

New

Ministry

Infrastructure

Describe: Basic Job Details

Position

Position ID

Position Name (200 character maximum)

Energy and Sustainability Specialist

Requested Class

Engineering & Related Level 2

Job Focus

Operations/Program

Supervisory Level

00 - No Supervision

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Vacant (New)

Organizational Structure

Properties, Property Management/ PMP I

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Building Support Manager

Design: Identify Job Duties and Value

Job Purpose and Organizational Context

Why the job exists:

The Energy and Sustainability Specialist is a key resource supporting Alberta Infrastructure's Energy Management Plan and broader sustainability initiatives. This role provides technical expertise in energy management, greenhouse gas (GHG) reduction, and sustainable building design across government-owned and publicly funded facilities, including schools and hospitals. The position coordinates the delivery of Alberta Infrastructure's energy management program and plays a central role in reducing energy consumption and GHG emissions. Responsibilities include monitoring energy performance, conducting audits, identifying conservation opportunities, and updating the Energy Management Plan. In addition, the position contributes to the development of sustainability design standards and guidelines for the construction, maintenance, and upgrading of facilities. The Specialist actively participates in projects by providing advice on sustainable design, energy efficiency, and commissioning practices, working closely with multidisciplinary teams to optimize building performance. The role requires maintaining current technical knowledge in sustainability, energy, and construction practices, and integrating these advancements into both operational practices and project delivery.

Key Responsibilities

- Monitor and analyze utility consumption (electricity, water, and natural gas) across government-owned facilities, reporting on performance trends and supporting data-driven decision-making.
- Conduct ASHRAE Level 1 and Level 2 energy audits to identify energy and GHG reduction opportunities in government-owned and managed facilities and prepare action plans.
- Provide technical expertise in sustainable building design, commissioning, and energy performance for the construction, maintenance, and upgrading of publicly funded facilities.
- Develop and support the implementation of sustainability design standards and guidelines to improve long-term performance of infrastructure.
- Serve as an in-house subject matter expert on building operations, energy efficiency, GHG reduction, and sustainability issues, collaborating with Property Management and other stakeholders to implement best practices.
- Collaborate directly and indirectly with TPM contractors, electricians, HVAC contractors, engineers, architects, and other professionals to ensure successful project outcomes.
- Maintain knowledge of industry developments, sustainability practices, and emerging technologies, integrating these into design processes and operational strategies.
- Represent Alberta Infrastructure on committees, promoting the exchange of knowledge, best practices, and innovations in energy management and sustainability.

The Energy Specialist works out of the Alberta Infrastructure head office in Edmonton and is required to travel throughout the province as required to carry out responsibilities. Reporting to the Building Support Manager, this position functions within applicable legislation, regulations, policies, directives, and guidelines.

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

1. Utility and Energy Management

Monitors, analyzes, and reports on utility (electricity, water, and natural gas) consumption across government-owned facilities, providing recommendations and strategies to optimize energy performance.

- Examines alternative strategies for electricity and natural gas purchases, maintaining up-to-date expertise on risks, challenges, and benefits.
- Develops recommendations for Alberta Infrastructure's electricity and natural gas portfolio through research and analytical evaluation of options.
- Ensures compliance with, and makes recommendations to improve, electricity and natural gas hedging and retail service contracts.
- Manages the (PROPEL) Energy Management Information System to analyze and maintain utility data reports for managers, supporting decision-making and consumption verification.
- Acts as lead for large utility contracts, including execution, renewal, replacement, and dispute resolution with utility companies.
- Serves as resource (if required) for retail service contracts, managing site additions/removals, reviewing utility billing accuracy, and recommending approvals.
- Calculates and reports Energy and GHG Performance Measures for the Ministry's Annual Report.

2. Energy and GHG Reduction Projects

Facilitates the Property Management Branch's energy and GHG reduction plan through audits, conservation measures, and project coordination.

- Performs ASHRAE Level 1 and 2 energy audits, including:

- Reviewing utility bills to establish energy baselines.
 - Conducting site visits to inventory equipment and develop building energy profiles.
 - Identifying conservation opportunities with cost, savings, payback, and GHG reduction analysis.
 - Preparing audit reports in accordance with Procedures for Commercial Building Energy Audits, 2nd Edition, including three-year action plans.
 - Scheduling and conducting follow-up meetings as required.
- Assists Facility and Project Managers in developing scopes and procurement documents for energy conservation projects.
 - Monitors results and verifies savings from conservation initiatives.
 - Provides commissioning expertise to support implementation and long-term performance of new or upgraded systems.

