



# **GREENHOUSE GAS (GHG) REPORTING REGULATION**

## **INTENTIONS PAPER**

### **SUMMARY OF PUBLIC COMMENTS**

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## Greenhouse Gas (GHG) Reporting Regulation – Intentions Paper Summary of Public Comments

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# Greenhouse Gas (GHG) Reporting Regulation – Intentions Paper

## Summary of Public Comments

### 1. Introduction

The British Columbia Ministry of Environment (the ministry) intends to introduce a Mandatory Reporting of Greenhouse Gas Emissions Regulation (GHG Reporting Regulation) to support fulfillment of the *Greenhouse Gas Reduction (Cap and Trade) Act*, which received Royal Assent on May 29, 2008. It is anticipated that the regulation will come into effect in early 2009.

This report provides a summary of stakeholder comments received as part of the consultation process for development of the Greenhouse Gas (GHG) Reporting Regulation.

#### 1.1 Background to the consultation process

An intentions paper was posted for public review and comment on the ministry's website October through November of 2008 (see: [www.env.gov.bc.ca/epd/codes/ggrcta/reporting-reg.htm](http://www.env.gov.bc.ca/epd/codes/ggrcta/reporting-reg.htm)). The intentions paper provided background information regarding greenhouse gas emissions reporting and the Western Climate Initiative, a summary of related government goals and objectives, a discussion of the ministry's intentions for development of the regulation to accompany the new Act and an outline of guidance for preparing project information, as well as the process for providing comment to the ministry. A separate response form for providing comments or suggestions to the ministry was also posted on the website.

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

This document has been prepared for the Ministry of Environment by C. Rankin & Associates, contracted by the ministry to independently receive, compile and review comment on the ministry's intentions for development of the regulation. The summary does not reflect the ministry's position on any issue. It provides a synopsis of the responses that are being considered by the ministry in preparing the regulations – without specific attribution, except to the extent required to provide context for the comments. This summary of public comment does not include all detailed comments, rather it attempts to capture the tenor and content of comments through summarization and specific excerpts from representative submissions.

The complete set of responses received through the consultation process has been compiled and passed to the ministry for detailed review and consideration. All comments and references submitted through this process, through independent submissions and through direct consultations with stakeholders, will be reviewed and carefully considered by the ministry in developing the regulations.

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

### 1.3 Description of responses received

Over 34 responses to the intentions paper were received (by e-mail, fax and attached file), and have been reviewed for this summary of public comments. More than half of the respondents identified themselves as part of the private sector and/or project developers. Other respondents included representatives of government agencies, First Nations and environmental and community groups. Many of the responses included substantive comments or submissions to supplement responses to discussion topics set out in the intentions paper.

## Ministry Intentions

The objectives for the proposed regulation (see intentions paper section 2) are to facilitate recognition of greenhouse gas emission reduction in a manner that: ensures integrity and maintains credibility, consistency and transparency; is administratively simple and minimizes uncertainty; is consistent with other climate action programs adopted by the province; builds on experience gained from other systems; and maximizes scope, timeliness and cost effectiveness.

The purpose of the GHG Reporting Regulation (see intentions paper section 2) is to set out requirements for the reporting of greenhouse gas emissions to the ministry. It will also support the implementation of a provincial and/or regional cap and trade system (such as that being developed under the Western Climate Initiative).

## 1. Design Principles for Emissions Reporting

The ministry is using a number of 'design principles' in developing the GHG Reporting Regulation (see intentions paper section 3.4), including: compatibility; prioritization; prescribed quantification approach; risk-based third party verification; and access to information.

These principles are reflected in the ministry's intentions and proposed provisions of the regulation – addressed in detail in subsequent sections of the intentions paper.

*Response Form Question 1.1: Do you have any comments regarding the design principles, suggestions for the ministry in how they should be applied or recommendations for additional principles that would be important for the ministry to consider in drafting the GHG Reporting Regulation?*

Most respondents who commented on this question expressed support for the principles "in general" – and in particular encouraged the ministry to harmonize any GHG reporting requirements with other reporting programs, such as federal (Environment Canada and Statistics Canada) and the process used in other Western Climate Initiative (WCI) jurisdictions. A number of respondents noted that there is a need for "consistent, transparent and equitable reporting" of emissions for purposes of trading and compliance (under WCI), as well as for documentation to meet provincial reporting requirements. Several respondents also commented that "it is difficult to comment on the design principles without more detail" and recommended "further consultation once...details are available".

Comments related to access to information included: “access should not be given to proprietary information, nor should it be required for reporting – the level of detail should be limited to the source-category level” and “how public [will] the information be – can the results be accountable enough [to ensure] that the public does not need to worry about a future government ‘cooking the books?’”.

Suggested additional principles or recommendations for consideration by the ministry included:

- “ ‘Administrative simplicity’ ...should be considered in addition [to the listed principles]”;
- “Supporting regulations...must be developed based on principles of rigor, completeness, fairness and sound scientific, engineering and economic data”;
- “We would support the addition of a ‘completeness’ principle to ensure [that] GHG accounting from facilities covers all emission sources and GHGs”;
- “Implementing a principle of completeness with the possibility of using simplified emission estimates for smaller sources...improves consistency”; and
- “Every effort should be made to ensure that the reporting system is workable, cost-efficient, transparent, targeted to relevant emission sources, and that [it] does not overlap with other regulations”.

Additional specific comments included:

- “The level of detailed data to be reported and the requirement for annual verification...will impose significant administrative and process costs”;
- “We agree with the focus of the reporting requirements on areas where there is substantial data uncertainty”;
- “ ‘Risk-based third party verification’ should be defined more clearly”;
- “[The regulation] should specifically identify the World Business Council on Sustainable Development Cement CO2 protocol...as the required methodology for...BC cement manufacturing facilities”;
- “I strongly support the Minister’s initiatives in regulating reporting requirements on GHG emissions...I do not support voluntary reporting...voluntary measures have a long history of failure when it comes to environmental matters in Canada”; and
- “We support the goal of ‘prioritization’ on large emitters but would expand on this to recommend that the focus also be on the large sources of emissions”.

## **2. Definitions**

The ministry intends to develop a full set of definitions for the regulation to specify application and interpretation of the regulation. These would build on Western Climate Initiative and Environment Canada terms and definitions, supplemented with specified definitions as required for B.C. circumstances or regulatory needs (see intentions paper section 4 and Appendix B).

