

## Job Description

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<b>Job Title:</b>	Energy Manager
<b>Department:</b>	Plant Operations
<b>Reports To:</b>	Director, Energy & Utilities
<b>Jobs Reporting:</b>	Building Automation Systems (BAS) Programmers Co-op students
	USG 13
<b>Effective Date:</b>	March 2021

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### **Primary Purpose**

Reporting to the Director of Energy & Utilities, the Energy Manager is accountable for three main areas:

- 1) Strategic planning, implementation, and ongoing management of key energy reduction and water conservation initiatives
- 2) Technical guidance and oversight of all University Building Automation Systems balancing end-user requirements, system functionality, environmental sustainability, and financial impact
- 3) Preparing strategy for purchasing utilities (natural gas, electricity, and water) for the University, and development of related reports for University senior administration as well as various levels of government.

University of Waterloo infrastructure comprises of over eight million square feet of space powered by a large 1<sup>st</sup> Class Central Power plant feeding a sophisticated district energy system connecting over eighty major academic buildings.

Responsibilities will align with the Plant Operations goal of contributing towards providing a safe and accessible, invitingly clean and comfortable, functionally-enriched and well-maintained campus environment through service excellence.

### **Key Accountabilities**

#### **Strategic Planning**

- Provides a critical voice in the development of the Campus Master Plan, ensuring that energy reduction and environmental sustainability projects are incorporated into the plans for the future of UW.
- Provides technical advice in the development of construction standards to support long term University energy reduction goals and environmental sustainability targets.
- Works closely with the Director, Energy and Utilities and the Executive Director, Facilities on various studies and strategies to update the HVAC system operation in response to regulatory requirements (Public Health, ASHRAE) and technological advances.
- Participates (and chairs if appropriate) various campus sustainability committees and task force groups championed by UW's Sustainability Office.
- Provides technical leadership in various UW sustainability initiatives establishing ambitious targets and implementation strategies to significantly reduce the carbon footprint of our University.
- Supports the Director and Executive Director in the development of multi-year master plan balancing operational needs, energy reduction targets, and deferred maintenance backlog of the institution.

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- Works closely with the Sustainability Office on a strategic plan of campus utility metering to promote better energy utilization, customer accountability, monitoring, and reporting.
- Promotes the participation of faculty, students and staff relative to energy conservation initiatives.

### **Project Implementation**

- Oversees the implementation of various renovation and retrofit projects within the energy and utilities portfolio ensuring timely completion, budget adherence and quality.
- Prepares technical documentation (scope of work, specifications, cost estimates and schedules) as required for various energy related initiatives.
- Prepares tender documents, advertises as per Broder Public Sector Directive, evaluates bids, and make recommendations on contract awards (large and complex projects).
- Works closely with engineering consultants and designers in the development of contract documents for various energy & sustainability related projects.
- Oversee and guide technical staff providing in house services to various infrastructure and client generated projects.
- Works closely with the Director of Design and Construction on the integration of project commissioning agents and compliance consultants with the University operation ensuring successful completion and hand-over of projects.

### **Operation**

- Works closely with the Associate Director, Utilities and the Chief Stationary Engineer on the support of daily campus operation, scheduled maintenance, preventative maintenance program development.
- Ensures the building re-commissioning is done when required to ensure energy efficient and reliable operation of various HVACR systems.
- Responsible for the collection of building automation system measurements (both automated & manual) and data analysis to coordinate testing, balancing, adjusting and scheduling of systems as required to restore optimum operating efficiency or to make recommendations on potential projects.
- Prepares various efficiency studies on the costs and benefits of running certain combinations of equipment, preparing reports showing where improvements are potentially warranted in control system strategies, and implementing improvements to existing systems.
- Ensures that changing code requirements and technological advancements are integrated into planning of all renovating and retrofit initiatives.
- Ensures that processes within assigned division are in place, understood, and followed ensuring safety and compliance with applicable codes and standards.
- Represents Plant Operations in responding to complaints, concerns, and questions from UW campus community regarding air quality, temperature, and comfort. This includes investigating, trouble shooting and devising acceptable long-term solutions understanding the client needs, system capabilities, costs, and code requirements. Supports the Director and Executive Director in making decisions and announcements in this regard on a large and/or sensitive level.

