



Ontario Energy Board

Report of the Board

Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities

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1 Introduction

On May 18, 2016, the *Climate Change Mitigation and Low-carbon Economy Act, 2016* (*Climate Change Act*) received Royal Assent. On May 19, 2016, Ontario Regulation 144/16, *The Cap and Trade Program (Cap and Trade Regulation)*, was issued, which provides details about the Cap and Trade program. The *Climate Change Act* and the *Cap and Trade Regulation* establish the details of a Cap and Trade program for the purposes of reducing greenhouse gas (GHG) emissions in Ontario. The *Climate Change Act* establishes that the first compliance period for the Cap and Trade program will run from January 1, 2017 until December 31, 2020, with subsequent three-year compliance periods.

Under the *Climate Change Act*, Enbridge Gas Distribution Inc., Union Gas Limited and Natural Resource Gas Ltd. (the Utilities) as natural gas distributors have the following compliance obligations:

- Facility-related obligations for facilities they own or operate; and,
- Customer-related obligations for natural gas-fired generators, and residential, commercial and industrial customers who are not Large Final Emitters (LFEs) or voluntary participants.

The Utilities will need to develop strategies to meet their *Climate Change Act* compliance obligations. New costs will be incurred by the Utilities to comply with the *Climate Change Act* and these costs will have to be recovered from customers. Natural gas utility rates are regulated by the Ontario Energy Board (OEB). The OEB will need to assess the cost consequences of the Utilities' plans for complying with their obligations for the purpose of approving cost recovery in rates.

The Utilities' Compliance Plans are expected to support the government's effort to reduce GHG emissions in Ontario. For the purposes of reviewing and approving cost consequences associated with the Utilities' obligations, the OEB expects each Utility to develop Compliance Plans which provide robust information describing how it will meet its obligations.

The OEB will assess the Utilities' Compliance Plans for cost-effectiveness, reasonableness and optimization, and ultimately to determine whether to approve the associated cap and trade costs for recovery from customers. The OEB has developed this Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities (the "Regulatory Framework") to outline the approach it will take

in assessing the cost consequences of the Utilities' plans for complying with the Cap and Trade program.

The Cap and Trade program and its associated carbon market are new to Ontario. The OEB expects that significant experience will be gained as the program and markets mature. In order to benefit from this experience, the OEB will undertake a review of the effectiveness of the Regulatory Framework before the end of the first compliance period (i.e., before December 2020).

1.1 The Process

In order to develop a framework for assessing the cost consequences of rate-regulated natural gas utilities' cap and trade activities, OEB staff, assisted by expert consultants, undertook research into the experience of other jurisdictions (specifically Québec and California) in addressing the regulatory issues related to cap and trade programs.

OEB staff then engaged in discussions with stakeholders representing customers and industry. A series of meetings with stakeholders were held during the month of April 2016 to discuss the key elements to be addressed by the Regulatory Framework and the issues, considerations and options for each of these elements. The staff presentation and summary notes of these meetings have been posted on the OEB's website.

On May 25, 2016, the OEB issued a Staff Discussion Paper ([the Discussion Paper](#)) which outlined OEB staff's proposals on the key elements, issues, options and proposals for addressing issues to be included in the Regulatory Framework. The OEB invited stakeholders to submit their written comments by June 22, 2016. Comments on the issues and proposals set out in the Discussion Paper were received from over 40 stakeholders, including natural gas utilities, consumer groups representing residential, commercial and industrial natural gas users as well as environmental organizations. While all comments were considered, not all have been summarized in this Report. All comments received are posted on the OEB's website [here](#).

2 Ontario's Cap and Trade Program

Ontario's Cap and Trade legislation and regulations are based on the cap and trade program design of the Western Climate Initiative (WCI). Ontario's Cap and Trade program is economy-wide and covers both process and combustion emissions. The program will start in January 2017.

In Ontario's Cap and Trade program there are three types of participants:

- Mandatory participants: including Large Final Emitters (LFEs) who emit 25,000 tonnes of CO₂e¹ per year or more, fuel suppliers/distributors, and electricity importers
- Voluntary participants: commercial and/or industrial customers who emit between 10,000 and 25,000 tonnes of CO₂e per year and who have chosen to participate in the program
- Market participants: participants who choose to trade in the carbon market but have no compliance obligation

The Utilities are mandatory participants.

The Ontario government has established provincial GHG emissions caps for the years 2020, 2030 and 2050 that underpin the Cap and Trade program. These caps put a limit on how many tonnes of GHG emissions that businesses, institutions and households can emit in Ontario. The government's cap declines every year to encourage a province-wide decrease in GHG emissions over time.

The government translates the cap into emissions units called "allowances". For every tonne of GHGs that can be emitted in a year under the cap, the government will sell or give away one allowance. Thus the allowances will serve as a carbon "budget" for Ontario. In order to comply with the Cap and Trade program, participants (including the Utilities) will have to have enough allowances and/or offset credits² (these two instruments are sometimes referred to collectively as emission units) to cover their emissions.

