

GREENHOUSE GAS INDUSTRIAL  
REPORTING AND CONTROL ACT  
Reporting Regulation, Offsets  
Regulation and Compliance  
Framework Policy Intentions Papers

SUMMARY OF PUBLIC COMMENTS

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# Greenhouse Gas Industrial Reporting and Control Act – Policy Intentions Papers Summary of Public Comments

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# Greenhouse Gas Industrial Reporting and Control Act – Policy Intentions Papers Summary of Public Comments

## 1 Introduction

The *Greenhouse Gas Industrial Reporting and Control Act* (GGIRCA or the *Act*) received Royal Assent on November 27, 2014. The main intent of the *Act* is to enable performance standards to be set for industrial facilities or sectors by listing them within a Schedule to the *Act*. The *Act* also streamlines several aspects of existing greenhouse gas (GHG) legislation and regulation into a single legislative and regulatory system. To uphold the province's commitments to having the cleanest liquefied natural gas (LNG) operations in the world, the *Act* includes a GHG emissions intensity benchmark for LNG facilities.

The Climate Action Secretariat in the Ministry of Environment (the Ministry) is in the process of developing regulations under the *Act*. It is anticipated that these regulations will come into force by the end of the year.

This report provides a summary of stakeholder comments received as part of the consultation process associated with the development of these regulations.

### 1.1 Background to the consultation process

The Climate Action Secretariat sought comments from stakeholders, First Nations and the general public on the *Reporting Regulation* Policy Intentions Paper between March 19 and April 20, 2015. Comments were collected on the *Offsets Regulation* and Compliance Framework Policy Intentions Papers between July 22 and August 21, 2015.

The intentions papers were made available on the Ministry's website (see: <http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs/legislation-regulations>) and provided a summary of government goals and objectives, a discussion of the Ministry's intentions regarding the contents of the proposed regulations, as well as the process for providing feedback to the Ministry.

### 1.2 Purpose and format of the *Summary of Public Comments* document

This document provides a synopsis of the comments, without specific attribution.

The complete set of responses received through the consultation process will be reviewed and considered by the Ministry during the development of the regulations.

The summary of comments is arranged by topic as presented in the intentions papers. Direct excerpts from submissions are included in quotation marks (“ ”). Square brackets ([ ]) indicate inferred or contextual terms.

### 1.3 Description of responses received

Approximately 20 responses to the intentions papers were received by email, and have been reviewed for this summary of stakeholder comments. Respondents included representatives from the private sector, First Nations communities, non-profit organizations and member associations.

## 2 Reporting Regulation Intentions Paper: Summary of Public Comments

### 2.1 Design principles for emissions reporting

A number of design principles are being considered in developing the proposed *Reporting Regulation*, including compatibility, prioritization, prescribed quantification methods, risk-based third-party verification, and access to information. These principles are consistent with those underpinning most mandatory GHG reporting systems (see *Reporting Regulation – Policy Intentions Paper*, section 3.2).

Respondents who commented on this statement expressed support of the Ministry’s intention to ensure B.C.’s reporting regulations are compatible with other “leading standards” since this “minimizes compliance costs for companies operating in multiple jurisdictions and enables greater coordination between those jurisdictions over time.”

With respect to prescribed quantification methods, one respondent commented that the “methodology used to measure the emissions from LNG operations seems to be reasonable.” Another recommended that the Ministry refer to “the API document ‘Consistent Methodology for Estimating Greenhouse Gas Emissions from Liquefied Natural Gas (LNG) Operations.’”

With respect to access of information, one respondent expressed “support [for] the intention to continue publishing the information collected” and further suggested that, “given B.C.’s effort to align reporting rules with other leading jurisdictions, it would also be worthwhile exploring opportunities to make data jointly available with those jurisdictions.” Another respondent noted that “public and public interest groups should have access to all reporting information that the third-party verifiers use... [in order] to ensure public confidence.”

With respect to third-party verification, while several respondents acknowledged the need for “robust industrial greenhouse gas emission information that is sufficiently accurate as to be able to inform policy in British Columbia,” others cited that the verification process is “onerous and costly.” One respondent noted that “B.C. is one of the few jurisdictions that requires third party verification for the reporting of GHG emissions” and commented that third-party verification is not aligned with the principle of compatibility since “none of the following leading jurisdictions requires third party verification for greenhouse gas reporting: Environment Canada, U.S. EPA, Australia, and the UK.” The respondent recommended that “third-party verification not be required for simply reporting GHG emissions.”

A number of respondents suggested changes to the third-party verification requirement that would “reduce the verification burden while maintaining data integrity.” One respondent expressed appreciation for “the Government’s recognition of [the] cost challenge and...the proposed modification for verification site visits,” but recommended that “verification requirements...be adjusted to apply differently to facilities that have an emissions limit

compliance obligation [than to] those that only have a reporting obligation.” The respondent proposed adjustments that included “the removal of the verification requirement, [permitting] verifications to be conducted to a limited level of assurance, [or adjusting] the verification such that if a reporting facility obtain a positive verification with no qualifications, that it may have a reduced verification burden for a defined set of years.” Another respondent recommended “[changing] verification thresholds (especially with respect to linear facilities) and the site visit schedules.”

Other specific comments on verification included:

- “Risk-based verification is reasonable, but it should be monitored periodically, and the verification system should be capable of being tightened up if necessary. There should also be provision for verification on the basis of complaints from the public and other interested parties”; and,
- “The costs and benefits of verification of a reporting-only system should be reassessed periodically as it seems likely that costs of verification outweigh the added value, and that annual verification could be replaced with an audit or on-demand verification process.”

## 2.2 Definitions

The proposed regulation will include definitions to specify application and interpretation of the regulation. They will largely be the same as in the existing regulation’s Section 1, and build on Western Climate Initiative and Environment Canada terms and definitions (see section 4).

### 2.2.1 Liquefied natural gas operation

A definition of a liquefied natural gas operation will be included in the proposed regulation. It will be based on the definition in the *Liquefied Natural Gas Income Tax Act* (Part 1, Sections 7 and 8), which covers all GHGs from the point where natural gas enters the plant to where it is loaded onto a ship, train or other transportation system for delivery to market (see section 4.1).

One respondent supported the “inclusion of sources listed in 4.1 under the benchmark” but also expressed concern about the “omission of upstream emissions from B.C.’s treatment of LNG development. The province’s LNG strategy promised that LNG from B.C will have lower life cycle greenhouse gas emissions than anywhere else. This is particularly concerning given no climate change policy applies to more than one third of the greenhouse gas emissions from B.C.’s industrial sector.” Similarly, another respondent recommended that B.C. “include emissions from upstream, and midstream natural gas operations. Internationally, focus has increased on the accuracy of natural gas GHG performance calculations and their inclusion of upstream emissions (e.g. fugitive emissions).”

This respondent also expressed concern about the “proposed treatment of [CO<sub>2</sub>] formation...it introduces an incentive to strip more formation CO<sub>2</sub> from raw gas in the upstream where no

climate change policy applies so that it is not captured by the benchmark...this problem could be fixed through the reporting regulation by requiring operators to report the full amount of formation CO<sub>2</sub> removed from their gas, regardless of where the CO<sub>2</sub> is vented.”

## 2.3 Reporting requirements

### 2.3.1 Addition of job title of operation representative to registration requirements

The proposed regulation will include a requirement that the job title of the operation representative be reported as part of the registration requirements. This will aid in the Ministry’s due diligence and ensure that the operation representative is an officer of the company (see section 5.1).

A respondent expressed support of this requirement, but cautioned that “there is very little consistency in job titles across the industry,” making it potentially challenging for the Ministry to determine “that the operation representative is an officer of the company.”

### 2.3.2 First year of regulation

The proposed regulation will standardize the point at which an LNG operation’s obligations under the *Act* begin (see section 5.2).

One respondent requested clarification on whether “operation” in the context of “reporting begins the first year that an ‘operation’ exceeds 10,000 tCO<sub>2</sub>e” refers to “the LNG facility rather than the Linear Facility operation.”

