

Memorandum

Date: November 29, 2021

From: John Storey-Bishoff
Acting Executive Director

To: Alberta Emission Offset Stakeholders

Subject: **Project Eligibility under the Quantification Protocol for Greenhouse Gas Emission Reductions from Pneumatic Devices**

This Memorandum replaces the Memorandum issued by our office on July 16, 2021 and November 25, 2021 related to the same subject. The purpose of this Memorandum is to provide clarity on the eligibility for existing and future emission offset projects (including all subprojects) using the “Quantification Protocol for Greenhouse Gas Emission Reductions from Pneumatic Devices”. There are impending changes to vent gas limits that were set out in Alberta Energy Regulator’s (AER) Directive 060 Upstream Petroleum Industry Flaring, Incinerating, and Venting, on May 12, 2020. New limits for venting from pneumatic devices come into effect January 1, 2022 and January 1, 2023.

Section 19(1)(b) of the Technology Innovation and Emissions Reduction (TIER) Regulation sets out that for an emission reduction to generate an emission offset it (i) must result from an action that is not required by law at the time the action is taken, and (ii) must not be required by law at the time the reduction or sequestration occurs. Part 1, section 6(6) of the Standard for Greenhouse Gas Emission Offset Project Developers (Standard) sets out that if a reduction becomes required by law that the emission offset project will not be eligible to generate emission offset on or after the date the reduction becomes required by law.

The department conducted an analysis of the requirements set out in section 8.3.1 and 8.6.1 of Directive 060 in relation to the requirements set out in TIER and the Standard to determine project eligibility. A detailed chart of eligibility is provided in Attachment 1 (Incl.); a high-level summary of eligibility is as follows:

- All emission offset projects and subprojects initiated before January 1, 2022 are eligible to generate emission offsets at least until December 31, 2022.
- Pneumatic instrument (controllers, switches, transducers, and positioners) high to low conversion projects and subprojects initiated on or after January 1, 2022 can generate emission offsets until December 31, 2022.
- Instrument air conversions, electrification or vent gas capture of pneumatic instruments or pumps installed before January 1, 2022 may generate offsets after December 31, 2022 against a low bleed baseline only.

- Device electrification of pumps installed before January 1, 2022 (conversion projects and subprojects can generate emission offsets until the end of the crediting period (provided the reduction remains additional to future legal requirements).
- Pneumatic instruments (controllers, switches, transducers and positioners) and pneumatic pumps installed on or after January 1, 2022 are not eligible to generate emission offsets.
- Pneumatic instruments (controllers, switches, transducers, and positioners) and pumps, which were installed before January 1, 2022 and converted to instrument air, can generate emission offsets until the end of the crediting period with no potential for extension(s).
- Projects and subprojects that are eligible to continue generating emission offsets after January 1, 2023 must follow the quantification guidelines in Attachment 1 and a future revised quantification methodology that will be developed by the department with input from a technical working group.

The department plans to initiate a technical working group as soon as possible to develop a revised methodology for projects that are eligible to generate emission offsets after January 1, 2023.

If you have further questions, please contact AEP.GHG@gov.ab.ca

Sincerely,

original signed by

John Storey-Bishoff, P.Eng.
Acting Executive Director
Climate Regulation and Carbon Markets
Policy Division
Alberta Environment and Parks

Attachment 1: Eligibility for Existing and New Pneumatics Projects after January 1, 2022

Attachment – Detailed Eligibility and Requirements for Pneumatics Projects and Subprojects