¹ CO₂e means carbon dioxide equivalent.

² An offset is a credit for a verified emission reduction from a source outside the Cap and Trade program. Like allowances, offset credits are an emission unit that can be used by covered participants to meet their cap and trade obligations.

Under Cap and Trade, participants have a certain amount of time in which to acquire all the emission units they need to cover their emissions. This period of time is called a compliance period.

On November 1 of the year following the end of each compliance period, all participants must surrender emissions units (allowances and offset credits) equal to their GHG emissions to the government (1 allowance or offset credit = 1 tonne of GHG emissions (CO₂e, carbon dioxide equivalent). Mandatory and voluntary participants that fail to submit their required emission units may be subject to the following consequences:

- The Minister may remove emission allowances and credits held in a participant's accounts;
- A participant with excess emissions not covered by emissions units is subject to a three-to-one penalty;
- A participant's holding account may be restricted; and,
- Continued shortfalls will have additional consequences.

Linking to California and Québec

Many of Ontario's Cap and Trade market rules align with the existing Québec-California Cap and Trade market, including:

- Offset credits will be limited to 8% of the participant's compliance obligation;
- The auction floor price will align with the Québec-California market; price is to increase annually at 5% plus inflation;
- Purchase limit to be set at 25% (maximum number of allowances a single participant can purchase at any one auction);
- Holding limit (number of available allowances that a participant can hold in its account at any one time) to be set by formula;
- Strategic reserve (allowances to be set aside in a reserve account) set at 5% of available allowances; sales to be held by province at set times to mitigate price spikes; and,
- Allowance banking (number of allowances that participant can hold between compliance periods) set by formula related to participant's total proportion of the overall cap.

The government has signalled its intention to "link" with California and Québec's cap and trade market in 2018. The linking of Ontario to this other market will allow mandatory and voluntary participants to meet their Cap and Trade obligations through the acquisition of emissions units from any of the three jurisdictions. The opportunity

to acquire emissions units from the other jurisdictions also provides Ontario participants with the ability to trade with participants in any of the three jurisdictions thus increasing their market opportunities.

2.1 Compliance Options

Participants will have a number of compliance options they can use to meet their obligations under Ontario’s Cap and Trade program. One set of compliance options are cap and trade-specific emissions units, described in Table 1 below.

The two main emissions units included in the Ontario *Cap and Trade Regulation* are allowances and offset credits. Allowances will be sold in the primary market directly by the government in quarterly auctions; via the government’s strategic reserve (the reserve sets aside 5% of allowances for each compliance period and divides these into three price tiers); and in the secondary and tertiary markets by participants, brokers, etc.

Offset credits are credits for GHG reductions achieved by activities outside of sectors directly covered by the Cap and Trade program. Offset projects must meet specific protocols and credits are expected to be available through government-approved (or government-run) offset registries, as well as through secondary and tertiary markets.

Cap and Trade participants must comply with the rules established by the *Climate Change Act* and the *Cap and Trade Regulation*, including limits on the use of offset credits and rules that deal with holding limits and purchase limits.

Table 1: Cap and Trade Emissions Units

Instrument	Market	Definition
Auction Allowances	Primary	Available through government administered auctions. Clearing price risk in competitive auction with some predictability
Allowance Bi-laterals	Secondary	Negotiated price for government sourced allowances between counter-parties, improves price certainty, higher availability risk
Allowance Futures	Primary	Standardized futures contract traded on an exchange by a broker with delivery dates, volume and terms and margin call requirements

Allowance Forwards	Secondary	Customized contract traded over the counter (OTC) that includes both market and credit risk
Offsets	Secondary	Compliance-grade instrument generated by emission reduction activities outside of regulated scope. Must be verified
Offsets Futures	Secondary/ Tertiary	Exchange traded futures contracts for offsets
Allowance Derivatives	Tertiary	Allowance derivative products offering the right to buy or sell an allowance for a set price during a future period (options) and swaps

In addition to procuring allowances and offset credits, Utilities can undertake GHG abatement measures to meet their compliance obligations. Some examples are described in Table 2 below.

Table 2: Potential GHG Abatement Measures

Measure	Applicability to Utilities
Customer abatement activities	Customer emissions
Renewable energy and fuel switching	Facility and customer emissions
New technologies	Facility and customer emissions
Building retrofits	Facility and customer emissions
Measures to mitigate and reduce fugitive emissions	Facility emissions
Biogas, renewable natural gas	Facility and customer emissions

3 Guiding Principles for Assessment of Costs

The OEB expects Utilities to develop Compliance Plans that outline how they will meet their obligations under Ontario's *Climate Change Act* and *Cap and Trade Regulation*. The OEB will review these Plans for prudence and reasonableness in meeting Cap and Trade obligations with a view to determining the appropriate costs to be recovered from natural gas customers in rates.