Another respondent noted their support of “the intention to begin applying the regulation in a standardized manner and as early as possible. Even if initial greenhouse gas intensity is higher than anticipated, the structure of the legislation allows alternative compliance pathways, so there’s no reason to delay implementation beyond its operation date.”

Other specific comments included:

- “We support the intention to keep the reporting and verification thresholds at 10,000 and 25,000 tonnes respectively”; and,
- “We would request that the Ministry contemplate raising the minimum individual reporting threshold from 1,000 tCO<sub>2</sub>e to 10,000 tCO<sub>2</sub>e to reduce the administrative burden of reporting...many reports over the 1,000 tCO<sub>2</sub>e threshold only [occur] once because they are due to drilling and completion activities.”

### 2.3.3 Modification of the “de minimis” rule so it applies to each individual facility within a linear facilities operation

The proposed regulation will include a ‘de minimis’ approach for using a replacement methodology for estimating GHGs in a linear facility operation (LFO). The approach will apply to each individual facility with emissions of 10,000 tCO<sub>2</sub>e or above (see section 5.3).

The majority of respondents on this topic expressed concern about the potential additional cost and administrative burden associated with applying the de minimis threshold to individual facilities, while also noting that the approach will not “materially affect the estimation of emissions from the linear facilities operation.” For example, one respondent commented that, “[while] the de minimus [sic] clauses in the regulation currently allow for the application of a quantification methodology that is less intensive than those prescribed in the Western Climate Initiative methodologies, these sources must nonetheless be quantified. This often requires tedious data collection for emissions sources which ultimately have minimal impact [on] the total values reported.” A respondent suggested that this process would be “excessively costly,” while another noted “it will add to the administrative burden since it will be necessary to test each facility to see whether a replacement methodology can be applied. Different methods might be required for different facilities, increasing complexity for reporters, verifiers and reviewers. In addition, it is a departure from past practices, which [could lead to] inconsistencies.”

One respondent suggested that the Ministry “retain the current approach...we recommend that the same de minimus [sic] approach be applied to...the aggregate of facilities emitting less than 10,000 tCO<sub>2</sub>e.” Another respondent recommended that the Ministry “consider the addition of a de minimus [sic] clause for the reporting for facilities that [have] only a reporting obligation, and not an intensity compliance obligation.”

#### 2.3.4 Add a requirement to report changes in management and control of reporting operations

The proposed regulation will include a requirement that reporting operations report (1) the sale of a facility they manage or control, (2) the acquisition of a facility they manage or control, (3) the closure of a facility they manage or control, and (4) the opening of a facility they (would) manage or control (see section 5.4).

Two respondents expressed concern that this requirement would be “administratively onerous to reporting organizations.” One respondent recommended that “such a requirement be applicable only for ‘facilities’ emitting in excess of a threshold such as 1,000 tCO<sub>2</sub>e per year,” while another noted that “the types of changes listed...are reported to other B.C. government departments...[If] single-window reporting cannot be achieved, then it is requested that the changes in management and control of reporting operations be summarized and reported at the same time as emissions are reported (rather than as changes occur during the course of the year.

A respondent also requested clarification on “the emission threshold when the requirement to report changes [applies],” suggesting that “at a minimum a threshold and expected timing need to be specified... [and that] the Ministry consult with OGC [Oil and Gas Commission] to determine if this information [is] already available through the OGC or other Ministries.”



## 2.4 Quantification methods to be used in reporting

### 2.4.1 Annual Liquefied Natural Gas Production

The LNG GHG intensity benchmark requires the reporting and verification of an operation's liquefied natural gas production annually. The quantification requirements in the *Liquefied Natural Gas Income Tax Act* and the proposed regulation will be aligned in order to reduce monitoring and reporting burden and ensure consistency (see section 6.1).

One respondent indicated that “the reference provided (WCI.363 sections q and r) does not provide a useful method for the conversion of natural gas gaseous volume to a mass of liquefied natural gas...[because the] referenced methods use the ideal gas law...[Since] LNG production will be a liquid volume, conversion to mass requires the liquid density of the product.”

### 2.4.2 CO<sub>2</sub> in feedstock gas

The proposed regulation will require that operations monitor the volume of CO<sub>2</sub> vented, in accordance with the prescribed methodology [WCI.360](#) in the existing *Reporting Regulation* (see section 6.2).

No specific responses were received on this topic.

### 2.4.3 Electricity generated off-site

The proposed regulation will require that GHGs resulting from purchased or bartered electricity be quantified and reported in order to help maintain the integrity of the benchmark. On an annual basis, a standard electricity grid GHG emissions factor for LNG operations will be calculated based on a three-year rolling average of the GHG intensity of B.C.'s electricity grid. The calculation will incorporate electricity generation in B.C. and electricity imported into B.C. (see section 6.3).

One respondent noted their support for “the inclusion of greenhouse gas emissions electricity generated outside B.C. in determining the emission intensity for electricity used by LNG facilities.”

Another respondent requested clarification on “the rationale provided for LNG operations to report indirect GHG emissions...[since] LNG facility operators have little to no control over... how the B.C. power grid is operated [and therefore] it should be the responsibility of the power grid operators to report and manage their GHG emissions.” This respondent emphasized that “since GHG emissions associated with power generation are already subject to the carbon tax, LNG facilities already have an incentive to manage and minimize their operating costs.”

Another respondent noted that “[clarification] is required to determine whether this formula is to be used for any electricity within the operational boundary of the LNG facility, or if the calculation should only be applied to the electricity associated [with] the natural gas liquefaction process... [A] single B.C. Hydro meter is present at each of our LNG facilities, making the

separation between electricity used for liquefaction versus other uses...difficult [and expensive] to achieve.”

## 2.5 Verification

### 2.5.1 Verification deadline

The proposed regulation will include a verification deadline of May 31 of the year in which the emissions report is due, which is consistent with the existing regulation. The same verification body would not be able to verify reporting data at a given company’s facilities for longer than a six-year time period (see section 7.1).

One respondent noted that “when the regulation was first issued verification was required by September 1. This date worked well for industry because it allowed us to manage our yearly workload...[Moving] some deadlines to the third and fourth quarters of the year helps all companies justify staffing to fulfill reporting requirements instead of relying on short-term consultants. The continuity of full time permanent staff helps to improve data consistency and quality.” The respondent also recommended that “the reporting deadline match the verification deadline...[so that] issues [that] are identified in the verification process...[don’t result in] a high volume of supplementary reports.”

Another respondent expressed concern regarding the six-year time limit on verification bodies, noting that “the time and cost for auditors to become familiar with an organization’s GHG reporting systems is significant...this requirement appears to be excessive given that financial auditing does not impose such restrictions. It is suggested that the proposed legislation recommends the changing of verifiers every 6 years, as well as impose restrictions on lead verifiers similar to requirements for financial audits.”

### 2.5.2 Modify requirements for verification site visits

The proposed regulation will allow for verification site visits once every two reporting periods under specified conditions, and enable a verification body to require submission of evidence that illustrates these conditions have been met (see section 7.2).

While two respondents noted their appreciation of “the Government’s recognition of [the] cost challenge [associated with verification]” and the suggested change to the frequency of site visits,” another respondent expressed concern about the intention to allow for “verification site visits every two years instead of every year. The approach seems reasonable for smaller facilities, but we recommend annual verification site visits for larger facilities (e.g. with greenhouse gas emissions in excess of 100,000 tonnes per year). These facilities are material to the province’s overall greenhouse gas emissions, so it is important to be alerted to any problems as soon as possible. In addition, the verification costs should be more manageable for larger facilities due to the economies of scale involved.”

One respondent requested clarification on the required timing of the site visits, and recommended that the “regulations balance the need to observe the facility in ‘normal operations’ and allow operators to plan site visits in a safe and efficient manner.”

## 2.6 General requirements

### 2.6.1 Introducing a regular process for quantification methods review and update if needed

The proposed regulation will include provisions for regular review and update (if needed) of quantification methods by B.C. every three years (see section 8.1).

