steering Committee (TSC) or Working Group (WG).
4. Consensus decision making: those who pay have the final say on project scope and technical direction. PTAC is a neutral facilitator and PTAC staff will not screen, evaluate or make decisions on projects.
5. Collaboration and partnering will be the norm.
6. Results shared with the funders, government and regulator.
7. R&D scientifically reviewed by independent recognized experts.
8. Development of Best Practices for practical application/update by field personnel.

Process

The AUPRF Fund process:

1. **Identify high priority policy issues/knowledge gaps**—CAPP members identify policy issues facing industry. PTAC and CAPP committee members work together to identify knowledge gaps/research priorities to address the issues.
 2. **Solicit proposals to address knowledge gaps**—through Call for Funding Applications and Request for Proposals, proposals are collected and a thorough review and selection process is undertaken.
 3. **Launch of focused technical projects** - Projects are awarded once final review by AUPRF Management Committee and approval by CAPP resulting in targeted scientific and knowledge based research projects.
 4. **Monitor projects** – projects are managed by PTAC with support of an industry technical champion and overseen by multi-stakeholder technical steering committee.
3. **Communicate results**—disseminate relevant findings to industry, regulators and government agencies, and other stakeholders.



See Appendix 2 for more specific detail on process.

Management Strategy

PTAC works closely with CAPP to align AUPRF priorities and criteria to CAPP policy objectives. Projects are solicited by a Call for Funding Applications/Request for Proposal process and then evaluated and selected by industry. There are multi-stakeholder committees who provide input on this process and projects including representation from the ERCB, Alberta Environment and Environment Canada. This transparent approach results in immediate results that address needs which are specified, identified, supported, and of benefit to the broad industry. The resulting research has and continues to be used by governments and regulators to set or revise environmental guidelines based on solid scientific evidence and by industry to establish best practices.

PTAC leverages significant technical expertise by engaging, coordinating and aligning with technical experts who provide input on technical project direction and assist with identification of issues.

PTAC manages the process of facilitating projects and administering the funding program. PTAC is also responsible for managing the projects that are awarded and works with industry technical champions and project performers to ensure projects are on task, schedule and budget.

AUPRF Management Committee

The AUPRF Management Committee is comprised of the industry representatives of each of the AUPRF technical committees and CAPP with facilitation from PTAC management/staff.

The AUPRF Management Committee participates in a review process resulting in consensus of projects recommended for funding to CAPP. Project selection considerations include: sense of urgency of issue, relevance to industry/applicability to broad industry, project scope goal clearly defined and adequately address CAPP's policy issues/knowledge gaps, project cost appropriate for deliverables/work scope, experience with researcher/project performer.

Technical Steering Committees

Technical Steering Committee members are CAPP and PTAC members that include professionals, specialists and technical experts from industry, regulatory and government agencies as well as other potential stakeholders. Technical Steering Committee experts may support the AUPRF program in the following ways.

- Participate in the identification of priority setting including specific policy issues/knowledge gaps relating to managing environmental impact of conventional oil and gas industry.
- Aid in the scientific and technical screening of proposals;
- Make recommendations to the AUPRF Management Committee and AUPRF Program Manager regarding the technical design of research projects and the capability of proponents to deliver the project; and
- Act as technical expert for the review of project deliverables and report to the AUPRF Program Manager and the appropriate technical committee on the adequacy/utility of the research.

PTAC facilitates industry led technical stakeholder groups and project specific committees formed to address on-going project results, to fund opportunities/needs, to discuss upcoming regulatory/issues, and to plan forums and events to disseminate project results. PTAC environmental R&D committees are comprised of over 60 technical experts in the areas of soils, ecological/resource access, air issues, and water issues. There is currently discussion regarding adding an Abandonment Committee to the AUPRF Program.

Project Technical Champion

Each project is aligned with a Project Technical Champion. The Technical Champion is responsible for the following:

- Provide technical direction throughout the project, based on individual expertise and input from committee members;
- Assist with securing suitable sites for test work;
- Present final project findings to CAPP members/committees;
- Ensure that final report is reviewed by CAPP members and feedback is provided to the research provider in a timely manner; and
- Sign off on invoices

AUPRF Program Manager

PTAC is accountable to CAPP. PTAC supports the AUPRF Program in program planning and development; is responsible for the day-to-day operation of the Fund; and liaises with subject matter experts where needed for the input and review of proposals and project deliverables.

This program is supported by the PTAC President, a Director, an Environmental R&D Coordinator, accounting support and other staff support as required.

PTAC is responsible for the following:

- PTAC to act as a neutral facilitator to establish and maintain sound and consistent business processes, principles and tools for project delivery and fund administration;
- Facilitate Steering Committee meetings;
- Lead and manage the project delivery processes—including facilitating the setting of funding priorities, soliciting proposals and issuing recipient agreements;
- Provide support to technical champions on monitoring the delivery of projects against commitments; and
- Lead and conduct fund administration processes—including developing and maintaining processes and activities regarding the AUPRF Fund

AUPRF Financial Management

PTAC financially administers the fund following PTAC's accounting policies, including:

- Contract administration including issuing recipient agreements and amendments to those agreements;
- Facilitating invoice approval and processing (e.g., accounts payable/receivable);
- Financial management and reporting including tracking commitments and expenditures on each project; and
- Annual financial reports to CAPP Controller.

Communication Strategy

PTAC uses the following mechanisms to ensure project R&D results are widely publicized: hosting all project updates and final reports on PTAC's website (some information may have restricted access) sending out a monthly newsletters featuring project updates and event notices.; coordinating the review of draft reports and issuing final reports; hosting four technical forums each year with presentations from researchers on project results (over 400 participants at these events).