3. Sustainable Design, Standards, and Project Review

Provides technical expertise in sustainable building design, standards development, and project design review to enhance energy efficiency and sustainability outcomes.

- Reviews sustainability submissions for projects, including drawings, specifications, energy models, and supporting documentation for sustainability requirements.
- Advises project teams when sustainability requirements are not adequately addressed and identifies gaps in energy modeling for NECB and ASHRAE 90.1 compliance.
- Provides feedback to projects on opportunities to incorporate sustainable design practices and energy-saving strategies into project scope.
- Contributes to the development and continuous improvement of Alberta Infrastructure's Technical Design Requirements, ensuring leadership in sustainable building design.
- Identifies opportunities and translates lessons learned into best practices for design standards. Monitors upcoming changes to building codes, LEED certification, and other relevant standards to inform updates.
- Provides input to policy drafts, briefings, position papers, background material, and reports identifying important sustainability issues.

4. Advisory Services and Technical Expertise

Acts as an in-house resource on energy, sustainability, and building operations, supporting Alberta Infrastructure staff and partners.

- Provides advice and guidance to Facility Managers, Property Management staff, and project teams on energy technologies, operational practices, and regulatory requirements.
- Reviews and evaluates reports prepared by external consultants, providing recommendations to improve performance, cost efficiency, and sustainability outcomes.
- Delivers technical assistance and performance analysis for energy systems and equipment.
- Evaluates new programs, proposals, and emerging technologies to identify cost-effective improvements.
- Monitors industry trends and integrates best practices into operational and project delivery processes.

5. Representation, Partnerships, and Knowledge Exchange

Builds strong partnerships and represents Alberta Infrastructure across committees, associations, and industry bodies to advance energy management and sustainability objectives.

- Prepares research, briefing notes, correspondence, and recommendations on utility operations, energy

initiatives, and GHG-related matters.

- Represents Alberta Infrastructure on committees and working groups, promoting best practices and forging partnerships.
- Acts as an ambassador for energy and environmental initiatives, sharing departmental experience with external organizations.
- Maintains relationships with organizations including Alberta Energy Efficiency Alliance, Natural Resources Canada, Canadian Green Building Council (CaGBC), Canadian Board for Harmonized Construction Codes, and International Building Performance Simulation Association (IBPSA) - Canada. Networks through professional associations, conferences, forums, and specialized technical courses to maintain expertise and promote Alberta Infrastructure's leadership role.

Problem Solving

Typical problems solved:

Scope (Magnitude and Impact)

- Energy management involves all facilities within the Property Management portfolio.
- With increasing public awareness of the environmental impacts of buildings, active responsibility and accountability for environmental and energy management has become an expectation.
- The work of this position has financial impacts in relation to utilities costs as well as impacting tenant satisfaction, worker comfort, public opinion, and societal expectations.

Types of guidance available for problem solving:

New ideas and initiatives are often based on evaluation of pilot projects with which this position is involved.

The Energy Specialist functions with considerable independence, exercising professional judgment and discretion when determining priorities and areas of focus, working with diverse stakeholders, and handling complex responsibilities with demanding and concurrent deadlines. Matters with potential for significant impact on business operations, resource allocation, and client / stakeholder relations are discussed with the Building Support Manager, who is also available for assistance when dealing with highly sensitive or contentious situations.

Direct or indirect impacts of decisions:

- Environmental management is a multi-faceted, continuously evolving, dynamic process ranging from personal behaviour of occupants and corporate culture to the balance between perception and fiscal results.
- Strategic and creative solutions are required because environmental management is primarily based on influence. Controls are available as support but do not assist in adapting driving principles; thus the majority of this position's interactions require a complex balance between persuasion and control.
- The position requires the ability to work with minimal guidance from others and to make decisions in nebulous situations often involving conflicting information.