Project Type	Emission offset projects and subprojects initiated and listed in an emission offset project on or before Dec. 31, 2021	Emission offset projects and subprojects with an activity start date on or after Jan. 1, 2022
High to Low	High bleed pneumatic instruments (controllers, switches, transducers, and positioners) <u>converted</u> to low bleed pneumatic instruments on or before December 31, 2021 can generate emission offsets until December 31, 2022. D060 8.6.1 (3) and (4).	<p>Not eligible. Pneumatic instruments (controllers, switches, transducers, and positioners) <u>installed</u> on or after January 1, 2022 cannot generate emission offsets. D060 8.6.1 (1) and (2).</p> <p>Eligible. High bleed pneumatic instruments (controllers, switches, transducers, and positioners) <u>in place</u> prior to January 1, 2022 and <u>converted</u> to low bleed on or after January 1, 2022 can generate emission offsets until December 31, 2022.</p> <p>Not eligible. Pneumatic instruments (controllers, switches, transducers, and positioners) <u>converted</u> to low bleed on or after January 1, 2023 cannot generate emission offsets. D060 8.6.1 (3) and (4).</p>
<p>Instrument Gas to Instrument Air</p> <p>Pneumatic Instruments</p> <ul style="list-style-type: none"> • Controllers, • Switches, • Transducers, • Positioners. 	<p>Pneumatic instruments (controllers, switches, transducers, and positioners) <u>installed</u> and <u>converted</u> to instrument air on or before December 31, 2021 can generate emission offsets until the end of the crediting period¹ with no potential for extension(s). The project developer may use version 2.1 of the protocol until December 31, 2022.</p> <p>Going forward from January 1, 2023, project developers must follow the adjusted baseline</p>	<p>Not eligible. Pneumatic instruments (controllers, switches, positioners, and transducers) <u>installed</u> on or after January 1, 2022 cannot generate emission offsets. D060 8.6.1 (1) and (2).</p> <p>Eligible. Pneumatic instruments (controllers, switches, positioners, and transducers) <u>in place</u> on or before December 31, 2021 and <u>converted</u> to instrument air on or after January 1, 2022 can generate emission offsets until the end of</p>

Project Type	Emission offset projects and subprojects initiated and listed in an emission offset project on or before Dec. 31, 2021	Emission offset projects and subprojects with an activity start date on or after Jan. 1, 2022
	<p>quantification guidelines for instrument gas to instrument air outlined below.</p>	<p>the crediting period¹, with no potential for extension(s). The project developer may use version 2.1 of the protocol until December 31, 2022.</p> <p>Going forward from January 1, 2023, project developers must follow adjusted baseline quantification guidelines for instrument gas to instrument air outlined below.</p>
<p>Instrument Gas to Instrument Air</p> <p>Pumps</p>	<p>Pumps <u>in place</u> and <u>converted</u> to instrument air on or before December 31, 2021 can generate emission offsets until end of offset crediting¹ period with no potential for extension(s).</p> <p>Going forward from January 1, 2023, project developers must follow the adjusted baseline quantification guidelines for instrument gas to instrument air outlined below.</p>	<p>Not eligible. Pumps <u>installed</u> on or after January 1, 2022 that operate more than 750 hours per calendar year cannot generate emission offsets. D060 8.6.1 (2).</p> <p>Eligible. Pumps <u>installed</u> on or after January 1, 2022 that operate less than 750 hours per calendar year and <u>converted</u> to instrument air on or after January 1, 2022 can generate emission offsets until the end of the offset crediting period¹ with no potential for extension(s).</p> <p>Eligible: Pumps <u>in place</u> on or before December 31, 2021 and <u>converted</u> to instrument air on or after January 1, 2022 can generate emission offsets until the end of the offset crediting¹ period with no potential for extension(s).</p>

Project Type	Emission offset projects and subprojects initiated and listed in an emission offset project on or before Dec. 31, 2021	Emission offset projects and subprojects with an activity start date on or after Jan. 1, 2022
		Going forward from January 1, 2023, project developers must follow the quantification guidelines for instrument gas to instrument air.
Device Electrification Pneumatic Instruments <ul style="list-style-type: none"> • Controllers, • Switches, • Transducers • positioners 	<p>Pneumatic instruments (controllers, switches, transducers and positioners) <u>installed</u> with electricity on or before December 31, 2021 can generate emission offsets until the end of the crediting period¹, with no potential for extension(s). The project developer may use version 2.1 of the protocol until December 31, 2022.</p> <p>Going forward from January 1, 2023, project developers must follow adjusted baseline quantification guidelines for device electrification outlined below.</p>	<p>Not eligible. Pneumatic instruments (controllers, switches, positioners, and transducers) <u>installed</u> with electricity on or after Jan. 1, 2022 cannot generate emission offsets. D060 8.6.1 (3) and (4).</p> <p>Eligible. Pneumatic instruments (controllers, switches, positioners, and transducers) <u>in place</u> on or before December 31, 2021 and <u>converted</u> to electricity on or after January 1, 2022 can generate emission offsets until the end of the crediting period¹, with no potential for extension(s). The project developer may use version 2.1 of the protocol until December 31, 2022.</p> <p>Going forward from January 1, 2023, project developers must follow adjusted baseline quantification guidelines for device electrification outlined below.</p>
Device Electrification	Electric pumps <u>installed</u> on or before December 31, 2021 and pumps <u>converted</u> to electricity on	Not eligible. Electric pumps <u>installed</u> on or after January 1, 2022 that operate more than 750