### **Energy purchasing and reporting**

- Prepares grant applications to various government agencies maximizing the opportunity for external funding.
- Manages analysis of energy utilization and commodity costs to advise the Director and Executive Director on purchase & sale of electricity and natural gas.
- Supports the director with detailed technical information in preparation of meeting with the city, local utility providers, and various consultants.
- Manages analysis of energy consumption data in support of UW Sustainability Office and for submissions to various levels of government.

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- “Works collaboratively with Sustainability Office on development and management of “open data” databases and systems for utilities, where appropriate.
- Monitors changes in government legislature and alerts the Director and Executive of any potential penalties, taxes, and surcharges that will negatively impact utility costs to the University.

### **Staff Management**

- Provides leadership, support, Human Resources guidance, and professional development to assigned staff.
- Conducts Annual Performance Appraisals with direct reports and ensures adherence to annual performance planning and review process within the department.
- Fosters responsiveness, collegiality, continuous improvement, and a high level of customer service throughout the entire Facilities/Plant Operations group.
- Ensures that all talent acquisition is carefully planned, includes foresight of departmental needs, is responsive to technological changes affecting the assigned portfolio, and follows University processes and policies.

*\*All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.*

## **Required Qualifications**

### **Education**

- Undergraduate in Engineering with P.Eng. license (mechanical or electrical preferred).
- Operating Engineer Certification is an asset.
- Certified Energy Manager or Certified Sustainable Development Professional is an asset.

### **Experience**

- Minimum 7 years of progressive experience in the design, commissioning and operation of building HVAC and control systems preferably in institutional or healthcare setting.
- Demonstrated experience managing environmental sustainability initiatives and energy reduction programs.
- Demonstrated project management experience developing project plans, schedules, and budgets.
- Demonstrated experience in facilities management and physical plant administration with clear understanding of the role of administrative services in supporting the academic function of a University.

### **Knowledge/Skills/Abilities**

- Excellent written & oral communication skills, customer service, and teamwork.
- Strong leadership qualities to effectively achieve the mission of the University.
- Sound knowledge in establishing budgets and controlling/monitoring expenditures.
- Knowledge of and ability to establish, enforce, and follow all safety and environmental rules and regulations, and take appropriate precautions to prevent injury and illness in the workforce.
- Ability to exercise prudent judgement, make decisions, and maintain high level of confidentiality.
- Understanding of Building Code, Fire Code, TSSA regulations.
- Demonstrated understanding of complex mechanical & electrical district energy systems.
- Familiar with a computerized maintenance management system (CMMS) for billing, trends analysis, and customer response surveys.
- Demonstrated understanding of energy conservation, sustainability regulations and project management skills.

### **Nature and Scope**

- **Contacts:** This position comes in contact with a wide variety of internal and external people at all levels of responsibility. Must maintain excellent relationships with all of these people. This requires excellent personal and communication skills.
- **Level of Responsibility:** Manages environmental initiatives and environmental sustainability functions and processes that are highly specialized and have high level of financial impact.
- **Decision-Making Authority:** Prepares proposals for prioritization of University initiatives in the areas of environmental initiatives and environmental sustainability. Responsible for management of procurement of electrical power and natural gas purchases. Makes decisions on BAS and HVACR updates, retrofits and programming while balancing end-user requirements, system functionality, environmental sustainability, and financial impact.
- **Physical and Sensory Demands:** Minimal demands typical of a senior position operating within an office environment.
- **Working Environment:** Team environment predominately in an office-based setting, and involving collaboration with all business and operating units within the department and across the University.