**Response Form Question 2.1: Do you have any comments or suggestions regarding definitions for the proposed regulation?**

Respondents most commonly recommended that the ministry adopt definitions that are consistent with national and international policies and legislation (such as those of the *Canadian Environmental Protection Act* and Environment Canada reporting requirements). Several respondents noted that there is “some disagreement between definitions set out by Environment Canada and those of the Western Climate Initiative (WCI)” – particularly with respect to aggregation or disaggregation of some categories of emissions categories (such as the disaggregation of venting and flaring and other “fugitive emissions” from the larger “industrial processes” emissions category). Respondents commenting on this subject expressed concern, for example, that use of WCI definitions would be “out of step with [Intergovernmental Panel on Climate Change] IPCC guidelines for reporting... [and] would also create greater uncertainty in emissions inventories overall”. Another respondent commented that “there is high uncertainty regarding estimation of the fugitive emissions...the methodology does not take into account the high variability between coal mines, the individual coal seams or the status of previous mining...[and consequently] the estimated emissions are too variable for reporting within a cap and trade framework where comparison and tracking of an individual facility's progress towards GHG targets is essential”.

Several respondents requested or recommended clarification of the definition of “facility” – with specific comments including:

- “[We] need clear definitions of what constitutes a facility (e.g., can two boilers with separate stacks but within the same building be considered one or two facilities?)”;
- “[We] recommend the adoption of Environment Canada’s facilities definitions and specifically that for pipelines”;
- “A definition of [a ‘Clean and Renewable Energy Facility’] needs to be added to the proposed regulation, and [any reporting requirements from such facilities]...needs to be clarified [in the regulation]”;
- “The Climate Registry...has further refined the definition of ‘facility’ as it pertains to a pipeline system: ‘for the purposes of reporting, each pipeline, pipeline system, or electricity [transport and distribution] system should be treated as a single facility – if a pipeline or system crosses a state or provincial boundary, you should subdivide the system into two separate facilities along the state/provincial boundary if it is possible to determine emissions separately for the two facilities thus defined’ ”;
- “[The] definition of facility could be better refined to reflect the facilities of the oil and gas sector”;
- “[We] recommend that the Ministry clarify the applicability of the facility definition to diesel generating stations that consist of mobile (not stationary) generating units”;
- “We recommend expanding the definition of facility so that it is expanded from ‘under common operations control’ to ‘under common operational or corporate control’ ”; and
- “Definitions for existing and new facilities should be provided with a threshold for what might be considered a ‘significant retrofit’ so that this can be distinguished from a new



facility – this might allow for some flexibility when developing the cap and trade portions of the regulation and prevent issues of grandfathering of existing facilities”.

### 3. Reporting Requirements

See intentions paper sections 5.1 to 5.5.

*Response Form Question 3.1: Do you have any comments regarding the greenhouse gases that would be subject to reporting under the proposed regulation?*

In common with responses to other questions, respondents emphasized the importance of compatible and consistent reporting standards and supported the ministry’s “stated intent to align reporting formats and submissions with those required by Environment Canada and other WCI jurisdictions”. One respondent, for example, suggested that “the Environment Canada approach to the reporting of these [high global warming potential] gases be adopted – namely, that emissions reporting be limited to industrial process use and industrial product use of these gases”. The respondent felt that “reporters are very likely to rely on default published emission factors when reporting these sources and management of emissions from these sources are arguably better handled through policies other than cap and trade”. Another respondent commented that “emissions should be reported on a per gas basis so that the applied global warming potential can be determined and to promote more transparent reporting”.

*Response Form Question 3.2: Do you have any comments regarding the fuels and inputs to be included in reporting requirements?*

The topic that generated the most responses under this question was the treatment of CO<sub>2</sub> emissions from biomass combustion. Most respondents who commented on this topic expressed support for treating CO<sub>2</sub> emissions from biomass combustion as carbon-neutral noting, for example, that “within the BC Bioenergy Strategy, biomass production has been identified as integral to the transition to cleaner fuel sources” and that “it is extremely important for long-term viability of BC Biomass Electricity Projects to deem their CO<sub>2</sub> emissions as carbon-neutral”. These respondents also commonly expressed a concern that “the proposed biomass reporting requirement would bring under regulation a number of small forest products companies whose reporting of their biomass CO<sub>2</sub> emissions will not result in any environmental change” and “inclusion of biomass combustion within the reporting requirements sends a mixed message to [these] facilities [and others who may be] considering switching fuel sources or participating in biomass energy production” and recommended that “biomass (wood) fuels should be exempt from reporting requirements”. One respondent noted that “due to the ongoing development of GHG accounting methodology and scientific consensus, biomass might be considered a GHG source... [and that such] changes to the methodology could prove detrimental to the feasibility of biomass energy projects”.

Other respondents expressed a contrasting view with respect to reporting requirements for biomass combustion. One respondent, for example, commented that “we disagree with the special consideration provided for non- CO<sub>2</sub> biomass – exclusions based on these emissions should

not be allowed in the regulations – burning biomass is not a zero-emission activity in the time-frame of a 2020 target, because it will take many decades (at least) for replanted forests to recapture the same amount of carbon that was released to the atmosphere from the harvest biomass” and “urge[d] the ministry to continue assessing how to best treat the life-cycle emissions from bio-energy opportunities”.

Other comments in response to this question included:

- “[We] recommend establishing emission factors for all fuel sources, and that these should be equivalent to the factors in the carbon tax regulation – the use of emission factors significantly simplifies the quantification and verification processes required by the facility”;
- “[We] are not clear on how the fuels data will be utilized for GHG reporting of a large industrial petroleum refinery – we are assuming that this information will not be reported in this particular industrial segment”;
- “[We would require or request] an exemption on fuels that are used as process reagents, such as kerosene and diesel, on the basis that these substances are not combusted during the process and therefore do not emit GHGs”;
- “[We] recommend that reporting regulation also include clear instructions [similar to the declaration of biomass combustion as ‘carbon neutral’] with respect to reporting and exempting the (verifiable) biogenic components in mixed-composition fuels”;
- “If third-party verification is required, reporting of activity data may not be necessary and may be determined to be overly burdensome...third-party verification is often promoted because it requires less business-confidential data to be reported to government”;
- “We encourage the ministry to set out an explicit performance standard in terms of the percentage of total emissions within capped sectors that the reporting requirements are intended to capture – the ministry should also provide itself with the flexibility to adjust these thresholds on an ongoing basis if the thresholds used are too high to achieve this performance standard at any point in the future – we support the WCI’s stated goal of attempting to capture 90% of emissions, and suggest that this be used as the performance standard for the regulation”; and
- “[While we agree with] the drafted list...the process [appears to be] open to inclusion of additional fuels – a complete listing must be developed that explicitly shows all fuels included for reporting in BC”.

