Ministry

Environment and Protected Areas

Describe: Basic Job Details

Position

Position ID

Position Name

Emission Offset Engineer

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

Organizational Structure

Division, Branch/Unit

Policy, Climate Regulation and Carbon Markets

Supervisor's Position ID

Supervisor's Position Name

Director, Emission Offsets

Supervisor's Current Class

Senior Manager (Zone 2)

Design: Identify Job Duties and Value

Job Purpose and Organizational Context

Why the job exists:

Alberta's emission offset system is a key mechanism for regulated emitters to meet their requirements under the industrial carbon pricing and emissions trading system, namely the Technology Innovation and Reduction Regulation.

This position provides leadership in the coordination of Alberta's emission offset system including development, implementation and continual improvement.

This specialized professional position provides the department with policy advice, carbon market knowledge, scientific, engineering and technical expertise in the field of greenhouse gas (GHG) mitigation, including areas of quantification, measurement, verification and all aspects of agricultural and biological based protocols.

The Emission Offset Engineer provides technical and engineering analysis and policy development essential to implementing Alberta's emission offset system. The position will work with the internal emission offset and compliance teams, and external stakeholders to advance the development and implementation of our greenhouse gas reduction protocols for use in the system, support the Alberta

credit registry operations, and provide general stakeholder supports. This position will focus on policy, assessment and evaluation of protocols in addition to coordinating cross government initiatives related to the offset system.

The incumbent will have a detailed knowledge of engineering processes, emission sources, carbon markets, and emission control technologies and will develop and evaluate emission quantification methodologies used by Alberta industry and assist in creating linkage with other carbon markets. Comprehensive knowledge of quantification methodologies used to calculate emissions from industrial and non-industrial sources such as transportation, and oil and gas.

The Alberta offset system spans a range of activities including oil and gas reductions, waste management, biological activities, renewable energy and industrial processes.

This position also supports all sectors and overall regulatory system delivery including exploring opportunities for integration with other systems such as other provincial systems, federally or internationally.

Responsibilities

1) Ensure the technical accuracy of underlying science and applicability of the protocols
- Lead development of options and recommendations for new and revised protocols.
- Review, research and analyze submissions to create new or update existing offset protocols.
- Technical and engineering reviews to ensure emission offsets used in the TIER regulation are compliant with system rules.
- Provide leadership on the delivery, creative problem solving and continual improvement of Alberta's offset system.
- Lead the internal procedure process for assessing risk for protocol review and revision.
- Bring expert analysis to quantification of greenhouse gas emission reductions including oil and gas, renewable energy, agriculture, biological and/or natural based industries.
- Review and provide recommendations on deviation requests from stakeholders.

2) Support policy development and the assessment and evaluation of existing and emerging mitigation technologies in area such as renewable energy, agriculture, oil and gas and support development of linkages between Alberta's offset system and other systems.
- Provide advice and recommendations around the integrity of underlying science and applicability of the science to Alberta circumstances.
- Provide advice and recommendations on fungability of credits and possible connections to carbon markets nationally and internationally.
- Provide specialist support to others in the department and the government on complex and emerging climate change and technology issues.
- Participate in the development of government policies, both within and outside of the department, that help the Government of Alberta to meet its emission reduction objectives.

3) Participate in the development of rigorous quantifications protocols for key areas
- Participate in technical development and review processes for quantification methodology documents.
- Participate in the scoring and assessment of the protocols.
- Provide advice and recommendations around the integrity of underlying science and applicability of the science to Alberta circumstances.

4) Identify research needs and priorities in the area of greenhouse gas mitigation, participate in the initiation, coordination and management of the research programs and contracts that are designed to meet the departmental needs and support departmental policies, priorities and legislative requirements.
- Provide analysis and recommendations to senior management. The position must be able to build strong relationships with internal and external engagement and persuade and influence others.
- Coordinate and participate in meetings with project developers, industry associations and other governments.
- Monitor and conduct jurisdictional scans of other systems to anticipate issues with respect to AB's system and compare federal and other provincial regulatory and policy changes in relation to AB's policy,

regulations and legislation.
- Manage external contractors to ensure adherence to regulations and legislation. Evaluate proposals and provide analysis and recommendations.
- Represent Alberta's interests in federal protocol development working groups.
- Provide briefings to executive and others.

5) Manage the contracts for and participate in reverification activities.
- Participate in scoring and assessment of service provider proposals.
- Implement contracts, reviewing and approving deliverables and invoices throughout the year.
- Perform analysis on service provider performance, develop briefings and meet with service providers to communicate expectations.
- Review reverification plans and draft reports.
- Where possible, attend facility site visits related to reverifications.

6) Support other branch, division, department and government priorities, as needed.
- Support climate, offset (beyond carbon) and environmental issues management, programs and policies.
- Provide engineering support to policies and programs.