Several respondents noted their support of regular quantification method review, with one indicating that it “improves certainty for industry.” In terms of the timing of the reviews, a respondent commented that “since it is proposed that ad hoc changes still be considered, it is suggested that the review period be once every five years.” The respondent also recommended that the review “not take place between January 1<sup>st</sup> and May 31<sup>st</sup>, when industry is occupied with meeting reporting and verification obligations.”

Other specific comments included:

- “[We] support the addition of an intention to regularly study the accuracy of the protocols for more uncertain sources of greenhouse gas emissions – particularly those that aren’t based on actual measurements or highly certain calculations”;
- “[Industry] continues to have concerns regarding specific requirements in WCI and...continue[s] to seek greater flexibility in quantifying emissions...we now have four years of data which demonstrates very little variability from certain emission sources. It is suggested that rather than continuing the process of monitoring and metering these sources of emissions, resources can be best used for reduction initiatives”;
- “The scope of the review should include the overall system, so that opportunities for improvements would also be considered and addressed. We suggest including in the regulation a clause for an appropriate amount of time before the change to the regulation comes into effect. This is to allow us time to make the necessary changes to data collection to be able to fulfill the new method.”

## 2.7 Other comments

A number of respondents commented that they appreciated the opportunity to provide input on the proposed regulation. One respondent expressed support of the Ministry’s efforts to “provide meaningful and appropriate policies that target the management of GHGs” and another commented that “robust information helps companies understand opportunities to better manage their greenhouse gas emissions and enables government to develop more effective policies. That

same robust information is also helpful to academic and non-governmental organizations seeking to understand B.C.’s greenhouse gas emissions and potential opportunities to reduce them.”

One respondent commented that “this proposed intentions paper represents meaningful progress towards a strong, principle-based regulation for the purposes of the annual reporting of industrial greenhouse gas emissions,” but also noted that “there remain areas where the reporting of greenhouse gas emission information can be streamlined to increase efficiencies and reduce the administrative burden posed by the regulation on both government and industry...any reduction in the extensive administrative burden of the reporting regulation can lead to more resources available to apply toward cost-effective GHG emission reductions and the protection of industry competitiveness.”

A respondent requested confirmation “that there are no planned changes to the Schedule of Regulated Operations and Emissions Limits in the foreseeable future” and suggested that “any change in scope of the proposed regulatory changes should be well-informed with industry input.”

Several respondents provided comments on topics outside the scope of the intentions paper, most particularly on the current *Reporting Regulation* and on the intensity benchmark. Specific comments about the current *Reporting Regulation* included:

- “The sampling and analysis [of coal consumed for stationary combustion purposes] is time consuming and costly...in cases where direct measurement data demonstrates sufficient consistency, we believe that the regulation should be more explicit in permitting the use of a defensible alternative quantification methodology...[We] recommend that the Government of British Columbia...update the alternative parameter measurement clause to allow for approval that may be applicable for a period greater than one year; update the alternative parameter measurement clause to provide greater clarity as to what criteria must be met in order to achieve a successful alternative parameter request; [and] update the alternative parameter measurement clause to allow for submissions later in the year, subject to the request being made in light of supporting data collection, and not because of missed data collection”;
- “There are numerous examples...where the regulatory definitions [in Schedule A of the current reporting regulation] differ from those in the referenced WCI quantification methodologies...[We] recommend that the Government of British Columbia [review] Schedule A of the current regulation – or the equivalent table in the new regulation – against the definitions and guidance provided by WCI and identify and reconcile all inconsistencies of definition and scope”;
- “The reporting requirement in the existing regulation seems to shift the onus for completeness away from the emitter. The regulation should ensure the emitter is responsible for the completeness and accuracy of reporting. For example, there is some controversy over

fugitive emissions that may result from natural gas production, and equipment based measurements have been found in some cases not to jibe with atmospheric measurements”; and,

- “Landfill sites should not be excluded from the requirement to measure and report their emissions”.

Specific comments about the intensity benchmark included:

- “Under the Act, LNG emissions could increase without limit while still being compliant...[An] LNG industry would challenge B.C.’s ability to meet its legislated reduction targets. We urge the government to move as quickly as possible to absolute emissions standards for LNG production and to reconcile the Greenhouse Gas Industrial Reporting and Control Act with B.C.’s legislated GHG reduction targets in terms of absolute reductions”;
- “We question if the reporting regulation will be adequate to ensure that any LNG facilities in B.C. have the lowest greenhouse gas emissions per unit of LNG produced...it is already possible to surpass the current benchmark of 0.16 tonnes of greenhouse gas emissions per tonne of LNG. Without a process to improve the benchmark over time, B.C. will likely be passed by other jurisdictions. While outside the scope of the reporting regulation, we encourage the province [to] continue to strengthen climate policy for LNG terminals and the rest of the economy as articulated in the province’s Climate Progress report. Climate Action Plan 2.0 is an excellent opportunity to address these gaps”;
- “[The] intensity target allowed for LNG production...is not appropriately challenging. A better standard to achieve the promised ‘best in the world’ performance would be half that, or a requirement for all energy needs to be met from zero-carbon sources”;
- “[The] numerator [for the intensity benchmark] is based on a global warming potential (GWP) from the Intergovernmental Panel on Climate Change Fourth Assessment report. Our concern is the potential changes in GWP resulting in [a] significantly higher intensity metric as measured at the facility. It is suggested that the B.C. MOE includes wording that considers readjusting the...intensity metric should new GWP values be adopted”;
- “[We are] concerned with the application of this intensity metric of use at natural gas storage facilities...LNG intensity at these sites could be high simply due to the denominator in the intensity calculation, LNG production, being low or approaching zero...due to the fact that, in the case of a storage facility, in some years the only ‘production’ might be the liquefaction of natural gas simply for tank storage (no send-out) with only limited extra production to replace LNG gas-off from the storage tank. [We believe] these scenarios need to be further explored prior to regulation of these storage facilities. The suggested regulatory approach

may have negative unintended impacts to utility rate-payers who currently receive rate and reliability benefits from LNG storage facilities”.

Additional specific comments included:

- “B.C. should use globally accepted GHG emission values for all stages of LNG activities (extraction, transportation, compression, combustion, etc.)”;
- “Although the submission of a diagram makes sense for Single Facility Operations, we recommend the removal of the requirement to submit a diagram of our Linear Facilities Operations for upstream oil and gas producers. Trying to capture all our activities on a single PFD [sic] is not practical. The additional upload of WCI.362(g) should only be required for the LFO reports rather than every report type”; and,
- “[We request that] a bulk upload tool be created, in consultation with industry, for uploading data into the online system to reduce the administrative burden of reporting.”

## 3 Offsets Regulation Intentions Paper: Summary of Public Comments

### 3.1 Background and context: Existing emission offsets regulation

The proposed GGIRCA *Offsets Regulation* will be informed by the *Emission Offsets Regulation* (EOR) introduced in 2008 under the *Greenhouse Gas Reduction Targets Act* (GGRTA); as well as by B.C.’s work with Western Climate Initiative, Inc. partners on the design of a regional emission trading and offset system (see *Offsets Regulation* – Policy Intentions Paper, sections 1 and 3).

### 3.2 Offset criteria

The proposed *Offsets Regulation* will set out criteria for the GHG reductions and removals that would be eligible as offsets under the GGIRCA. The requirements will align with internationally-accepted offset criteria, and ensure that offset projects are real, verifiable, incremental and permanent (see section 4).

Two respondents noted their general support of the Ministry’s intention to establish internationally-accepted criteria, with one respondent specifying support for criteria that will “[ensure] that the future compliance reductions/removals are real, verifiable, incremental and permanent” and the other respondent endorsing criteria that will ensure these projects are “real, measurable and verifiable.”

#### 3.2.1 Offset characteristics

##### 3.2.1.1 Clear ownership

The project proponent should have a superior claim of ownership of the GHG reduction or removal represented by the offset project compared with that of any other person (see section 4.1).

One respondent recommended that the language pertaining to a superior claim of ownership be modified to, “The project proponent ‘must’ have a superior claim of ownership” at the time of verification.