***Response Form Question 3.3: Do you have any comments regarding the level of emissions requiring reporting?***

Many respondents who commented on this question felt that “the emissions thresholds for reporting have been set too low at 10 000 tonnes of CO<sub>2</sub>e per annum...[as] this would result in getting too many companies required to report, significantly increasing the administrative burden [of reporting]”. Respondents also commented that the proposed threshold of 3 000 tonnes of CO<sub>2</sub>e for upstream oil and gas facilities was “inappropriate” or “unfair” noting, for example, that the requirement would “add a significant reporting burden” while “we do not understand the value to the government of having facility-level emissions estimates for these small facilities”. One respondent provided an estimate that “a 10 000 tonne threshold [would]

provide more than 75% coverage of the province's greenhouse gas emissions from our [upstream oil and gas facilities] sector...[while] a 3 000 tonne threshold would increase that coverage [only] slightly to about 85% [but] would require approximately four times more facilities to report".

Respondents differed in their recommendations for appropriate reporting thresholds. Most commonly, respondents recommended consistency with the "25 000 tonne threshold under the proposed WCI cap and trade system" with one respondent further noting that "this is significantly lower than the threshold set in any other Canadian jurisdiction, and would provide a strong benchmark from which future regulations could be developed". One respondent noted that "the current threshold for mandatory reporting of emissions to Environment Canada is 100 000 tonnes of CO<sub>2</sub>e per year... [we] suggest that the [ministry] either raise the mandatory reporting threshold or at the very least consider a much more simplified reporting process for facilities emitting less than 25 000 tonnes of CO<sub>2</sub>e per year". Another recommended that "the reporting and compliance thresholds should be set at the same value of 50 000 tonnes of CO<sub>2</sub>e without the inclusion of CO<sub>2</sub> from biomass fuel which is internationally recognized as carbon neutral".

A number of respondents noted the potential for an "unnecessary administrative burden" of reporting and verification for smaller facilities that may or may not be covered under the proposed WCI cap and trade system and expressed a willingness "to explore less onerous methods of estimating emissions from these smaller facilities [with the ministry]". One respondent, for example, commented that "considerably more progress [could] be made in reducing emissions by assisting businesses to maximize energy efficiency and to adopt cleaner fuel sources and/or technologies [than by mandating inclusion of 'small facilities' in mandatory reporting requirements]".

***Response Form Question 3.4: Do you have any comments regarding facilities required to report?***

The most detailed comments received in response to this question related to consideration of GHG emissions from mobile transportation sources. Several respondents noted the potential for overlap between emissions addressed under a "carbon tax" and those which might fall under "cap and trade" regulations. These respondents most commonly advised the ministry to "consider the GHG reporting approach taken by California" where "regulated facilities have the option to voluntarily identify, calculate and separately report facility emissions from mobile combustion" enabling companies to "have the option of choosing the best GHG compliance and emission reduction options for their operations and market sector".

Specific comments on other aspects of the ministry's intentions included:

- "In order to support industries' transition to a low carbon operating environment, policies and procedures should explicitly support the investigation of economic instruments that could be employed to absorb the impact on facilities of higher costs for regulatory measuring, reporting, and verification requirements – often this can be attained by some form of transitional measures relative to regulations for new investments";

- “It is vitally important to the WCI’s collective economic well-being that analyses be undertaken of measures that could be introduced to limit or avoid carbon ‘leakage’ to non-WCI member economies – even the best intentions for climate change can be thwarted if carbon emission intensive production is simply moved offshore to jurisdictions with low environmental regulatory requirements”;
- “Is it necessary to define the facilities required to report? What about requiring any facility over the threshold limits, including but not limited to those listed?”;
- “We believe the by expecting only 160-180 facilities to fall between the 10 kt (3kt for upstream oil and gas) reporting only threshold and 25 kt cap and compliance threshold, the [ministry] is underestimating the administrative burden to government and industry”;
- “Consider omitting food production (primary)”;
- “We suggest that ‘pipeline transportation, natural gas transmission and distribution systems’ be reworded as ‘natural gas transmission and/or distribution systems’... liquid petroleum pipeline systems are operated using electricity”;
- “Are facilities that are approved by MEMPR as ‘Clean Renewable Energy’ exempt from reporting under this regulation?”;
- “Need to understanding the relationship between reporting under this regulation and [public sector organization] PSO general reporting requirements related to carbon neutrality progress – some PSOs have facilities that will require reporting under these proposed regulations”; and
- “It is difficult to comment on the specifics of the types of facilities this would encompass – the ministry should consider publishing an Appendix to this consultation paper listing these 240-280 facilities and their estimated emissions of GHG – by having an indication of the facilities under consideration, the public will be able to better understand which facility sectors and facilities will be regulated.”

**Response Form Question 3.5: Do you have any comments regarding the *sources and activity data* to be reported?**

This question generated a significant number of detailed and/or specific responses. Several respondents commented on the rapidly evolving state of regulations pertaining to GHG emissions, and recommended caution in establishing “detailed” rules and regulations while noting the need for clarity, consistency and harmonization across industry sectors and jurisdictions. A number of respondents felt that the activity data to be reported proposed in table 4 of the intentions paper is “overly onerous” and recommended “a policy of administrative simplicity”. One respondent commented, for example, that the reporting regulation “should only require information directly relevant to developing an emissions inventory – namely, source/sink categories and emission quantities for covered gases”.

Echoing comments made in response to other questions, several respondents recommended that “nationally adopted definitions be utilized for defining sources (e.g., industrial process emissions, venting emissions, other fugitive emissions)”. Several respondents supported or felt “encouraged to see” disaggregation of source/sink categories to a greater degree than in proposed WCI requirements, recommending “mirroring” Environment Canada categories. Re-

spondents also noted that harmonization of the BC cap and trade program and carbon tax will be important in clarifying reporting requirements. One respondent, for example, recommended that “a first step towards harmonization of the two policies...[could involve a requirement in the reporting regulation that] emissions from sources that are currently subject to the carbon tax [are identified and] ...based on the same quantification method already used to report for tax purposes”. Other respondents felt that the tracking mobile non-transportation fuel combustion and on-site mobile transportation emissions was not appropriate for reporting but rather such emissions would be addressed under the carbon tax.

A number of respondents commented on the topic of fugitive emissions, with several noting the “high uncertainty regarding estimation” of these emissions. Some respondents felt, for example, that “the estimate emissions are too variable [e.g., in the case of coal mines] for reporting within a cap and trade framework where comparison and tracking of an individual facility’s progress towards GHG targets is essential”.