Key Relationships

Major stakeholders and purpose of interactions:

- This position works with a wide range of organizations and stakeholders, including contractors and consultants, large for-profit corporations, government agencies and departments, and non-profit associations. This position also interacts with various levels of Alberta Infrastructure staff including Directors, Facilities Managers, and front-line operational representatives.
- This position is responsible for diverse activities, including planning, direction and coordination, communication, logistics, facilitation, analysis, reporting, and implementation of plans and projects relating to utilities and the environment.
- The work requires a wide breadth of knowledge pertaining to energy management and GHG reduction

initiatives.

- The work impacts a wide range of facilities, including correctional facilities, office towers, courthouses, research facilities and museums, and related operations staff.

The Energy Specialist has regular contact with:

- the Building Support Manager, the Building Support Unit, and other Building Support staff to respond to enquiries, provide options and solutions, exchange information, facilitate problem solving, resolve issues, and collaborate.
- Alberta Infrastructure Facilities Managers, Facilities Coordinators, and project managers to provide reports, facilitate problem solving, provide expertise and recommendations, and contribute to energy conservation and energy management projects.
- Technical Services Branch (Energy Coordinator, Energy Engineers) to respond to enquiries, exchange information, resolve issues, provide options and recommendations, and contribute to projects.
- DIRECT Energy Corporation (Accounts Manager, Retail Pricing and Structuring Manager) to resolve issues and concerns relating to contracts, remain current on products and services, establish and maintain relationships, and exchange information.

Required Education, Experience and Technical Competencies

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Bachelor's Degree (4 year)	Engineering		PEng

If other, specify:

Job-specific experience, technical competencies, certification and/or training:

The position requires a Bachelor of Science in Engineering (such as Mechanical, Building Science/Envelope or Systems) and eligible to register membership with the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

The position requires 5+ years of specialized experience.

This position supports the Department's Energy and Sustainability Program and requires knowledge and experience in the following:

Knowledge of existing and upcoming building energy codes, Ministry requirements, and other relevant policies, acts, and legislation as related to building sustainability.

Education Level

Bachelor's Degree (4 year)

Focus/Major

Engineering

2nd Major/Minor if applicable Designation

PEng

If other, specify:

- Knowledge and expertise in building energy modeling.
- Strong technical competence and working knowledge of other engineering and architectural disciplines related to building energy.
- Experience with ASHRAE level 1 and 2 energy audits would be an asset.
- Leadership in Energy and Environmental Design (LEED), GA, AP or LEED AP BD+C is required.
- Strong written and verbal communication skills. Must be able to write technical reports.
- Strong research, analytical, consulting, and problem-solving skills.
- Ability to interpret and explain highly technical data for a variety of clients.
- Valid Alberta Class 5 operators license to drive to and from cross ministry meetings, consultant offices and site investigations.

Behavioral Competencies

Pick 4-5 representative behavioral competencies and their level.

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		

Systems Thinking	○ ○ ● ○ ○	Takes a long-term view towards organization's objectives and how to achieve them: • Takes holistic long-term view of challenges and opportunities • Anticipates outcomes and potential impacts, seeks stakeholder perspectives • Works towards actions and plans aligned with APS values • Works with others to identify areas for collaboration	The position is a technical resource to provide engineering services to stakeholders. Prioritizing tasks ensures stakeholders' concerns are resolved in a most cost efficient way. Responsibilities also include supporting other disciplines to deliver high quality infrastructure facilities.
Creative Problem Solving	○ ○ ● ○ ○	Engages the community and resources at hand to address issues: • Engages perspective to seek root causes • Finds ways to improve complex systems • Employs resources from other areas to solve problems • Engages others and encourages debate and idea generation to solve problems while addressing risks	Problems are often unique, requiring solutions that fall outside common practice. Engineering investigations can be very complex, requiring a multi-disciplinary approach and extensive analysis.
Drive for Results	○ ○ ● ○ ○	Takes and delegates responsibility for outcomes: • Uses variety of resources to monitor own performance standards • Acknowledges even indirect responsibility • Commits to what is good for Albertans even if not immediately accepted • Reaches goals consistent with APS direction	This position provides technical support to ensure the constructions or renovations are completed on schedule and on budget. Site investigation should be completed as per property management requirements.
Develop Networks	○ ○ ● ○ ○	Leverages relationships to build input and perspective: • Looks broadly to engage stakeholders • Open to perspectives towards long-term goals • Actively seeks input	This position works with and provide support to Project and Property Managers. It also communicates with consultants and contractors to exchange latest technology information.

		into change initiatives	
		• Maintains stakeholder relationships	