Another respondent noted support of the intention to ensure project proponents have superior claim of ownership, but suggested that project proponents “be empowered to ‘structure arrangements’ among various entities involved in the project and enter contractual arrangements that establish ‘rights and responsibilities of all parties involved in the project.’” The respondent recommended that (1) the *Offsets Regulation* refrain from “[mandating] specific contract terms or provisions for parties” so that “[market] participants [are] able to acquire offsets and hedge exposure to price risk within their existing business and financial frameworks”; and (2) while

“creativity in structuring transactions and allocating liability should not be restricted... future rules and accompaniment guidance should be provided to facilitate the development of ‘sample contract forms’ for use by market participants. Standardized contracting can create certainty across the offsets market while reducing transaction and legal costs, especially on small transactions. Availability of well-understood and generally-standardized terms for sale of offsets can also help developers obtain funding for projects, bringing additional reductions to market.”

### *3.2.1.2 Protocols established by the Director*

The Director will only issue offsets in relation to projects that are developed in accordance with protocols that have been established by the Director. Protocols used under the previous offsets regulation may be considered by the Director for use under the proposed regulation. Protocols will be subject to regular review by the Director (see section 4.1).

This topic generated a number of common comments, as well as a range of specific suggestions for the Ministry to consider.

Several respondents provided comments on the scope of protocols to be included under the proposed regulation. A number of these respondents recommended that the Ministry “adopt/adapt a broad and diverse range of eligible, economically viable and potentially scalable offset protocols,” including those “in use or under consideration” in “existing compliance programs, such as California and Alberta,” with the goal of “building a full range of offset protocols available for compliance purposes in 2016 and beyond.”

Two respondents expressed concern about a potential lack of harmonization between protocols associated with the existing and proposed regulations. One of these respondents expressed concern about the lack of clarity with respect to “the extent of change [that] current protocols under the GGRTA might be subject to once the...review process is undertaken” since “a number of projects may be left in limbo should the Ministry not provide a reasonable pathway to meet compliance under the newly [established] Director’s protocols.” The other respondent cautioned that “the Ministry should avoid inadvertently creating a two-tier offset market in B.C....Significant or unreconciled regulatory modifications could result in B.C.’s market valuing ‘new’ offset projects more than ‘existing’ offset projects, under development, or eventually developed, using the existing ‘Director’s Protocols.’”

While one respondent noted support for “the empowerment of the Director to approve protocols,” two others recommended the establishment of a “knowledgeable [government-industry] offset expert group (e.g., Advisory Offset Group and/or Technical Committee)” that would “develop [and review] protocols and leverage experience from other jurisdictions.” One of these respondents noted that these tasks could include “clarifying the Director’s role in protocol development,” while the other suggested the expert group would facilitate “direct and transparent engagement with the Director, given this individual’s critical role under the forthcoming



regulation.” This respondent noted that “[experience] shows that [offset expert groups] can lend significant value to an offset program/protocol review process.”

Several respondents commented on the need for inclusion of a “detailed process” and “clear and reasonable timetables” for the development and adoption of protocols in the proposed regulation, as these would “[provide] for some level of certainty to project developers and purchasers.” One of the respondents recommended that the Ministry “ensure that there is a streamlined route, process and timelines for the Director to assess and adapt protocols for use in B.C.,” which was echoed by another respondent’s suggestion that the Ministry “strongly consider the introduction of provisions to allow the introduction of new, innovative offset project protocols in an accelerated manner at the Minister’s discretion...[since the] flexibility of offset generation will be increasingly critical to enabling industry to realize short-term emission reduction opportunities and contribute to the Government of British Columbia’s greenhouse gas targets over time.” This respondent requested additional clarity on “the proposed timelines for the release of revised protocols as well as any change in scope of opportunities or sector participation.”

A respondent also requested more clarity with respect to the definition of “regular review,” and whether it would be “a yearly process, ad hoc, [or other timeframe].”

Additional specific comments included:

- “Any administrative designation or protocol should be open to challenge by the public, with the possibility of a legal challenge where the response of the Director is not satisfactory”; and,
- “Clear, transparent, and predictable protocol review and revision processes, with oversight from the Director, are absolutely necessary to enable risk management and instil market confidence. These communications and processes should be open, participatory, and structured so that all interested parties are informed and engaged. Protocol revisions, as necessary, should only take effect on a schedule that does not upend project pipelines and undermine market confidence. A revised protocol should not be applicable to an existing project until the project’s next crediting period.”

### 3.2.1.3 Geographic limits

The proposed *Offsets Regulation* will require that offset projects originate in B.C. The GGIRCA includes enabling provisions that would support the recognition of offset projects from other jurisdictions in the case of future undersupply (see section 4.1).

Two respondents recommended that the Ministry recognize offsets from other jurisdictions. One respondent commented that “[harmonizing] the use of offsets can be a foundational move towards building cross-border climate cooperation, improving efficiencies and de-fragmenting regulatory approaches thereby allowing business to more easily and cost-effectively plan,

comply and invest across all jurisdictions within which they operate. Business needs access to these additional reduction opportunities to cost-effectively reduce emissions while maintaining competitiveness.” Another respondent noted that “[reductions] and removals that are real, verifiable, incremental and permanent have a global impact in tackling climate change... Given the environmental and socio-economic gains that can be achieved by refraining from geographic constraints... [we] strongly [encourage] B.C. to avoid including these geographic restrictions in its *Offsets Regulation*.”

Other respondents expressed interest in reviewing “data and future supply-demand analyses backing the assertion that B.C.-based supply should be ‘sufficient’ for the ‘foreseeable future’” once the regulations are completed. One respondent noted that “[compliance] entities need access to high supplies of reductions in order to cost-effectively meet compliance and gradually de-carbonize, while also maintaining competitiveness.”

Two respondents noted that the jurisdictional boundary of the province ends at the waterline at low tide and therefore disallows near-shore (seagrass) and off-shore (plankton) offset projects. One of the respondents suggested that these offsets represent “economic opportunities [for B.C.]” and that the province “would benefit most... [if the proposed regulation included] all options available.”

#### 3.2.1.4 Eligibility date, period and transition period

Once the *Act* and the proposed regulation come into force, offsets will be issued for removal or reduction projects that have a start date of no earlier than January 1, 2014 (see section 4.1).

Projects that meet the requirements of the *Emission Offsets Regulation* under the GGRTA where the proponent has contracted to sell all or some portion of the verified emission reductions to government (either to the Pacific Carbon Trust or Climate Investment Branch with CAS) will be recognized under the *Offsets Regulation*. These projects will only be grandfathered until the end of the validation period, provided that they continue to meet the protocol requirements and that there are no material changes to the project plan. These project proponents can apply for acceptance under the new proposed regulations for additional offset units, per the requirements of the applicable approved protocols, within one calendar year from the expiry of the contract (see section 4.1).

This topic generated a large number of comments, with most respondents inquiring about the status of offset projects that are underway or completed but are not currently under contract with the government. Many of the respondents sought additional clarification with respect to the terms and conditions associated with the grandfathering of offsets, and whether “previous projects that met the criteria for the existing offsets regulation and sold to the Government [either the Pacific Carbon Trust (PCT) or the CIB within CAS] would be eligible under the proposed regulation.”

Specific comments included:

- “[Grandfathering] should not pertain only to projects that have contracted with the PCT/CIB as it arbitrarily punishes projects either under development or [that have already been] developed under the existing offsets regulation – these projects need a clear and cost effective pathway to fungibility if they are not immediately grandfathered in...It should be confirmed/clarified that projects that met the criteria for the existing offsets regulation and sold to the Government in the past, but do not have a current contract to sell all or a portion of VERs to government, will be grandfathered in;
- “Only allowing projects that have either been ‘sold or contracted to sell’ to the PCT/CIB will exclude existing projects (either being developed, or those that have already been developed but not sold to PCT/CIB). Not establishing clear pathways towards fungibility for these projects under the new *Offsets Regulation* could be unnecessarily arbitrary and punitive, resulting in additional expense for developers and proponents”;
- “The language pertaining to grandfathering of previously approved projects is not completely clear. Specifically... ‘Projects under contract to the Climate Action Secretariat...would continue to generate eligible offset units’...Given the significant financial investment and previous efforts to gain project validation, it is imperative that all existing projects that conform to accepted protocols remain eligible going forward”;
- “There is serious concern over the objectivity of the test. A project either complies with the regulation (as validated and verified by qualified third parties) or it does not. The fact that it has, or has not, contracted with a particular third party is irrelevant...For example, a project may have decided to sell its credits on the voluntary market if it finds a better price there. It may have had an offer from the PCT but decided not to accept the terms. The [government] would now be penalizing a project for not accepting its (lower value) offer”; and,
- “The intention implies that only if there is an existing contract with the government for additional tonnes will projects be grandfathered in...Contract discussions [for an offset project that has sold emission reductions to the Government in the past] for future sales were put on hold until some things had settled (i.e. future [regulation]) and anticipated to continue in the fall. Under this scenario, will this project be grandfathered under the new *Offsets Regulation*?”