Several respondents expressed support or agreement for inclusion of electricity generated from thermal sources in the reporting regulation, commenting, for example, that “recognizing the carbon content of electricity imported from outside of the province facilitates a comparative analysis of the impact of different sources of energy on overall GHG emissions”. One respondent commented further that “the requirement to report thermal electricity imports from out of province should be the sole responsibility of BC Hydro...and that [coal and other mines] should be exempt from the consequences of BC Hydro’s failure to build the infrastructure required to meet the growing demand for electricity in the province”.

Additional comments included:

- “It is not clear why data on production, start-ups and shut-downs are to be reported and verified...[we] believe that this data is only relevant when discussing an intensity-based regulatory framework like Alberta’s”;
- “Appropriate emission factors [should] be used to estimate emissions using fuel, flare, and vent data already reported for production accounting purposes – this methodology would be consistent with the guidance provided by the [American Petroleum Institute] API compendium, which has been developed for the United States oil and gas industry”;
- “If specific government emissions programs (such as offsets, credit for early action) require extensive activity data to be effective, [only then should] the requirements of those specific programs include detailed activity data – those facilities not applying to these programs should not be required to fulfill the same level of information gathering”;
- “Electricity generation capacity is typically expressed in MW, not MWh”;
- “[Our group] is concerned with the level of detail in proposed reporting content...the BC approach is too intensive with respect to both data and process information”.

***Response Form Question 3.6: Do you have any comments regarding emission source categories that will be exempt from this phase of the proposed regulation?***

Most respondents who commented on this question noted that they “do not disagree with the source categories listed” or that the categories “seem appropriate”. Specific comments or suggestions for exemption included:

- “Categories already subject to the BC Carbon Tax should be exempted, as this information is already provided to government”;
- “[We] would be pleased to participate in and provide input to discussions concerning emissions from hydroelectric facilities”;
- “Consider exempting greenhouse farms”;
- “ ‘Clean and Renewable Energy’ [facilities should be exempt from reporting requirements]”;
- “[We] do not understand why the fuel throughput at a petroleum products terminal would have any bearing on GHG regulatory reporting”; and
- “Because good emissions reporting is valuable regardless of whether or not it is needed for a cap and trade system, we would recommend including the majority of these sources – in particular we recommend: including air and marine transportation in the initial phase of reporting...; that the regulation require emissions from residential and commercial heating fuels, and from all transportation fuels to be reported...; [and] including emissions from wastewater treatment and landfills under the regulation...”.

#### **4. Quantification Methods to be Used in Reporting**

See intentions paper section 6.

***Response Form Question 4.1: Do you have any comments or recommendations regarding utilization of Western Climate Initiative (WCI) approved quantification methods in developing the proposed regulation?***

Respondents commonly “recognized” or “supported” the value and/or use of established estimation tools for specific sectors and that are “internationally recognized or accepted”. A number of respondents also commented on “the level of uncertainty that still exists regarding the specific emissions quantification and monitoring requirements being considered for emissions sources”, expressing a desire for continued engagement of industry and other stakeholder groups when considering adoption of quantification methods. Several respondents pointed to industry-specific groups (such as the International Aluminum Institute, the National Council for Air and Stream Improvement for the forest products sector and the Canadian Association of Petroleum Producers) who have developed guides for quantification methodologies that have been recognized by Environment Canada and/or international reporting bodies.

Several respondents expressed concerns regarding the cost and utility of requiring continuous emissions monitors (CEMs) for quantification of carbon emissions, recommending in their stead alternative methods such as fuel flow monitoring.

*Response Form Question 4.2: Do you have any comments regarding quantification of thermal electricity import emissions?*

Specific comments in response to this question included:

- “The requirement to report thermal electricity imports from out of province should be the sole responsibility of BC Hydro”;
- “[We] support the First Jurisdictional Deliverer approach to thermal electricity emissions quantification”;
- “Use grid-average emission factors by region rather than factors based on a combination of ‘build and operating margin’ – these can be obtained from Environment Canada and USEPA (E-Grid) – for GHG inventory reporting, these are more appropriate because they consider the average long-term trends in emissions across a grid and are based on historical, accurate data”;
- “The province or BC Hydro should provide a factor to be used or a way to quantify for consistency in BC”; and
- “It is our understanding that this matter is being addressed by the Electricity Sub-committee of the WCI”.

*Response Form Question 4.3: Do you have any comments or suggestions regarding appropriate quantification methodologies for biomass combustion emissions?*

Several respondents noted that “if emissions from biomass combustion are considered carbon neutral, there should not be a need to report them”. Additional specific comments included:

- “Prescribed methodologies for biomass could prove problematic due to the varied nature of biomass, including measurement techniques such as bone dry tonnes, oven dry tonnes”;
- “A separate working group needs to develop the appropriate solutions to quantifying Combined Heat and Power (CHP) and biomass emissions – it is critical that the Working Group be part of an industry coalition providing input to the BC government and WCI representatives on developing CHP policies”; and
- “I do not buy the argument about biomass being carbon neutral – the biomass grew when CO<sub>2</sub> concentrations were low, but we burn it now when they are high – how is this neutral? ... the province could/should provide emissions factors for CH<sub>4</sub> and N<sub>2</sub>O for different fuels and burners”.

*Response Form Question 4.4: Do you have any comments or suggestions regarding use of ‘de minimis’ quantification methods?*

All respondents who commented on this question supported the use of “de minimis” quantification methods where recognized as appropriate by Environment Canada or international bodies as a means of simplifying reporting requirements. One respondent noted that “the concept should not be used to justify exclusion of emission sources but rather for

justifying the use of simplified quantification approaches". Another supported the methods, "provided that: 1) the methods used are expected to lead to conservative estimates, and 2) *de minimis* quantification be limited to both a small fraction of a facility's estimated emissions and by an absolute threshold".

