



## IDENTIFICATION

| Department                     | Position Title                        |                     |
|--------------------------------|---------------------------------------|---------------------|
| Housing, Northwest Territories | Manager, Energy Planning and Projects |                     |
| Position Number                | Community                             | Division/Region     |
| 93-17055                       | Yellowknife                           | Infrastructure / HQ |

## PURPOSE OF THE POSITION

The Manager, Energy Planning and Projects, provides technical advice to a multi-disciplinary team of headquarter (HQ) and district technical staff on the operation, maintenance, and improvement of energy systems, and leads the implementation, review and evaluation of Housing NWT's Energy Management Strategy. This position will also monitor, track and report on the energy performance of the housing portfolio to ensure Housing NWT's energy targets are met and to identify future energy project opportunities.

## SCOPE

Housing NWT incorporates environmental and fiscal sustainability in all aspects of its work and envisions a sustainable housing portfolio with reduced dependency on fossil fuels which contributes to the economic, social, and environmental wellbeing of the Northwest Territories (NWT) and its residents.

Housing NWT operates an asset portfolio comprising 2900 residential units in 33 communities across the NWT. The portfolio ranges from single-detached residential houses to complex multi-unit residential buildings including a number of solar and biomass systems. In addition, Housing NWT operates a fleet of vehicles and commercial assets, including office buildings and workshops, in 24 communities to support the operations of Housing NWT's five (5) District Offices and 24 Local Housing Organizations (LHO).

Located in the Finance and Infrastructure Planning branch at HQ in Yellowknife and reporting directly to the Director of Infrastructure Services, the Manager, Energy Planning and Projects (Manager) is directly responsible for Housing NWT's energy planning and project management including: identifying and applying for funding, managing energy retrofits and installation of new energy systems, and implementing energy guidelines for new construction.

This position will form part of Infrastructure Services' Senior Management team which includes the Manager, Housing Projects, and the Manager, Capital Planning, Design Innovation and Quality Assurance. The team collaborates to plan, implement, design, procure, construct, and commission Housing NWT's infrastructure projects which range from energy retrofits and modernization and improvement projects to large-scale new construction projects, including housing projects which incorporate renewable and low-carbon energy systems. Housing NWT's capital plan ranges from \$10M to \$50M annually with up to \$7M allocated for energy retrofits, renewable and low-carbon energy specific projects. The Manager exercises contract initiation authority of \$100,000 and performance authority of \$100,000.

The Manager works closely with five (5) District Technical Managers, and the HQ Manager, Maintenance Services to assess the impact of renewable and low-carbon energy projects and energy systems on operations and to provide direction in the operation and maintenance requirements of energy systems. The Manager will develop strategies and training programs to support skill development and build capacity to operate energy systems for Housing NWT and LHO technical staff and maintainers, contractors, community-based operators, and other stakeholders including Community Governments, Indigenous Organizations, and Non-Government Organizations.

The Manager is responsible for all activities required to develop and implement renewable and low-carbon energy systems including concept planning, feasibility studies, project initiation, design and engineering, monitoring, commissioning, and operation, as well as financial modeling and business case analysis. The position will monitor, track, and analyze the energy performance of Housing NWT assets to identify projects which would result in the increased use of renewable and low-carbon energy for space heating, lower energy use intensity, and maximize results in terms of GHG-emissions reductions, stabilization of operating costs, and present other socioeconomic benefits such as skill development and growth in the renewable and low-carbon sector. The ongoing analysis of energy performance based on utility consumption data across Housing NWT's asset base will be used for the purposes of reporting to Senior Management, supporting decision-making activities, capital planning processes, and to support funding and research activities.

The Manager has expertise relating to the challenges, opportunities and success factors associated with various sources of energy and the diverse regional contexts across the NWT, to inform the short, medium, and long-term planning and implementation of projects which advance the strategic objectives of Housing NWT. Projects may include building retrofits, new energy systems including energy storage, smart-grid implementation, alternative fuels, district heating systems (small and large scale), energy-efficient new construction and other renewable and low-carbon technologies. The scale of these projects will vary from single-detached dwellings to multi-unit residential buildings.

Adherence to safety practices as mandated by GNWT legislation and NWTHC safety guidance for self, staff under direct supervision and consultants/contractors under contract to the incumbent, is required.

The Manager is responsible for the development, implementation, and review of Housing NWTs Energy Management Strategy. Key objectives of the Strategy include reducing the energy use intensity of the asset portfolio, increasing the use of renewable energy for space heating, increasing the capacity to manage and maintain energy solutions, and increasing partnership opportunities in energy projects. The Manager will provide Housing NWT Senior Management expert advice and recommend actions which align with the Strategy. The Manager will develop the framework for a sequence of Housing NWT Energy Management Strategies, and develop and report on the Energy Blueprint, an implementation document outlining Housing NWT's annual energy investment and action plan.

