

IDENTIFICATION

Department	Position Title	
Aurora College	Manager, Applied Energy Research Programs	
Position Number	Community	Division/Region
91-16631	Inuvik	Research Division

PURPOSE OF THE POSITION

The Manager, Applied Energy Research Programs is responsible for management and oversight of research programs and outreach initiatives relating to applied energy research, monitoring and innovation. This position organizes and manages energy research and monitoring initiatives within in all regions of the Northwest Territories.

The Manager promotes scientific and technological innovations, and establishes and maintains partnerships and programs to maximize applied energy research programs, monitoring and innovations for the benefit of northern industry and citizens.

SCOPE

The Manager, Applied Energy Research Programs is located in Inuvik and reports to the Vice President Research. The Manager, Applied Energy Research Programs oversees the energy research, monitoring, and innovation programs within the Aurora Research Institute and provides support to Aurora College educational programs. The Manager, Applied Energy Research Programs is responsible for a base annual budget of \$150,000 and funds from third party projects and revenues (estimated between \$1,000,000 and \$2,000,000 annually) with signing authority up to \$25,000.

The Manager, Applied Energy Research Programs provides support for scientists working in the region as well as overseeing the development and implementation of special projects and training opportunities. The incumbent is responsible for providing research and monitoring innovation, support, and technical advice to researchers and the Aurora College community (students, instructors, and staff). The Manager is responsible for administration and supervision of 2-3 staff, performing budgetary functions, as well as producing a variety of written reports and proposals.

As Manager, Applied Energy Research Programs the incumbent is responsible for making a significant contribution to the effective operation of the Aurora College by providing a full

range of technological services through the oversight, analysis, evaluation, and development of current and novel energy research and monitoring programs. The Manager guides the development of new programs in alignment with the Aurora College and Aurora Research Institute strategic plans.

RESPONSIBILITIES

- 1. Manages and provides leadership in energy research initiatives within in all regions of the Northwest Territories.**
 - Analyze and evaluates current and projected needs for energy research, innovation, and technological adaptation to meet northern needs and interests;
 - Meet and contact government and industry to determine territorial needs and priorities;
 - Research and promote technologies;
 - Review relevant literature;
 - Establish contacts with universities, research organizations and national and international technology based firms;
 - Solicits funding to create projects and provide jobs related to technological research projects and activities; and
 - Plan, develop, and deploy information technology infrastructure, platforms, and initiatives to meet organizational and community needs.
- 2. Leads in the development of plans, programs, and policy which support use of innovative energy technology in the north.**
 - Prepare, based on needs assessment, plans for technology development and / or adaptation in consideration of Aurora College and Aurora Research Institute strategic plans;
 - Create and lead strategic initiatives and programs for technology development for communities including “cottage industry” development, small-medium business development, and alternative energy;
 - Create and lead initiatives to advance energy and digital literacy, the use of new multimedia technologies, and online services for the benefit of northern residents and business;
 - Write proposals to address technological needs for northern communities and businesses;
 - Operate in an entrepreneurial manner by seeking funding to support projects and programs;
 - Develop partnerships and agreements with industry, community agencies and other organizations to address energy technology and economic development; and
 - Assist in the design of College programs using current technologies.
- 3. Supervises staff and oversees initiatives related to energy, digital literacy, and innovation.**
 - Manages contracts, projects, and other initiatives focused on technology adaptation and adoption in the north;
 - Oversees the ongoing delivery of developed initiatives;
 - Supervises 2-3 staff including direct and indirect reports;

- Prepares, manages, and reports on budgets for ongoing and special initiative projects;
- Develop terms of reference for projects;
- Issue, review, and award contracts;
- Direct contractors in their work;
- Review and approve work;
- Undertake direct work on projects; and
- Prepare documents, budgets, and reports on projects and results.

4. Promotes and represents the Aurora Research Institute and Aurora College.

- Participate in and/or chair various territorial and national committees in order to provide technology advice and to build information networks;
- Organize ad-hoc groups to provide advice on specialized matters;
- Attend meetings and conferences and provide technical advice to committees, organizations, and community groups;
- Organize symposia and workshops;
- Represent Aurora College on topics of innovation, technology, energy, and digital literacy; and
- Provide technical advice and instructional services to Aurora College programs.