**Response Form Question 4.5: Do you have any additional comments or suggestions regarding quantification methods for use in reporting emissions under the proposed regulation?**

Several respondents provided comments that have been noted in responses to previous questions, such as support for harmonizing quantification methods with Environment Canada standards and concern about potential requirements for continuous emissions monitoring. As well, a number of respondents provided specific comments or suggestions, including:

- "Quantification methods are very industry-specific – our industry would want to be very involved in the development of the quantification methods prescribed for our sector";
- "The regulation should include a requirement to report a cement 'Efficiency Metric' – it is anticipated that, under California AB-32, the GHG cap on cement sector emissions will be informed by the use of a cement GHG efficiency benchmark – BC cement manufacturers similarly support the development of a cap through such a benchmark";
- "The shorter timeline for reporting of electrical generating facilities would penalize facilities with process emissions such as the pulp and paper and wood products industry which use cogeneration in electricity production";
- "The methodologies that are generally, and globally, accepted for GHG calculations from the oil and gas industry do not require specification of each individual source";
- "the requirement to report emission reduction activities is redundant; if emissions are reported annually, it will be obvious as to whether the facility has implemented emissions reductions projects or not – the need to explicitly detail (and have verified) all reduction activities is a non-value adding piece of reporting";
- "For quantification of SF<sub>6</sub> emissions from electrical utilities, it is recommended that the Ministry adopt the SF<sub>6</sub> Emission Estimation and Reporting Protocol for Electric Utilities in Canada protocol (re: an MOU signed by the Canadian Electricity Association and Environment Canada)"; and
- "We recommend that the government provide support by facilitating (but not funding) training in measurement techniques and other aspects of compliance with the regulation for regulated emitters – this would allow for economies of scale in training, thereby reducing costs to regulated emitters".

## 5. Verification

See intentions paper section 7.

**Response Form Question 5.1: Do you have any comments regarding the facilities that would be required to obtain 'third party' verification for their reported emissions?**



While many respondents expressed support for the intent behind verification requirements, many raised concerns about the feasibility of implementing verification requirements at this time. Concerns identified by respondents included: availability and cost of suitably qualified verifiers; difficulty and cost of access to remote or seasonally accessible facilities; accreditation process and accountability (or “liability”) of third party verifiers; and time requirements for verification (following submission of reporting information). One respondent, for example, commented that “requiring verification will result in substantial annual costs for each facility... [and would be] a major deviation from all other regulatory practices...[setting] a concerning precedent”. The respondent recommended instead that “regulated sectors self report data using defined protocols and tools and [that the ministry]... audit the data [under established compliance and enforcement policies]”. Some respondents noted that despite concerns regarding verification of reporting, they did however “support verification of transactions under a cap and trade system and offsets”. Respondents who expressed support for verification requirements noted, for example, that “it provides a robust scheme and the province does not have the resources to review all reports” and “it will help ensure accuracy and build public support for any emissions trading program”.

Specific comments included:

- “The reporting regulation might also consider some form of incentive for reporting facilities to test their data verification earlier than the required date for verification, which is five months following the June 15, 2010 reporting – this would allow both facilities and the Ministry to get started with dealing with verification reports prior to the regulated deadline”;
- “The requirement for third party verification deserves more discussion”;
- “It is suggested that after the first verification, the frequency be relaxed to once every 3 years, or at the end of each ‘allocation period’ under the cap and trade system – also the regulation should be structured so that a large pool of verification service providers can qualify for this role, thus enabling cost competitive services”;
- “At the federal level, self declaration coupled with the potential for penalties under the Criminal Code ensures the accuracy and reliability of reported emissions – it follows that a similar approach would suffice in BC as well”;
- “[We] recommend that a fixed date such as September 1<sup>st</sup> be maintained as a deadline for a final, verified report – giving at least three months or more for verification – the deadline for reporting is recommended to be June 1<sup>st</sup>”;
- “[We] recommend that verification occur every 3 to 5 years – this will ensure a reasonable level of accuracy without overly straining limited resources”;
- “To our knowledge, no jurisdiction, law or standard in Canada sets a restrictive time use clause of verifiers as is under consideration by BC – [we] urge [the ministry to] leave verifier / entity relationships unrestricted”;
- “We would recommend...that in the initial stages, verification requirements be limited to those facilities that emit >50,000 tonnes CO<sub>2</sub>e”.

**Response Form Question 5.2: Do you have any comments or suggestions regarding accreditation of verification providers?**

In response to this question respondents reiterated concerns that the verify pool is “extremely limited” at present while supporting “common [accreditation standards] across Canada and WCI states”.

Additional specific comments or suggestions included:

- “Consider ‘verification team leads’ [with others working under direction/supervision of the lead]”;
- “Consider allowing other professionals, such as chartered accountants, professional engineers or professional foresters, to provide third party verification services”;
- “The BC government should encourage and assist in the development of one standard across Canada generally based on the principles of CSA/ISO standards”;
- “For verifiers not yet accredited, and for reporters, this [limited pool and need for accreditation] could create a bottleneck, at least initially – usually, SCC/ANSI-type bodies will require actual cases to be completed prior to granting accreditation “;
- “Maybe BC could sponsor a trial program to get some of the largest reporters to work with some verifiers to create a pool of qualified verifiers prior to the intended period to begin verification – cost would be mostly borne by the verifiers as their qualification process”;
- “We strongly recommend that accreditation be done at the verification firm level, not at an individual verifier level – the firm should be responsible for assembling a competent verification team”;
- “It would be helpful if the Ministry will have a list of accredited verification providers available (e.g. posted at its website) to reporters”;
- “The regulation should include provisions for setting up or drawing upon a professional body to accredit, license, and discipline verifiers and verification firms.”

**Response Form Question 5.3: Do you have any comments or recommendations regarding development and use of appropriate protocols for verification?**

Most respondents who commented on this question recommended “standard, transparent protocols...harmonized with other jurisdictions across Canada” or “industry standard” protocols such as ISO 14064-3 or The Climate Registry’s General Verification Protocol. One respondent supported “in particular... a performance based verification schedule, such as the five year verification cycle allowed by [The Climate Registry] TCR that permits a streamlined verification process in the second through fifth years of a cycle; or by the [California Air Resources Board] CARB which provides for a three year cycle”.

Respondents who expressed concern about the development of protocols noted the limited pool of existing accredited verifiers and the “possibility of inflated rates...or delays in verification”. One respondent felt that the proposed verification protocols are “unnecessarily elaborate, costly

and excessive relative to the needs of carbon verification” and recommended instead “using an approach like the Contaminated Sites Regulation that utilizes Qualified Professionals”.

One respondent recommended that “all verification providers be subject to a time-limited relationship with any single facility or company” and that “the time limit should be placed on the individual verifier and the verification firm”.

## **6. Reporting Process**

### **A. Obligation to register and report**

See intentions paper section 8.1.