Another respondent recommended that “the Ministry, in consultation with experts and affected parties, revisit [the proposed start date for eligible projects] and consider merits linked to earlier project start dates. B.C.’s Carbon Neutral Government program, along with earlier provincial regulations, have encouraged growth of a strong provincial offsets market. Earlier policy and price signals have stimulated engagement and investments by asset owners, landholders and technology developers across the province. If B.C. adopts a start date of 1 January 2014, a

number of legitimate projects (at varying stages of development) will likely dismantle, and adversely impact market confidence and future access to project finance.”

Additional specific comments and questions included:

- “Some carbon markets and emission trading systems have restrictions on which vintages can be submitted against which compliance periods...[If] offsets are intended to have an indefinite shelf life...that needs to be explicitly stated”;
- “Clarity is required on the ability for compliance entities to use eligible offsets against multiple emission years. What vintage(s) of issued offsets can be transacted and ultimately used to meet compliance obligations to 2020? Will these decisions be driven or impacted by the forthcoming GGIRCA *Offsets Regulation*, or can they be addressed in subsequent implementation activities?”; and,
- “What will occur in the event that there is not a change in project activities, but an increase in the same activities that results in a 5% or more increase in emission reductions – does that trigger a new validation? All of the other aspects of the project remain the same and under the old EOR it appears that this increase would be addressed through the project report and verification.”

#### 3.2.1.5 Crediting period

The crediting period for non-sequestration projects will be 10 years, which could be renewed once for up to an additional 10 years. The crediting period for sequestration projects and the renewal requirements will be specified by the applicable protocol. Any individual crediting period should not exceed 25 years without renewal, and the total crediting period, including all renewals, should not exceed 100 years (see section 4.1).

A respondent noted that the existing offsets regulation, not the Forest Carbon Offset Protocol, determines the crediting period, and also commented that “the validation period for forest projects is a Director-issued order for validation period for forest carbon projects.”

#### 3.2.2 Real

An offset will represent one metric tonne of CO<sub>2</sub>e emissions, will be quantified using accurate methodologies, and will result in a net emissions reduction or removal that takes place at sources and sinks controlled by the project proponent (unless otherwise specified in the applicable protocol) (see section 4.2).

No specific responses were received on this topic.

##### 3.2.2.1 Quantification

Offset project quantification methodologies in approved protocols will be appropriate to the source or sink, be current at the time of quantification, consider local conditions as applicable, and account for uncertainty (see section 4.2).

No specific responses were received on this topic.

### 3.2.2.2 *Uncertainty and accuracy*

Offset project quantification methodologies should set standards for acceptable statistical accuracy that are appropriate for the offset project type and based on best-available science. When uncertainty is above the defined threshold, the “principle of conservativeness” should be applied (see section 4.2).

One respondent expressed support for the principle of conservativeness, but also noted that “any determination by the Director should be open to challenge. Where necessary, challenges should be able to go beyond the Director.”

### 3.2.2.3 *Leakage*

Offset protocols should include a leakage (activity-shifting, market or ecological) threshold for offset projects. If, following a quantitative and/or qualitative assessment of leakage risk, leakage is found to be above the threshold, it should be taken into account when quantifying net emission reductions (see section 4.2).

A respondent requested clarification on “ecological leakage” and noted that “only negative leakage is included in project calculations.” The respondent also asked (1) “How [will ecological leakage] be measured and reported (and in what units)?” and, (2) “Will positive leakage be permitted to be used towards an offset program?” and commented that it “may be difficult to quantify/measure/report to a reasonable level of assurance.”

The respondent also requested clarification with respect to what happens after a qualitative assessment determines whether the risk of system leakage is significant (in the instances when a quantitative assessment is not feasible).

### 3.2.3 *Baseline*

Offset protocols will contain procedures for selecting or establishing a baseline against which offset projects will be evaluated. The baseline should be set using a sector-or activity-specific performance standard and reflect conservative assumptions about what would have occurred in the absence of the offsets system. In the absence of these standards, a project-specific baseline could be set (see section 4.3).

Echoing an earlier comment, a respondent expressed support for the principle of conservativeness, and noted that “any determination by the Director should be open to challenge. Where necessary, challenges should be able to go beyond the Director.”

### 3.2.4 *Permanent*

Offset protocols will contain applicable approaches for assuring that reductions or removals are not reversible, as well as provisions that must be met if reductions or removals are reversed.

Mechanisms, e.g., contingency account of offsets, would be established to address reversals that are not the result of a project proponent’s intention or negligence (see section 4.4).

One respondent noted their support of the “credit issuance provisions of the GGIRCA and the reflection of these provisions that once issued, offsets will be irrevocable in the eyes of the buyer.”

Several respondents commented on the proposed contingency account as a means of addressing reversals, with some requesting additional clarification or providing additional suggestions with respect to a reserve or buffer pool option:

- The creation of a contingency account of offsets is a good approach and has worked well to promote extra liquidity in the Quebec market”;
- “The requirement to set up a contingency account is vague...and implies flexibility and subjectivity in determining whether a project needs to contribute extra offsets for contingency purposes...[A] mandatory buffer system should be implemented and all projects contribute to the pool based on an objective and formulaic approach”;
- “Will [the contingency account] be similarly structured to the VCS approach to risk buffer tonnes? Will a buffer tonne [only be] retired from the project that creates the reversal or will a program be set up similar to the VCS that draws on the larger pool of buffer tonnes to provide certainty to a purchaser?...What happens to these tonnes at the end of the project crediting period – will they be returned to the project proponent or will they remain in the account permanently?...Has the Ministry contemplate[d] using [its percentage] of verified offsets obtained through its Crown land ABSAs [Atmospheric Benefit Sharing Agreements] as a foundation for a provincial offset buffer, thereby potentially dealing with buyer/auditor/proponent liability issues in the case of reversals (provided the reversal was not intentional)?...We would not be in favour of the Ministry using their ABSA tonnes as a means of ‘financing’ their LNG Environmental Incentive Program”; and,
- “[We support] a risk-based approach to managing reversals and permanence issues. We recommend the use of a government-approved mechanism or assurance factor embedded in the relevant land-use protocol. Choosing a conservative factor enables more carbon reserves than a risk assessment would guarantee for which future reversals are reasonably accounted. This reserve, along with the requirements for project developers to provide replacement units following a reversal, should provide the credibility required to demonstrate compliance.”

One respondent also noted that this section of the intentions paper includes “multiple references to a reduction being removed,” and requested more information on the context for these removals: “As we understand, removals can be reversed but reductions are permanent. As [the

intentions paper has] a project proponent liability associated with this reversal...[it appears that the Ministry is] setting up a mechanism for where reductions are cancelled due to regulatory reasons (such as is the case with ARB in California). If this is the case we strongly advise that it is dealt with separately from permanence to avoid confusion.”

### 3.2.5 Verifiable

Offset project documentation will be reviewed by accredited third-party validation and verification bodies unless otherwise noted in an approved offset protocol. These bodies should be able to state that the project plan is free of material misstatement (see section 4.5).

No specific responses were received on this topic.

### 3.2.6 Transparency

Protocol and offset issuance information will be disclosed in such a way that the public is informed and offset system participants can make decisions while balancing the requirement to keep “protected information” confidential (see section 4.6).