5. Communicate information on energy technology advances to enhance understanding of its value and use in the north.

- Develop and present materials to students, special interest groups, and the public;
- Prepare and distribute information and resource lists;
- Develops digital and technical literacy initiatives focused on growing northern capacity and community economic development;
- Develops demonstration projects to raise community awareness about new technologies and their application in a northern context;
- Develops and supports initiatives to generate public engagement on careers and training opportunities in STEM (Science, Technology, Engineering, Math) fields;
- Advertise technology-based initiatives and projects; and
- Organize forums for discussion of technology matters.

WORKING CONDITIONS

Physical Demands

There are limited physical demands associated with this position.

Environmental Conditions

The incumbent is also faced with constant interruptions and must meet on a regular basis with others.

Sensory Demands

The incumbent must spend long hours in intense concentration of both a technical and an interpersonal nature. The incumbent must be especially adept to listening to, and understanding, others from a variety of cultural backgrounds.

Mental Demands

The incumbent is faced with mental demands stemming from the need to communicate with others constantly, the intensity of meetings, the need for attention to detail, and to provide instruction in a cross-cultural environment. Stress is also caused by the variety of program areas and the need to help others succeed in spite of significant barriers. The incumbent may need to travel between various College locations occasionally. Therefore travel by winter road and/or small aircraft is sometimes required.

KNOWLEDGE, SKILLS AND ABILITIES

- Experience in research and development in both an institutional and community based setting. Should have first-hand experience in developing and implementing programs/projects.
- Experience in the development of new programs and oversight of existing program areas.
- Experience supervising multiple staff across multiple initiatives.
- The incumbent of this position requires a strong knowledge and academic background in engineering and technology innovation.
- The incumbent will be required to design and implement independent projects, therefore requires project development, implementation, and analysis/evaluation skills.
- Demonstrated knowledge in designing, implementing and managing technology programs/projects.
- Experience in managing multiple budgets, including an understanding of accounting and financial management.
- Experience with instruction.
- Strong research and analytical skills in order to design and implement independent projects for technology development in the north.
- Knowledge and comprehension of technological and industrial developments.
- Knowledge of northern economics, industry, and technical infrastructure.
- Knowledge of federal, provincial/territorial, and regional research and development initiatives.
- Advanced computer and computer system skills with experience using a variety of programs including databases, spreadsheets, word processors, statistical packages, and desktop publishing.
- Excellent verbal and written communication skills required in order to arrange and facilitate meetings and workshops, establish strategic partnerships, negotiate contracts, prepare proposals, prepare budgets, and write technical, academic, and plain language reports.
- Planning and problem solving skill in order to conduct a number of operational requirements.
- Knowledge, experience and an understanding of working in a cross-cultural environment.
- Effective organizational and management skills.
- Strong interpersonal skills are required as the incumbent will be working closely with community and territorial organizations in conceiving and managing projects.
- Self-motivated, independent and innovative with the ability to take on new challenges.

- Ability to work independently and in a team environment.
- Ability to adapt to new situations and circumstances.
- Ability to work within restrictive time constraints and short time lines to develop and complete projects.
- The incumbent should be an innovative leader with a good understanding of industrial practices and technologies.
- Sound knowledge of Northern Canada.

Typically, the above qualifications would be attained by:

- Completion of a Masters or PhD in engineering related field of scientific study with six to eight years related experience working in an area of technology development including three years of experience in research project management and three years successful experience in fundraising for research projects.

ADDITIONAL REQUIREMENTS

Position Security (check one)

No criminal records check required
 Position of Trust – criminal records check required
 Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applicable)

French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION
 Basic (B) Intermediate (I) Advanced (A)
 READING COMPREHENSION:
 Basic (B) Intermediate (I) Advanced (A)
 WRITING SKILLS:
 Basic (B) Intermediate (I) Advanced (A)

French preferred

Indigenous language: Select language

Required
 Preferred