*Response Form Question 6.1: Do you have any comments regarding the facilities that would be obligated to register and report emissions under the proposed regulation?*

Respondents who commented on this question reiterated points noted under other questions, with specific comments that included:

- “The thresholds for mandatory registration have been set too low at 10 000 tonnes of CO<sub>2</sub>e per year... preferably, the ministry should set its threshold to match that of Environment Canada at 100,000 tonnes or if this is not acceptable, set a single threshold at 25 000 tonnes CO<sub>2</sub>e per year, as per WCI requirements”;
- “Biomass facilities should not be required to report... and facilities should be required to report only at the threshold level set for verification”;
- “This is definitely a necessity – will the government of BC also conduct random checks to see if facilities that should be reporting are reporting?”;
- “[We] agree that there must be no costs to regulated entities for registration or reporting of carbon emissions under the proposed system....we are not in favour of over reporting of data... [and] note again...your intentions paper [proposes] onerous reporting including ‘GHG emissions reduction activities taken’ – this is well outside the bounds of emissions reporting”; and
- “My experience with BC companies is that they often need more than one request to do something like report”.

*Response Form Question 6.2: Do you have any comments or suggestions regarding the registration and reporting information that should be provided to the ministry?*

Respondents commonly recommended that the ministry work with Environment Canada to adopt a “one-window” approach for reporting.

Additional specific comments included:

- “Too much detail is required to be provided under the current proposal...[such]detail as process flows and equipment specifications could be potentially proprietary information... [and] is unnecessary since it would be covered in the protocols or possibly within the verification procedure”;
- “The list of recommended source and activity data to be included is overly onerous and will provide little if any benefit from the perspective of developing an accurate emissions inventory... [we] strongly oppose including information that is not directly relevant to emissions data, such as inputs, feedstocks, equipment specifications or processes”;
- “We recommend that facilities also be required to report the name of verifier and duration of relationship [and] that the regulations explicitly require facilities to report for a calendar year even where they have gone out of business”.

## **B. Electronic submission**

*Response Form Question 6.3: Do you have any comments or suggestions regarding electronic reporting requirements and/or formats for consideration by the ministry?*

Specific comments in response to this question included:

- “Reporting requirements and templates/formats need to be made available to the industry recipients before being passed as legislation for feedback purposes”;
- “[We] support the use of electronic submissions and the intent to harmonize with other systems such as Environment Canada’s”;
- “Electronic is great, but Environment Canada’s OWNERS program was a challenge – hopefully something more user friendly can be found”;
- “BC should consult the recently released USEPA Consolidated Emissions Reporting Schema to ensure compatibility”.

## **C. Milestones for registration, reporting and verification**

*Response Form Question 6.4: Do you have any comments or recommendations regarding the proposed starting year for reporting estimated emissions (calendar year 2009) and/or requiring facilities with emissions over 20 000 tonnes to estimate emissions for 2006 through 2008 calendar years?*

Differing recommendations were made by respondents to this question. Some respondents felt that the proposed starting dates are “reasonable” or “entirely appropriate”. A number of other respondents, however, commented that “none of these [proposed] dates align with other jurisdictional reporting deadlines, most notably the federal deadline of June 1 for both GHG and [National Pollutant Release Inventory] NPRI reporting” or that “BC [should] establish reporting deadlines that are the same as federal requirements”.

Several respondents recommended that the ministry accept and utilize information that facilities have previously reported to Statistics Canada and federal GHG inventories for the years 2006-2008.

*Response Form Question 6.5: Do you have any comments or recommendations regarding proposed milestones for facilities to register with the ministry?*

A limited number of responses were received for this question. One respondent commented that “the threshold of 10 000 tonnes is too low” and another noted that “it is not completely clear what date registration is required beyond 2009”.

*Response Form Question 6.6: Do you have any comments or recommendations regarding proposed milestones for facilities to report emissions to the ministry?*

The limited comments received in response to this question echoed previously noted points, such as harmonizing reporting dates with federal requirements.

*Response Form Question 6.7: Do you have any comments or recommendations regarding proposed milestones for submission of verification documentation to the ministry?*

Respondents commenting on this question pointed to previous responses to verification questions (5.1-5.3 above). Several respondents commented that “one month is too short” a time for a pool of verifiers to complete the work that would be required, with one respondent suggesting instead three months.

*Response Form Question 6.8: Do you have any comments or recommendations regarding proposed provisions pertaining to extension of reporting requirements by the ministry?*

Among the limited comments received in response to this question, one respondent thought that “the ministry [will] receive many requests for extension” while another noted that “extension provisions...can be used as a form of delay by regulated parties”.

#### **D. Reporting fees and costs**

The ministry does not intend to require a fee for submission of registration, reporting or verification documentation (see intentions paper section 8.4)

*Response Form Question 6.9: Do you have any comments regarding reporting fees and costs associated with the proposed regulation?*

Respondents who commented on this question most commonly supported the ministry’s intention, frequently noting that there are costs involved in data collection and reporting for parties required to report. A number of respondents emphasized the importance of harmonizing

and/or ensuring compatibility with federal Environment Canada reporting formats. One respondent further suggested that the reporting process could be strengthened through “development of guidance documents...[as well as providing] technical support, particularly in the early stages of reporting”.

One respondent noted that “the ministry could save taxpayer dollars by allowing a private sector registry to cost recover its operations”. Another respondent recommended “that the government consider applying a mandatory reporting fee or other method of revenue collection in order to help cover the auditing and compliance costs that the ministry will incur in running an effective regulatory program”.

## **E. Compatibility with existing and emerging emission reporting**

See intentions paper section 8.5.

*Response Form Question 6.10: Do you have any comments or recommendations for the ministry that might encourage or support compatibility of emissions reporting (e.g., between Environment Canada, Metro Vancouver and B.C. requirements)?*

Respondents almost universally expressed support for a “one-window” or “single consistent” reporting system. Several respondents also commented on the need to ensure that WCI and Environment Canada reporting formats are compatible.

Additional specific comments or recommendations included:

- “We suggest that the BC government examine...ways to minimize the costs associated with quality assurance or data verification...[such as] requiring only self certification without third-party verification for small emitters or small businesses, self-certification for certain monitoring systems [and/or] cyclical 3<sup>rd</sup> party verification or other methods to reduce verification burdens and costs”;
- “we urge the Ministry to consider the reporting guidelines adopted by Alberta under the *Specified Gas Reporting Regulation*...facilities report their emissions through the Electronic Data Reporting System (EDRS), [with] information provided to Alberta Environment and Environment Canada – the reporting system is administered by Statistics Canada”;
- “Once a provincial GHG reporting system is in place, Metro Vancouver should cease to require direct reporting by emissions sources in the region – consistent with the single window approach...data should be collected by one agency and then distributed to all relevant regulatory levels”; and
- “Although this intention is laudable, it does not provide any specifics regarding the development of a single reporting system that would satisfy all compliance obligations facing the mining and smelting industry at both the provincial and federal levels”.