Project Type	Emission offset projects and subprojects initiated and listed in an emission offset project on or before Dec. 31, 2021	Emission offset projects and subprojects with an activity start date on or after Jan. 1, 2022
Pumps	<p>or before December 31, 2021 can generate emission offsets until end of offset crediting period¹.</p> <p>Going forward from January 1, 2023, project developers must follow the adjusted baseline quantification guidelines for Device Electrification of Pumps outlined below.</p>	<p>hours per calendar year cannot generate emission offsets. D060 8.6.1 (2).</p> <p>Eligible. Pumps <u>installed</u> on or after January 1, 2022 that operate less than 750 hours per calendar year and are converted to alternative electricity (as defined in the protocol) on or after January 1, 2022 can generate emission offsets until the end of the offset crediting period¹ with no potential for extension(s).</p> <p>Eligible. Pumps <u>in place</u> on or before December 31, 2021 and <u>converted</u> to alternative electricity (as defined in the protocol) on or after January 1, 2022 can generate emission offsets until the end of the crediting period¹.</p> <p>Going forward from January 1, 2023, project developers must follow the quantification guidelines for Device Electrification of Pumps.</p>
Vent Gas Capture	<p>Vent Gas Capture projects can generate emission offsets until December 31, 2022. D060 8.3.1.</p> <p>These project types will be required use a revised adjusted baseline quantification method going forward from January 1, 2023. Projects where the project condition is flaring will only be eligible to generate emission offsets until September 30, 2025.</p>	<p>Eligible. Vent Gas Capture emission offset projects <u>initiated</u> on or after Jan. 1, 2022 can generate emission offsets using the version 2.1 of the pneumatics protocol until the end of the crediting period¹ with no potential for extension(s).</p> <p>These project types will be required use a revised adjusted baseline quantification method going forward from January 1, 2023. Projects</p>

Project Type	Emission offset projects and subprojects initiated and listed in an emission offset project on or before Dec. 31, 2021	Emission offset projects and subprojects with an activity start date on or after Jan. 1, 2022
		where the project condition is flaring will only be eligible to generate emission offsets until September 30, 2025.

¹ If legal requirements come into effect during the offset crediting period, crediting ends as of the date the legal requirements are in effect. See Standard for Greenhouse Gas Emission Offset Project Developers Part 1 Section 6(6). The director will not consider or approve 10 year crediting periods for these project types; only standard 8 year crediting periods are allowed.

Definitions

In Place – a pump or instrument that exists in the pre-project condition.

Initiated – an emission offset project that has submitted an offset project plan to the Registry, and in the case of subprojects is listed in an aggregated project planning sheet that has been submitted to the Registry.

Installed – installation of a new pump or instrument where there was not one before (e.g. at a greenfield site, new pump, or instrument in a system); installation of a replacement pump or instrument where the original is no longer functional.

Converted – a pump or instrument at a brownfield site which has been changed or modified to use a different power source than vented methane (i.e. instrument air, electricity), or a replacement of a functioning pump or instrument with a pump or instrument that controls or prevents gas.

Quantification Guidelines for Instrument Gas to Instrument Air:

1. All instruments (switches/transducers/positioners) serviced by the instrument air system must be low bleed (<0.17m³/hr). See Flexibility Mechanism for Adjusted Baseline below if all instruments are not low bleed.
2. All controllers serviced by the instrument air system must meet the requirements of 8.6.1 (3) (b) in the pre-project condition (time between actions is >15 minutes).
3. All pumps serviced by the instrument air system must be included in the quantification.
4. The air must be metered and projected to the baseline.
5. No offset credits can be generated for vent gas reductions that would have otherwise been required to meet the Overall Vent Gas Limit or if applicable the Direct Vent Gas limit.
6. No extension(s) for instrument gas to instrument air projects.
7. If emission factors from Table C1 in the protocol are part of the methodology, they will be evaluated by the working group for quantification after January 1, 2023.

Flexibility Mechanism for an Adjusted Baseline:

A revised methodology will be considered for instrument air systems that have some or all instruments (switches/transducers/positioners) that are high bleed. A working group to evaluate the details of this potential flexibility mechanism will be initiated.

Quantification Guidelines for Device Electrification:

1. No offset credits can be generated for vent gas reductions that would have otherwise been required to meet the Overall Vent Gas Limit or if applicable the Direct Vent Gas limit.
2. The emission factors for devices and pumps factors from Table C1 in the protocol will be evaluated by the working group.