This position works with partners including other Government of the Northwest Territories (GNWT) departments and agencies, community governments, Indigenous Governments and organizations, Government of Canada and other stakeholders to advance Housing NWT's energy management and planning objectives including identifying and participating in research and funding opportunities.

## **RESPONSIBILITIES**

### **1. Energy planning and design:**

- Develop high-level, and specific, project plans for infrastructure retrofits, additions, and new construction to achieve strategic goals of the Energy Management Strategy.
- Assess feasibility of potential projects through the development of energy models and business case documents.
- Develop project charters and scopes of work for energy infrastructure projects.
- Manage the concept and design phase of energy projects.
- Lead and manage the contracting of external consultants to meet projects goals and regulatory requirements when required.
- Develop criteria and guidelines to incorporate energy-efficiency standards and renewable and low-carbon energy systems into design of new construction.
- Complete technical review of consultant design submissions to assess energy modeling, envelope design, and electrical and mechanical systems against the stated energy efficiency criteria and project energy objectives.
- Develop quality assurance and quality control protocol to test construction projects to verify the energy objectives established at the start of the project have been met.

### **2. Guide Housing NWT's Energy Management Strategy and broad energy directives:**

- Manage and lead the review, evaluation, and updating of Housing NWT's Energy Management Strategy and Energy Management Blueprints
- Track federal energy infrastructure funding opportunities and work with partners to identify and define new projects to support the Energy Management Strategy.
- Remain current on renewable and low-carbon technology development and best practice for calculating GHG emissions
- Develop funding proposals for new funding opportunities for senior management.
- Develop, administer, track, and report on progress for energy capital funding contribution agreements with partners.

- Participate in research which advances the objectives of the Housing NWT Energy Management Strategy.
- Monitor, track, and report on the energy performance of NWT Housing's assets as outlined in the Energy Management Strategy.
- Model pathways to increase efficiency, and the use of renewable and low-carbon energy across Housing NWT's asset portfolio.

**3. Provide support and expert technical advice for the operation, maintenance, and improvement of energy systems.**

- Monitor and report on the success of energy projects and develop recommendations for system improvements.
- Provide support to five (5) District Offices to develop and monitor operation and maintenance plans for energy systems.
- Develop training and skill development programs related to the operation and maintenance of energy systems.
- Develop strategies to support industry, communities and other stakeholders to increase capacity in the low-carbon sector.

**4. Lead engagement activities and develop guidelines related to energy projects and systems.**

- Represent Housing NWT on intergovernmental energy related working groups and committees, including federal-provincial-territorial groups and with indigenous governments.
- Lead Housing NWT energy related consultation and engagement activities with Indigenous Government Organizations, communities, industry, and other project stakeholders to build and engagement with potentially affected Indigenous Government Organizations and engagements with stakeholders to build support for specific projects.
- Support community leadership and energy stakeholders to understand proven and emerging energy options that are applicable in their local region of the NWT.

## **WORKING CONDITIONS**

### **Physical Demands**

Quality assurance obligations require the incumbent to attend construction sites (technical compliance) and facility sites (troubleshooting), and experience lifting, stretching, climbing, walking, standing and working in awkward positions approximately 10-20% of the time.

### **Environmental Conditions**

No unusual conditions.

### **Sensory Demands**

No unusual demands.

## **Mental Demands**

The incumbent is away from home up to 10-20% of the time due to travel required to provide staff/community training and construction monitoring and inspections.

## **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge and understanding of conventional, renewable, and low-carbon energy systems as well as the challenges of integrating energy solutions in NWT regions.
- Knowledge of remote northern power generation, transmission, and distribution infrastructure and systems.
- Knowledge of mechanical and electrical principles governing typical energy projects.
- Skills relating to northern design, construction services, commissioning and operation of energy systems
- Ability to apply knowledge of industry best practices in the energy sector.
- Knowledge of codes and standards applicable to energy projects.
- Skilled in creation, design, guidance, and technical evaluation of energy initiatives.
- Understanding of different economic drivers in rural and remote communities.
- Ability to manage technical consultants and related projects.
- Ability to apply knowledge of federal, provincial, and territory energy strategies and climate change programs.
- Verbal and written skills and ability to interact with industry, government agencies, Indigenous organizations, and the public.
- Able to resolve conflicts and differences of professional opinion.
- Ability to communicate technical energy subject matter to the general public.
- Knowledge of, and/or the ability to acquire and apply knowledge of energy monitoring and verification software (RETscreen or equivalent).
- Ability to track federal energy infrastructure funding opportunities and work with partners to identify and define new projects to support the Energy Management Strategy.
- Ability to commit to actively upholding and consistently practicing personal diversity, inclusion, and cultural awareness, as well as safety and sensitivity approaches in the workplace.

## **Typically, the above qualifications would be attained by:**

Bachelor's Degree in Engineering with a Professional Engineering designation, and five (5) years of relevant experience in working in the energy field, that also includes one (1) year of experience providing supervision or leading a team.

Equivalent combinations of education and experience will be considered.

## **ADDITIONAL REQUIREMENTS**

### **Position Security**

- 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