## 7. Public Disclosure

See intentions paper section 9.

*Response Form Question 7.1: Do you have any comments or recommendations regarding provisions for compilation and posting or reporting information – to ensure transparency and appropriate public disclosure?*

Specific comments received in response to this question included:

- “Reporting of total emissions of CO<sub>2</sub>e for each facility provides sufficient transparency and adequate confidentiality”; and
- “It is essential that emissions data disaggregated by type of gas and source activity (as defined in the intentions paper) be provided to the public... companies must be required to disclose publicly sufficient information to maintain public confidence in the emissions trading system...there is a compelling public interest in the public disclosure of company-specific GHG emissions and related compliance information – this interest is not dissimilar to the public interest in financial information on publicly traded companies, and goes beyond the public interest in general information held by government”.

*Response Form Question 7.2: Do you have any comments or recommendations regarding appropriate protections of information that may be of a competitive or proprietary nature?*

Several respondents expressed concern that reporting information disclosed to the province could be subject to the Freedom of Information and Protection of Privacy Act and/or that “data reported at the individual source and production line level [could] provide potentially damaging information to competitors in the same sector”. To address this concern, one respondent suggested that “information and data released to the public and WCI partners should not be reported below the facility emission source category level, (i.e. no individual emissions source data should be released, only total emissions by source category mostly if it is related to financial issues)” or that alternatively “the Carbon Disclosure Project approach on this issue [could] be considered”.

Additional comments included:

- “The ministry...should be fully aware of the carbon price implications of the public release of GHG reporting data – a clear strategy should be developed by the province in coordination with other WCI partners to ensure harmonized release of reporting data, in order to minimize the possible carbon market impacts, along the lines of the ministry’s proposal to pursue a common WCI release date”; and
- “The burden of proof that certain information should be kept confidential should be placed on those who wish it to be so...the norm of the system should be to make all relevant information available to the public, and if there are exceptions, compelling justification must be provided, demonstrating that the public interest does not outweigh in importance the needs of the entity requesting confidentiality”.

## 8. Compliance and Enforcement

See intentions paper section 10.1 to 10.4.

*Response Form Question 8.1: Do you have any comments regarding proposed obligations for reporting and record keeping?*

Specific comments received in response to this question included:

- “It is very difficult to apply a high standard of reporting for back cast years, particularly for those participants who have not been captured by other programs”;
- “The verification process is largely directed toward assuring markets of the reliability of allocations in the trading regime – many biomass energy facilities will not be subject to verification, but on account of the reporting threshold, these facilities could be subject to audits and inspection by the ministry...clarification should be provided on enforcement, especially those entities that fall well under the compliance threshold”;
- “We propose that the historical emissions data be made available in a central location (such as The Climate Registry) rather than placing the obligation on the reporting entity... [we] recommend a mandatory record-keeping period of no more than five years, and preferably the three years required by Alberta’s *Specified Gas Reporting Regulation*”; and
- “Given the infancy of the cap and trade program, [we] believe all records should be maintained indefinitely until the system is running effectively – from that point forward, records should be kept for seven years”.

*Response Form Question 8.2: Do you have any suggestions regarding appropriate and effective means to promote compliance with the proposed regulation?*

Suggestions received in response to this question included:

- “Ensure complete...and consistent reporting within and between sectors; meaningful and fair public disclosure of facility by facility results; set a future target date for serious... compliance actions; engage stakeholders by establishing up front a set date for [regulation] /process revisions after one or two reporting periods; [and] establish and support (i.e., attend) reporting stakeholder groups, likely by sector – link with a verifier stakeholder group into the process to help level out verification requirements”; and
- “Hiring auditors is a good idea”.

*Response Form Question 8.3: Do you have any suggestions regarding topics or information areas relating to the regulation where guidance documents or training would be useful or appropriate?*

Suggestions received in response to this question included:

- “Verification guidance to achieve required assurance levels, particularly in the handling of ‘materiality’ and poorly documented reporting protocols”;



- “An approved training supplier could be selected from the private sector to ensure consistency of delivery and this would save the need to build this infrastructure from within government”; and
- “Alberta published some useful guidance documents about reporting baselines, offset projects, verification...[also consider] helping course providers promote their courses – say on a website (with or without endorsement)”.

**Response Form Question 8.4: Do you have any comments or suggestions regarding appropriate and effective means to enforce compliance with the proposed regulation?**

A number of differing and specific comments were received in response to this question, including:

- “I feel that the enforcement provisions described in the proposed regulation are weak... [consider] a sliding scale of consequence...there are precedents for such graduated penalty provisions in environmental law in Canada. (See *Ontario Environmental Protection Act*)”;
- “Be gentle at the beginning – set a firm and significant compliance date after a short period of experience development...perhaps initial non-compliance penalty could be...by rolling reductions into subsequent years (to a limit of one or two) to help support/grow offset market, and to enable the currently limited number of offset projects to catch up to the compliance requirement”;
- “Third-party verification is an excellent way for compliance promotion – it might be useful to require GHG verifiers to report non-compliance issues to the program authority”;
- “[We] agree with the proposed approach to rule development and violations – we believe that the rules of reporting be consistently enforced across the province and that the rules of reporting should be consistent with existing jurisdiction rules – ultimately, enforcement must come from local regions in keeping with existing legislation”;
- “There should be two triggers for the violation of the reporting rules – the first is the failure to file completed emissions information as required under the reporting regulation – the second trigger should be failure to file by the reporting deadline – some leniency must be shown in the early years of reporting for data accuracy and approach recognizing reporters’ learning curves and potentially unforeseen problems – consideration should be given to retroactive data correction in the first reporting year”;
- “Once you have examples that a type of business is over a threshold, start a campaign to reach out to the other companies in that same line of business to make the playing field level”.

***Response Form Question 8.5: Do you have any comments or suggestions regarding enforcement measures and penalties related to the proposed regulation?***

Among the limited comments received in response to this question, respondents recommended that:

- “The regulation should also allow for enforcement activities against the “facility operator”, the person named in as the responsible reporter, as well as the ability to take enforcement action against a corporation, and its Directors and Officers”; and
- “Penalties should be set at a level that is high enough to ensure that no facility would purposely choose to pay the fine rather than comply with the regulations – repeat offenders should also be subject to escalating penalties... facilities that are found to have willfully or negligently misreported emissions should be subject to more stringent reporting requirements going forward for a period of time...[and] the regulation [should] include protection for whistleblowers that report acts of non-compliance from their companies”.