One respondent noted that the “evaluation of offsets and the assignment of credits should be fully transparent, and all documentation should be open to public scrutiny.”

## 3.3 Offset creation process

The proposed regulation will require that project proponents follow a seven-step process in order to have a removal or reduction activity recognized as an offset: (1) project planning; (2) validation; (3) acceptance; (4) project implementation and reporting; (5) verification; (6) issuance; and (7) monitoring (see section 5 and Appendix 1).

One respondent noted support of the inclusion of the seven steps in the proposed regulation, “provided [they] are clear, consistent, transparent and well-communicated across all program participants.”

With respect to validation, one respondent recommended that “the validation of offsets should be a public process, open to public participation and with provision of funding for interveners, as with the B.C. Utilities Commission.”

Another respondent suggested that the wording in the Appendix associated with acceptance be modified to, “An unqualified opinion occurs when a ‘validator’ concludes that the assertions made in the project report give a fair and true view...” This respondent also noted that “fair and true is not an assurance level that exists...[and in addition represents] a deviation from the current EOR, which states fair and reasonable for both validation/verification,” and expressed concern about “the implications [of] changing (reducing) the level of assurance required...[The change] seems to imply that there is a softer approach to assurance that will be required, [which may not] be beneficial to [the] overall GHG program.”

One respondent expressed support for the “acceptance of the project and commencement of the eligible crediting period upon receipt of an unqualified validation opinion and due diligence by the...Director.”

A respondent questioned the regulatory requirement for an annual project report as part of project implementation and reporting, given that “some projects are of a size that it makes economic sense to verify several years together.”

With respect to monitoring, the respondent requested clarification on the “expected pathway...for potential reversals after the crediting period is completed.”

Additional specific comments included:

- “The government’s administration of offsets should be by an arm’s length agency with similar powers to the Auditor General’s office”; and,
- Any offsets or granting of credit for offsets should be open to challenge by the public in the courts, and the public should be explicitly recognized by law as having an interest in the validity of offsets.”

### 3.4 Provisions for third party assurance providers

The proposed regulation will include provisions for third-party validation and verification of information provided in the project plan and project reports. The regulation will also include provisions intended to ensure validation and verification processes involve independent and appropriately-qualified parties and individuals. The third-party validation and verification processes will be supplemented by risk-based audit and review by the Director (see section 6).

One respondent commended the Ministry’s intention to “make use of approved 3<sup>rd</sup> parties to ‘conduct quality control and quality assurance procedures’” and noted support of “B.C. pursuing the highest, most rigorous level of standards and requirements, ensuring a rigorous verification program...[This] provides certainty that only high-quality, compliance caliber offsets are generated, while avoiding overly cumbersome, duplicative and/or costly reviews.”

Another respondent requested greater clarification and detail with respect to the “risk-based audit,” and recommended that the “audit and review [be] conducted by qualified professionals with knowledge of Act/Regulations/Protocols, and [do] not take the form of a re-audit.” The respondent also asked for information on the “recourse/process” in the event that “the ‘risk-based’ audit is at odds with the findings of the third-party assurance provider.” One respondent commented that “B.C. may choose to audit the work being done by certified verifiers to ensure that verifications submitted to the program authority are based on established standards.

Completed verifications conducted by certified verifiers should not be subject to additional government audits unless there is clear indication of fraudulent actions on behalf of the project developer or verifier.”



Additional specific comments included:

- “Creating a stringent verification program gives B.C. the opportunity to assign primary responsibilities for oversight to third-party registries. B.C. regulatory authorities could then undertake more selective reviews or ‘spot checks’. Such a system could ensure the rigorous quality management necessary for compliance-grade offsets, while rationalizing resource allocation by B.C.”;
- “B.C.’s future regulation must build a program that requires ‘reasonable levels of assurance’ while utilizing International Standards for verification activities, such as ISO 14064-3 (for greenhouse gas verification) and ISO 14065 (for accreditation of verification bodies). These ISO standards are also utilized by potential linkage partners, including Alberta, California-Quebec and RGGI. B.C. is well-positioned to support, if not strengthen, verification bodies accredited under an International Accreditation Forum (IAF), including the Standards Council of Canada (SCC) and American National Standards Institute (ANSI)”;
- “Across several North American compliance offset programs, we have seen material problems and market impacts associated with vague and/or inconsistent language in regulation and protocols”;
- “We are concerned to see intentions to implement ‘Limitations on Applicant Assurance Bodies.’ If adopted, these limitations could pave the way to capacity challenges related to validation activities and efficient execution. Only a handful of legitimate validation bodies (VBs) currently exist, and B.C. is the only compliance program that requires separate validation. Placing limitations on applicant assurance bodies becomes problematic due to scarcity of eligible VBs or higher cost concerns – either scenario leads to significant increases in validation costs for project proponents. To ensure efficiency and decrease costs for project proponents, we recommend that VBs be allowed to validate and verify the same project, while recognizing that certain limitations (e.g. number of verifications) might be necessary if allowing this approach”; and,
- “B.C. may choose to see verifiers undergo protocol-specific training and certification. Based on experience in other programs, this approach would help ensure verifier competency for all protocols. If B.C. were to require verifier training, consideration should be given to a training program that is efficient and not cost-prohibitive for verification bodies.”

### 3.5 Other comments

Many respondents expressed their “appreciation” for the opportunity to provide feedback and input. Two respondents requested more detail on “the exact wording/intention of the regulation”

and on “the market design features dictating the use and application of offsets within this compliance system.”

A number of respondents indicated general support of the development of the *Offsets Regulation* and of the use of offsets as a compliance mechanism. Specific comments included:

- “The inclusion of offsets...[is] an essential flexible compliance mechanism of any functional carbon pricing program”;
- “[Emission] reductions [associated] with offset programs...[have] proven to offer cost-effective solutions for industry to drive greenhouse gas emission reductions...[This] discussion paper represents meaningful progress towards a strong, principle-based policy construct for the purposes of mitigating and managing these emissions”;
- “We believe that the Intentions Paper has done a good job [of] balancing the need to ensure the environmental integrity of the system with the need to increase liquidity and lower transaction cost... We believe that the Intentions Paper provides a good first step towards establishment of a robust offsets regime for B.C.”;
- “[Our organization] applauds the B.C. Government’s renewed commitment to building an effective, robust – and now streamlined – compliance offsets regulatory framework, while leveraging existing program capacities, tools and learnings...[and] strongly supports the Ministry’s intention to establish a single standard to inform the development of offsets in B.C.. If well-designed and executed, a single standard and more streamlined approach will result in improved efficiencies, lower costs, and hopefully high volumes of eligible reductions, with associated co-benefits, across the system”;
- “Access to offsets allow[s] regulated industries the ability to gradually transition while meeting compliance obligations and realizing new low-carbon strategies, technologies and processes that work best for their operations, human resource capacity/skills, supply chains, consumers, and, ultimately, the broader economy.”

Other respondents expressed a contrasting view, with specific comments including:

- “[Offsets should be] supplemental to actions by emitters to reduce emissions at their own facilities...” [B.C. should establish] a conservative limit on the use of offsets to comply with the GGIRCA and mechanisms to ensure that all reductions come from actions within the regulated sector”;
- “[Offsets] have not been established as effective instruments for reliably reducing GHGs, while on the other hand, they are inherently complex and subject to many assumptions and ‘counter-factual’ suppositions that can easily give rise to error, leading to ‘paper’ credits being assigned where actual, physical reduction of GHGs does not occur...[If offsets are used, they] should be a last resort for GHG reductions...[and] should be

allowed to account for no more than 10% of required GHG reductions in any given situation.”