PTAC also works with other associations, industry groups and media to further disseminate AUPRF project results and outcomes.

Appendix 1—History of the AUPRF Fund

The Canadian Association of Petroleum Producers (CAPP) and Petroleum Technology Alliance Canada (PTAC) pooled resources in 1998 to increase the amount of environmental R&D projects for the Canadian oil and gas industry. Discussions resulted in a Framework and Process Model for Collaborative R&D for the Upstream Oil and Gas Industry which has provided an efficient and effective mechanism to coordinate, initiate, fund, complete and communicate environmental related R&D needed by industry and government regulators. In October of 1996 CAPP and PTAC entered into a Memorandum of Understanding (MOU) on Enhancing the Pace of Innovation, Research and Technology Development, Demonstration and Deployment (IRD3) in the Upstream Petroleum Sector. This resulted in the creation of the Environmental Research Advisory Council (ERAC) fund. This fund was renamed in 2010 to the Alberta Upstream Petroleum Research Fund (AUPRF) to be more representative of the objective of the fund.

The AUPRF Program is managed through PTAC as an organization that facilitates research and technology development, and provides fundamental benefits to the hydrocarbon energy industry. PTAC has facilitated the AUPRF Program since 1998 and to date has launched 273 environmental applied research projects, which have not only reduced the oil and gas industry's environmental footprint, but have improved regulations, assisted in the ease of operations, and helped the industry maintain its social license to operate.

Appendix 2 – Project Delivery Process

Set Fund Priorities

PTAC facilitates technical discussions to identify and upgrade research priorities annually. CAPP Technical Steering Committee members are responsible for identification of key current policy issues facing industry. PTAC Technical Steering Committee members work along side CAPP technical steering committee to identify knowledge gaps/research question to adequately address the policy issues. There are four main technical areas including air, water, land/ecological and soil/groundwater. These priorities are finalized and contribute to the Call for Funding Applications.

Solicit Proposals

Call for Proposals/Funding Applications

PTAC will issue a Call for Funding Applications which includes specific priorities and knowledge gaps. The approach for soliciting proposals to address funding priorities and knowledge gaps will follow a two step process.

Interested project proponents/researchers are invited to submit a Step 1 Letter of Intent (LOI) in response to the call. The LOI application is a short summary of the opportunity, how it will be addressed, the impact to industry and the approximate costs and timeframes. The appropriate technical steering committee will review LOIs based on a consideration of potential funding available and the consistency of the LOI against AUPRF identified policy issues/knowledge gaps. If appropriate, a full proposal Step 2 will be requested and this proposal will be go through a rigorous review process.

This approach will involve a review from both the PTAC research technical group and the CAPP policy committee. This process may include asking the researchers to tweak their proposal to better meet the needs of industry perspective. The AUPRF Coordinating committee will finalize which projects should proceed based on the current industry climate of issues and priorities and what is appropriate for the anticipated budget.

PTAC has an on-line review and voting system for the ease of review by technical steering committees. This web platform also serves for access to information on project applications for historical purposes, ie. access to technical comments on why project was not selected for further review, etc. (See Appendix 3 for more information on review and voting system).

Award Projects

The AUPRF Coordinating Committee will be responsible for final decision on projects recommended for funding based on the generic and proposal specific evaluation criteria and parameters. These recommendations go to CAPP for final approval. PTAC is responsible for completing the process including notifying proponents for accepted proposals and debriefing unsuccessful proponents. PTAC will also conduct any negotiations with the proponent for changes to proposals requested by the AUPRF Coordinating Committee or specific technical committee.

PTAC will prepare and issue a project award letter and enter into agreements when necessary.

Tools

- Request for Funding Applications including current year Policy Issues/Knowledge Gaps
- Full Proposal Guidelines
- On-Line Ranking/Voting System
- Decision letter templates (e.g., notice of award, regret letter)
- Recipient agreement template
- Recipient Terms and Conditions

Monitor projects

This process involves the two activities listed below:

- Project tracking; and
- Financial Management

Project Tracking

A project award letter will initiate the project monitoring process. The project will be managed through PTAC with the support of a volunteer project technical champion who will provide technical direction and oversight to the project. The project status will be reported at quarterly technical meetings.

PTAC will monitor and track approved projects including monitoring milestones, deliverables and financial activities to ensure commitments are met on schedule and budget in an efficient, effective and accountable manner. Issues and progress updates will be discussed at PTAC quarterly technical steering committee meetings. Urgent issues that need to be addressed before the next committee meetings will be addressed through conference calls and emails.

Project deliverables must be developed and submitted according to the terms of the Recipient Terms and Conditions document. Project extension activities will also be monitored by PTAC to ensure project results are disseminated to members and other applicable stakeholders.

Financial Management

PTAC will provide an invoice template for project performers to use in preparation of their invoices. PTAC will receive invoices and submit to technical project champion for their approval and will process invoice accordingly. PTAC will track all project financial accounting and provide reports to CAPP. Each report will include amount approved per project, invoices received and processed to date and amount remaining to be spent by the end of the year. Please note overhead costs are limited to a maximum of 10%.

Manage Finances

Managing finances follows PTAC's accounting policies and includes the following:

- Track commitments and expenditures by project;
- Maintain financial records for the AUPRF projects;
- Accounts payable;
- Contract administration—prepare recipient agreements and amendments; and
- Produce financial reports on the Fund's financial status and activities to CAPP.