## **9. Other Comments**

***Response Form Question 9.1: Do you have any other comments or suggestions for the ministry?***

Many respondents provided detailed submissions or summary information to accompany responses to specific questions identifying in the ministry intentions paper and response form. A number of respondents commented that they “welcomed” or expressed support for the ministry’s efforts to communicate intentions and solicit comment on emerging direction. Many respondents also noted that “many details” concerning the proposed reporting requirements have yet to be finalized, hence further consultation is warranted and would continue to be welcomed. Respondents also commonly reiterated the importance of harmonizing reporting requirements with federal and emerging WCI processes.

Additional specific comments not explicitly noted under previous questions included:

- “Externalities are not being fully accounted for, as coal exported from BC to be used in other countries is not part of this system – this system will need to resemble the EU ETS, in its relative sophistication and the level at which it caps emissions from varying sectors”;
- “Within the context of climate change, maintaining a strong agricultural industry is paramount – even minor shifts in climate in vulnerable areas such as California would have an immense impact on BC’s food supply – in addition to emissions mitigation, the policy and regulatory framework must address such critical adaptation issues”;
- “We strongly recommend that the ministry identify those firms that will potentially be affected by the GHG Reporting Regulation and implement outreach initiatives to ensure that they are aware of their reporting obligations”;
- “We believe that the proposed regulations as currently set out are overly prescriptive and onerous, and not fit for purpose – it is [our] recommendation that British Columbia revise the proposed regulations to suit the intent of the Western Climate Initiative’s mandate; that

is 'to identify, evaluate, and implement collective and cooperative ways to reduce greenhouse gases in the region' – measurement and reporting of total greenhouse gases, as per the Specified Gas Emitters Regulation of Alberta, aligns with the WCI mandate and would prove to be less administratively burdensome (for both the regulators as well as operators) than many of [the] detailed items that are contained in the proposed regulations... while alignment with the WCI mandate is presumably one of the objectives of the BC government, it is important to note that it is the government of Alberta that has set facility level targets for its industrial sectors, as well as mechanisms for complying with those targets, versus the current state of the WCI, which at this point in time is purely conceptual”;

- “The process of creating and continually improving GHG reporting regulations presents a clear opportunity for collaboration between industry and government – draft regulations should be subject to regular collaborative industry-government review...we believe regular reviews of the regulations should take place given that constant changes in technology, reporting methods and other factors demand that the regulations remain fully up-to-date at all times”;
- “The current lack of clarity on how the set of policies that address emissions from transportation fuels (regardless of vehicle type of on/off road application) interact with one another is causing delays among large final emitters to pursue activities to ensure that they are in compliance with multiple regulations – one way to achieve clarity would be to create a transportation sector focused industry climate change working group to address these issues”;
- “[Our group] has been engaged with BC and the WCI for one year now – we are concerned about these consultations on the cap and trade system’s design and its ancillary pieces – many of the proposed requirements do not reflect input received during these consultations – we have not had the opportunity for the kind of dialogue and information exchange we need on cap and trade issues and are increasingly concerned that the impacts of proposals on the BC forest industry are not well understood – we ask for the province’s on-going participation with [our group] on its various subcommittees to help develop appropriate approaches to the cap and trade program”;
- “One of the biggest differences between BC and Alberta is that Alberta went with Professional Engineers and/or Chartered Accountants as third party verifiers – they should know first hand whether or not this was a good choice – if they had it to do again, what would they do? I would ask them and ask why”;
- “GHG emission verifications normally call for an interdisciplinary team of professionals whose combined skills provide the necessary competence to perform such verifications – we strongly recommend that accreditation be done at the verification firm level, not at an individual verifier level – the firm should be responsible for assembling a competent verification team”;
- “Companies may now be able to consider their competitive advantage from investing in clean technologies in terms of benefiting from better performance – with the ability to gain from sales of allowances...[the ministry could consider] an ‘opt-in’ option that would allow voluntary participation in a cap and trade system and recognize and reward investment by ‘early adapters’ ”;
- “If the implementation of the regulations matches the spirit of the intentions paper, BC’s reporting requirements will ensure high quality information on GHG emissions is available in

BC and provide a useful example for other jurisdictions developing similar legislation – general comments: minimize the potential for facilities that should be reporting to avoid those requirements... to be effective, the regulations must include provisions for the ministry to perform random or with-cause audits of both registered and non-registered entities to check for compliance – in addition, the regulation must include penalties for non-compliance; ... [also we stress to you] the importance of preventing or discouraging companies from splitting their emission sources to fit under the reporting thresholds (i.e., 10 000 and 20 000 tonnes of CO<sub>2</sub>e) – one possible approach [would be] to give the ministry the authority to impose reporting and compliance requirements on companies claiming to be below the proposed thresholds, if there are reasonable concerns about the manner in which the entity has disaggregated its emission sources to avoid these thresholds; ...ensure there are adequate resources for the Ministry to enforce these regulations – the success of the GGRTA is contingent upon sufficient resources being available to ensure that emissions are reported accurately and penalties for non-compliance are enforced in a fair and timely manner...strive for harmonization where appropriate...however, any efforts to harmonize regulations should not result in less stringent standards...[and] review and update the regulation on a regular basis...the regulation should contain a provision that expressly requires a review of the regulation’s effectiveness...a good window for review would be after the 2011 data is reported...and possibly every three years thereafter”.

## Appendix A: Acronyms and Abbreviations

<b>Acronym or Abbreviation</b>	<b>Definition</b>
ANSI	American National Standards Institute
BC	British Columbia
CARB	California Air Resources Board
CEMs	Continuous Emissions Monitors
CEPA	<i>Canadian Environmental Protection Act</i>
CHP	Combined heat and power
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent (global warming potential of a GHG)
CSA	Canadian Standards Association
EC	Environment Canada
EDRS	Electronic Data Reporting System
EU ETS	European Union Greenhouse Gas Emission Trading Scheme
GGRTA	<i>Greenhouse Gas Reduction Targets Act</i>
GHG	Greenhouse Gases
GWP	Global Warming Potential (c.f. CO <sub>2</sub> e)
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
Kt	Thousand tonnes
MEMPR	Ministry of Energy, Mines & Petroleum Resources
MOE	Ministry of Environment
NCASI	National Council for Air & Stream Improvement
NPRI	National Pollutant Release Inventory
OWNERS	One Window to National Environmental Reporting System (Environment Canada)
PSO	Public Sector Organization
SCC	Standards Council of Canada
TCR	The Climate Registry
USEPA	United States Environmental Protection Agency
WCI	Western Climate Initiative