Problem Solving

Typical problems solved:

1) Ensure the successful design and implementation of policies that take the entire offset system into account, in addition to other government policies
2) Critically review information to assess validity of assumptions, relevance to program criteria, regulatory requirements, and compliance implications.
3) Review, technical analysis and recommendations to director for submissions and deviation requests submitted by external stakeholders for emission offset protocols.
4) Lead interaction with stakeholders who have differing points of view.

Types of guidance available for problem solving:

1) The Technology Innovation and Emissions Reduction (TIER) Regulation enables offsets.
2) The Standard for Greenhouse Gas Emission Offset Project Developers, the Carbon Offset Emission Factor Handbook and existing protocols all provide guidance for problem solving. As do federal regulations where applicable.
3) While these documents providing guidance, the position requires being creative in recommendations and implementing solutions while working within the constraints of the Alberta emission offset system.
4) The position also relies upon the best available science, regulatory requirements and GoA policy for guidance.

Direct or indirect impacts of decisions:

1) Direct impact on defining the kind of activities that are eligible for emission offsets, which influences investment decisions and other socio-economc and environmental objectives.
2) Direct impact on stakeholders success or not in obtaining emission offsets resulting in significant financial implications for stakeholders.
3) Direct impact on precedent setting for the emission offset system.
4) Direct and indirect impact supporting decision making on offset emission related issues under the TIER regulation.

Key Relationships

Major stakeholders and purpose of interactions:

1) Offsets team (internal) to provide consistent feedback, interpretation and response to inquiries regarding the offset system.
2) Compliance team (internal) to ensure compatibility and common approach within the offset system.
3) Project developers (external) to communicate and facilitate consistent interpretation and implementation of the TIER regulation, offsets standard and offset system.
4) Federal and other provincial stakeholders (external) to provide input on behalf of the Government of Alberta and share the Government of Alberta's point of view on issues.
5) General stakeholder or public (external) to communicate and receive feedback on various changes and

updates that impact users of the offset system.

Required Education, Experience and Technical Competencies

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

If other, specify:

Mechanical, chemical, quantification experience, offset markets,environmental science, natural resources.

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

1) General knowledge and ability to research statistics, requirements and scientific fundamentals is required.
2) Ability to take a holistic approach to decision making ensuring the integrity of the Alberta emission offset system.
3) Ability to track multiple projects at various stages of development.
4) Environmental, chemical, or mechanical engineering background with offset market knowledge to lead protocol assessment and analysis for the Government of Alberta.

Behavioral Competencies

Competency	Level A B C D E	Level Definition	Examples of how this level best represents the job
Creative Problem Solving	○ ○ ○ ◉ ○	Works in open teams to share ideas and process issues: • Uses wide range of techniques to break down problems • Allows others to think creatively and voice ideas • Brings the right people together to solve issues • Identifies new solutions for the organization	Protocol development is an up to two year process working with external stakeholders to review the latest science and develop a protocol that works within the offset system. This requires finding creative solutions by understanding other's perspective. It is essential to work with stakeholders to break down barriers and find innovative solutions.
Develop Networks	○ ○ ○ ◉ ○	Makes working with a wide range of parties an imperative: • Creates impactful relationships with the right people • Ensures needs of varying groups are represented • Goes beyond to meet stakeholder needs • Ensures all needs are heard and understood	Decisions made regarding the offset system have significant impact on stakeholders. The team interacts with stakeholders daily and it is essential to develop and maintain strong relationships with both internal and external stakeholders. It is important to work with networks and understand their needs while identifying opportunities to work together to find solutions.

Systems Thinking	○ ○ ○ ◉ ○	Integrates broader context into planning: • Plans for how current situation is affected by broader trends • Integrates issues, political environment and risks when considering possible actions • Supports organization vision and goals through strategy • Addresses behaviours that challenge progress	Offsets team's work often involves interactions with other areas within EPA and various government departments. There is also work with federal and provincial counterparts. It is essential to see political priorities, the entire TIER system, and offset system within it to ensure the best outcomes for the GoA. The work impacts EPA, GoA and external stakeholders. It is necessary to understand and evaluate short term and long term impacts of decisions and work collaboratively in a solutions oriented manner.
Agility	○ ○ ○ ◉ ○	Proactively incorporates change into processes: • Creates opportunities for improvement • Is aware of and adapts to changing priorities • Remains objective under pressure and supports others to manage their emotions • Proactively explains impact of change on roles, and integrates change in existing work • Readily adapts plans and practices	There are changing priorities in this position. From provincial and federal regulations to changes in science and government priorities: they all impact the work. This position requires a creative approach to adapt to changing workflows and necessitates keeping abreast of changing requirements and priorities. The position continually monitors the changing environment to provide guidance on changing processes.