A number of respondents commented on the fungibility of GGIRCA offsets and on potentially linking B.C.’s offsets program with programs in other jurisdictions. Specific comments included:

- “GGIRCA should have its own separate offsets system with offsets not useable in other regulations. Emission units/offsets should not be fungible between regulations, specifically the Low Carbon Fuel Requirements Regulation, which contains a volumetric renewable fuel standard and a carbon intensity-based low carbon fuel standard. Treating emission reductions separately under these two regulations will prevent unnecessary complexity, preserve integrity of the systems, and not undermine the market signal inherent in other carbon reduction regulations”;
- “Offsets are and will continue to be critical to compliance with provincial, national and international greenhouse gas emissions commitments. [We support] linking the provincial carbon offsets systems inter-jurisdictionally. This linking will allow for the Canadian oil and gas industry to continue to comply with greenhouse gas regulations and to contribute further to clean investments and innovation around the world...In order to achieve this linkage, [we] support a robust and credible offsets system, recognizing that maintaining system credibility is critical to gaining access to other carbon markets. Ensuring minimal buyer liability and allowing for streamlined but thorough verification, the Government of British Columbia can maintain market credibility by continuing to ensure that offsets are real, additional, permanent, verifiable, quantifiable, and enforceable”;
- “A flexible offset market-based system, capable of effectively linking to other markets and jurisdictions, will bring dividends to B.C. by achieving the province’s goals to reduce GHG emissions at least cost, while growing its economy and growing jobs. Over time, once the new offset program is more established, the province should pursue harmonization or alignment with neighbouring jurisdictions including Alberta, Quebec, and California, starting with offset fungibility; this could ultimately lead the province to join more global markets including the EU ETS, China’s new emissions trading program, and others.”

Additional specific comments included:

- “[The] evaluation of offsets should be science based, and scientific assessment should take precedence over any other standard of evaluation (such as ISO standards)”;
- “[We] would request further clarity and engagement on the treatment of existing and potential offset generating projects. We would also request engagement and further dialogue on any analysis the Government of British Columbia has conducted on the impact of pricing offsets under the new regulations”;

- “[We] support the need to actively engage the sectors not covered by the GGIRCA to come forward with innovative projects that could qualify as offsets. In this regard, it will be important for [other] industrial sectors to know well in advance if the government intends to extend the provisions of the GGIRCA to [other sectors]”;
- “B.C.’s climate policies, including its offset program, should (1) be clear and simple to administer, (2) be integrated, seeking equivalency and linkages with other jurisdictions, (3) [strive] to maintain or improve competitiveness with respect to B.C.’s major trading partners, such as adjacent provinces and Pacific Rim”;
- “B.C.’s future offsets program implementation efforts [should]: (1) provide clear and consistent offset rules, guidance, processes and eligibility requirements; (2) encourage efficiencies and cost-efficacy across all aspects of design and implementation, including the minimization of administrative burdens and transaction costs; (3) maintain environmental integrity while maximizing the supply of eligible offsets (avoid artificial constraints, be they geographic, quantitative, or qualitative); (4) leverage best practices and tools across existing compliance offset systems, including the *Emission Offsets Regulation* under B.C.’s *Greenhouse Gas Reduction Targets Act*; (5) enable alignment with other provincial/regional offset systems to facilitate future linkage, thereby maximizing efficiencies while driving further reductions at lower cost; (6) harmonize regulations, and avoid inadvertently creating a two-tier offset market”;
- “Great care should be taken to not create a 2 tier offset market within B.C. with offsets from the old [regulation] and the new [regulation] being valued by the market differently. Long term monitoring and reporting requirements for sequestration projects and project proponent liability provisions could both do this. The old [regulation] and new [regulation] should be harmonized accordingly”;
- “Offset program integrity is underpinned by robust, accurate and transparent data. A core component to any emissions trading or offsets program is the credible and accurate monitoring, reporting and verification (MRV) of emissions and project data. The sound transparency and consistency of this data, along with clear enforcement rules and provisions, underpins the overall integrity of the program, thus impacting program confidence, market participation levels, and linkage opportunities. Protocol standardization and fixed validation periods can heighten certainty, improve efficiencies, and avoid ‘additionality’ pitfalls”;
- “As abatement costs differ across sectors and regions, access to broader pools of reductions will drive cooperation, clean project innovation and productivity, and reduce overall costs to tackling climate for industry and consumers. Creating markets at scale with access to broad pools of cost-efficient options to reduce emissions is an advantage, especially for jurisdictions with increasing industrial emission profile trajectories and

high levels of ambition (like B.C.). Linked markets with one-way or mutual recognition of tradable units for compliance lead to price convergence and efficiency gains, enabling ‘local’ companies to capture a wider range of lower-cost mitigation opportunities, while spreading ‘clean wealth’ and encouraging cooperation with other jurisdictions”;

- “Broad access to offsets will support and incent private sector engagement and innovation... Years of industry experience across multiple programs and regions, including B.C., have demonstrated that properly designed offset systems drive clean innovation, jobs and entrepreneurialism by providing a clear price signal upon which to invest”;
- “Given the importance of sequestration projects and Crown Land considerations (volumetric, co-benefits, etc.), more clarity, direction, and thoughtful consultations with practitioners will be required as GGIRCA’s Regulation is drafted and finalized. How will B.C. Government ownership issues under GGIRCA *Offsets Regulation* be addressed, and what options are currently under consideration? These issues must be communicated, and potential impact assessments must be conducted during the rule-making process. While navigating these Crown Land options, [we] strongly [encourage] the Ministry and CAS to be mindful about which arrangements might support or debilitate offset market development and private investments”;
- “B.C. is extremely well-positioned to capitalize on, while becoming a global leader in, the space of Program of Activities (POAs) approaches and aggregation (i.e., aggregating ‘small but similar’ offset project types). Soundly-designed and well-executed approaches to POAs and aggregation allow project developers to maximize reduction opportunities (and co-benefits) across numerous (non-covered) small projects that might otherwise fall below the investment threshold (if forced to develop each independently)”;
- “The responsibility to achieve offsets and the liability for any failure of such offsets for any reason should by law continue to rest ultimately with the emitter. While providers of offsets should have responsibility and liability for any offsets they provide, this should not remove the ultimate liability of the emitter. There should be no situation in which the public assumes risk in regard to offsets that fail to achieve actual GHG reductions”;
- and,  
• There should be a robust mechanism to ensure that a responsible party would reliably be able to make good any deficiency where an offset fails to achieve actual GHG reductions, with no time limitation on when such deficiency occurred or was discovered, and no matter the magnitude of the deficiency”.

## 4 Compliance Framework Intentions Paper: Summary of Public Comments

### 4.1 Compliance obligations

#### 4.1.1 Emissions performance

The proposed regulations will require that regulated operations comply with the GHG emissions intensity benchmark of 0.16 CO<sub>2</sub>e tonnes for each tonne of liquefied natural gas produced (t CO<sub>2</sub>e/t LNG). The compliance obligation would begin when the operation starts producing LNG (see Compliance Framework – Policy Intentions Paper, section 3.1).

One respondent commented that “[the] LNG carbon intensity target is very aggressive and in order to meet it LNG facilities will have to invest in best in class technology as well as purchase carbon offsets or technology fund credits for the difference between their actual carbon intensity and the...target. This could lead to a significant additional financial burden on the projects, particularly in the start-up and early operations phase of the project when the facility is not yet running at its design capacity.”

#### 4.1.2 Evidence of compliance

The proposed regulations will specify that regulated operations must submit a verified compliance report for the previous calendar year by May 31<sup>st</sup>. The compliance report requirements will be set out in the regulations, and will likely include the compliance period, LNG production, the amount of GHGs attributable to a regulated operation, the amount of GHGs captured and stored, the amount of GHG emissions that exceeds the limit for the operation, the number of compliance units surrendered to meet the compliance obligation (if applicable), and information required to determine the eligibility of an operation for the LNG Environmental Incentive Program (see section 3.2).

A number of respondents sought clarification on the compliance requirements. For example, one respondent requested more information on “[the] extent to which CO<sub>2</sub> venting must be reported...In order to fully comply with the proposed requirements, it would be helpful if the B.C. MOE provided the list of facilities that is to be included as part of this requirement.”

In addition, a respondent requested clarification with respect to the LNG Environmental Incentive Program since “[the] method by which they fund this account [capital incentive, offset pool established by the province, etc.] could have significant impacts on the offset market.” Another respondent questioned the legal status of the incentive program and noted that it is unclear “how this program would ‘incentivize investment in advanced technology,’ induce GHG reductions or otherwise serve the public good.”

Additional comments included:

- “The regulations require additional information as part of the compliance reporting that includes the total emissions of carbon dioxide removed from transmission of pipeline quality natural gas by an LNG operation for a facility...Although we agree in principal with this information request, consideration should be given to the timing... [The] information obtained [by the reporting deadline of May 31<sup>st</sup>] would be from a third party source and would be prior to verification. Should verification of the third party CO<sub>2</sub> venting value result in the need for a change, a system wide re-report would be required...This would make for an inefficient process”;
- “[Concerns] regarding the quality of natural gas obtained from processing plants are not addressed through the inclusion of venting CO<sub>2</sub> values upstream...[Large] LNG plants that focus on export could require a lower CO<sub>2</sub> content within their natural gas stream, which would then push the natural gas with a higher CO<sub>2</sub> content in B.C.’s distribution system, impacting the greenhouse gas emissions of our domestic natural gas system. To avoid this, we propose that companies be required to provide MOE with a gas composition analysis of the system, in addition to a summary of CO<sub>2</sub> vented. We believe that this would provide for a more transparent system within the province”;
- “Carbon capture and storage (CCS) is an unproven way to reduce GHG emissions, and it should be evaluated and open to challenge.”

#### 4.1.3 Meeting compliance

Under the GGIRCA, regulated operations can meet their compliance obligation by using compliance units. There are three types of compliance units: (1) offsets, (2) funded units, and (3) earned credits. It is proposed that a B.C. Carbon Registry be established to enable the issuance, transfer and retirement of compliance units. A regulated operator may hold two types of account in the registry: a holding account and a compliance account (see section 3.3).

A respondent suggested that “matters pertaining to earned credits acquisition or reduction may be best addressed through the offset protocol and should not be included in the compliance framework.” Another respondent commented that “alternative compliance mechanisms will necessarily create complexities and increased possibilities that offsets or credits granted will not correspond to GHG reductions.” The respondent expressed opposition to funded units “where their cost is less than the current amount of B.C.’s carbon tax...Funded units would simply make it easier and cheaper for emitters to continue emitting”; and to the granting of earned credits, since “[the] purpose and function of the regulations should be to increase pressure on emitters to reduce their emissions, not to create easy avenues of compliance. The granting of earned credits would tend to create the sense that emissions up to the prescribed baseline are an entitlement and not a problem. This does not recognize the urgency of the need to reduce GHG emissions in the face of climate change.”

## 4.2 Administrative penalties

### 4.2.1 Administrative penalty framework under GGIRCA

The proposed regulations will include two types of administrative penalties that can be levied against parties in instances of non-compliance: automatic administrative penalties and discretionary administrative penalties (see section 4.1).

One respondent expressed concern about automatic administrative penalties, specifically (1) “the inability of regulated entities to discuss perceived failures to comply with statutory and regulatory obligations with the Ministry before the imposition of penalties,” and (2) “adding a burdensome appeals process to account for force majeure or technical issues with Government infrastructure.” The respondent also requested clarification “on whether or not these penalties would be issued should offsets purchased be invalidated for any reason.”

#### 4.2.1.1 Determination of non-compliance

The proposed regulations will specify how non-compliance will be determined/the contravention(s) of compliance requirements that warrant an administrative penalty (see section 4.2.i).

No specific responses were received on this topic.

#### 4.2.1.2 Calculating penalties

The proposed regulations will include formulas for calculating administrative penalties and establish a maximum penalty amount of \$50,000 (see section 4.2.ii).

No specific responses were received on this topic.

#### 4.2.1.3 Notice of Intent

The Director will issue a Notice of Intent to the non-compliant party prior to issuing an administrative penalty notice (see section 4.2.iii).

No specific responses were received on this topic.

#### 4.2.1.4 Opportunity to Be Heard (OTBH)

The non-compliant party will have 30 days to request an OTBH once the Notice of Intent has been served (see section 4.2.iv).

No specific responses were received on this topic.

#### 4.2.1.5 Administrative Penalty Notice (Final Determination)

Upon determining that an administrative penalty will be levied, the Director will send an Administrative Penalty Notice to the non-compliant party (see section 4.2.v).

No specific responses were received on this topic.



#### 4.2.1.6 Appeal

Non-compliant parties that have been issued a discretionary administrative penalty will have the opportunity to appeal the decision to the Environmental Appeal Board within 30 days of the delivery of the Administrative Penalty Notice (see section 4.2.vi).

No specific responses were received on this topic.

#### 4.3 Payment

Payment for administrative penalties will be required to be provided within 30 days of (a) reporting non-compliance, (b) being served with an administrative penalty, or, in the case of an appeal, (c) the date the Environmental Appeal Board confirms or adjusts the penalty (see section 4.2.vii).

No specific responses were received on this topic.

#### 4.4 Public reporting

Violations of legislative requirements will be publicly reported in a quarterly environment enforcement summary (see section 4.3).

No specific responses were received on this topic.

#### 4.5 Other comments

Additional specific comments on the proposed regulations pertaining to the compliance framework included:

- “Upstream gas emissions from the production of gas should be included in the compliance obligation of LNG operations because such emissions are caused or induced by the demand for feedstock by the LNG operations”;
- “[Some] smaller LNG facilities...are designed for peak shaving with minor LNG sales to the transportation and mining sectors. The rules for separating emissions for peak shaving operations versus LNG sales should be considered...For example, there are no provisions in the proposed intention paper to allow for the percentage allocation of fugitive emissions for LNG sold compared to the percentage allocation for LNG used for peak shaving”;
- “Any change in scope of the proposed regulatory changes should be well-informed with upstream oil and gas industry input. We would request that more detail be provided as to how this will impact other industries and how the proposed changes will interact with existing reporting, tax and compliance regulations”;

- “B.C.’s climate policies, including its compliance framework, [should] be clear and simple to administer, as well as be designed for equitable application across small and large LNG operators”;
- “B.C. should support the development of the advanced biofuels sector through use of funds collected through the GGIRCA flexibility mechanisms (technology fund)...As technologies to convert lower value biomass fractions into transportation fuels continue to develop towards commercial scale, opportunities to establish in-province production of low carbon advanced biofuels should be a prescribed use of GGIRCA funds”;
- “A future, higher price fund [sic] unit should be communicated to incentivize early action. Similar to the approach used in the provincial carbon tax, future carbon price changes should be communicated. An increasing fund [sic] unit price, and linked cost of compliance (should these fund [sic] units be purchased), will help ensure that real emissions reductions are pursued in the forward years of the regulation. In addition, it would be appropriate to align the unit fund [sic] price with the established carbon tax rate (\$30/tonne) to harmonize the price signal on carbon”; and,
- [Our organization] strongly opposes any reduction of B.C.’s carbon tax for parties that are subject to the application of GHG reduction regulations, including offsets...The carbon tax should be strengthened and applied more broadly.”

## 5 Appendix: Acronyms and Abbreviations

<b>Acronym or Abbreviation</b>	<b>Definition</b>
ANSI	American National Standards Institute
API	American Petroleum Institute
B.C.	British Columbia
CAS	Climate Action Secretariat
CIB	Climate Investment Branch
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
EOR	<i>Emission Offsets Regulation</i>
FCOP	Forest Carbon Offset Protocol
GHG	Greenhouse gas
GGIRCA	<i>Greenhouse Gas Industrial Reporting and Control Act</i>
GGRTA	<i>Greenhouse Gas Reductions Target Act</i>
GWP	Global Warming Potential
IAF	International Accreditation Forum
LFO	Linear facilities operation
LNG	Liquefied natural gas
MOE	Ministry of Environment
OGC	B.C. Oil and Gas Commission
PCT	Pacific Carbon Trust
SWIM	Single Window Information Manager
tCO <sub>2</sub> e	Tonnes of carbon dioxide equivalent
U.S. EPA	United States Environmental Protection Agency
VCS	Verified Carbon Standard
VER	Verified Emission Reduction
WCI	Western Climate Initiative