The OEB will not approve the Utilities' Compliance Plans. Utilities are responsible for deciding on the exact makeup of activities to be included in their Plans, how best to prioritize and pace investments in Cap and Trade compliance options and abatement activities, and how and when to participate in the market.

The Regulatory Framework describes how the OEB intends to assess the Utilities' Compliance Plans for cost-effectiveness and reasonableness and describes the information to be included in a Plan to assist the OEB in assessing and monitoring the Plans for prudence and protecting the interests of customers.

The OEB review of Utility Compliance Plans will be informed by a number of guiding principles intended to encourage optimal decision-making by Utilities and appropriate rate protection for customers. This principle-based approach will provide the Utilities the flexibility to develop compliance strategies that are responsive to changing market and volume conditions and that best suit their operations and customer base.

3.1 The Guiding Principles

The OEB's assessment of the reasonableness of Compliance Plan costs for recovery in rates will be guided by the following principles:

- **Cost-effectiveness:** cap and trade activities are optimized for economic efficiency and risk management
- **Rate Predictability:** customers have just and reasonable, and predictable rates resulting from the impact of the Utilities' cap and trade activities
- **Cost Recovery:** prudently incurred costs related to cap and trade activities are recovered from customers as a cost pass-through

- **Transparency:** cap and trade activities and costs related to them are transparent and well documented to inform the OEB's assessment, while maintaining market integrity
- **Flexibility:** cap and trade strategies are flexible and can adapt to changing market conditions and utility-specific characteristics; the Regulatory Framework may evolve as the market matures and experience is gained
- **Continuous Improvement:** Utilities demonstrate continuous improvement in the processes and practices they use to meet their compliance obligations cost effectively

The OEB is of the view that a principle-based framework will provide Utilities and customers with consistency and predictability in the OEB's assessment of the cost consequences of the Utilities' Compliance Plans. Consumer groups and one environmental group generally supported the proposed guiding principles. Two natural gas utilities suggested that the guiding principles should align with their natural gas supply principles. The utilities stated that the most important principle should be compliance with the *Climate Change Act* as that is the obligation they have to adhere to through their Compliance Plans and drives the costs.

As stated previously, the Utilities will be expected to develop Compliance Plans that describe how they intend to meet their obligations under the *Climate Change Act*. The OEB's role is to assess the Plans for reasonableness and cost-effectiveness in order to approve the cost consequences of those Plans. Assessing a plan based on simply meeting the Utility's GHG compliance obligation alone is too low a threshold in the OEB's view. Greater rigour is required to ensure customer protection. The OEB is of the view that all rate-regulated natural gas utilities should be treated in the same way and as such the Regulatory Framework does not provide for any difference in treatment between the Utilities.

The guiding principles outlined above will ensure that the Utilities develop Compliance Plans that support the government's policy in a cost-effective manner. The principles will also encourage flexibility and optimal decision making when the Utilities are developing a portfolio of cap and trade compliance activities. It is expected that the Utilities' Plans will continuously improve over time as experience is gained. The OEB believes that ongoing monitoring will promote superior performance by the Utilities, and afford appropriate consumer protection.

4 Confidentiality of Cap and Trade Information

The OEB deals with various categories of material over which confidentiality is claimed from time to time, and has had *Rules of Practice and Procedure* (Rules) and a *Practice Direction on Confidential Filings* (Practice Direction) in place for many years.

As a general rule, the OEB places materials it receives in the course of the exercise of its authority under the *Ontario Energy Board Act, 1998* and other legislation on the public record so that all interested parties can have equal access to those materials. The approach that underlies the Rules and the Practice Direction on the treatment of confidential information is that the placing of materials on the public record is the rule, and confidentiality is the exception. The onus is on the person requesting confidentiality to demonstrate to the satisfaction of the OEB that confidential treatment is warranted in any given case.

The *Climate Change Act* includes limitations on the disclosure of certain information, that must be respected despite the OEB's general approach to confidentiality. These limitations are reflected in this Regulatory Framework.

Utilities are expected to file Cap and Trade information in a number of OEB proceedings, including:

- Proceedings to review the costs associated with the Utilities' Compliance Plans and approve the costs for recovery through rates;
- Monitoring reports filed annually by the Utilities;
- Recalibration and true-up process for OEB approval of recovery of Cap and Trade costs; and
- Other OEB proceedings in which Cap and Trade information may be disclosed to the OEB, including the Utilities' cost of service applications.

The OEB recognizes that the Ontario Cap and Trade market is still nascent, and that the protocols and procedures surrounding confidential information must evolve as the market matures. The OEB believes that, in the early stages of the market's development, the appropriate approach must not only comply with the *Climate Change Act* and associated regulations, it should also be cautious and have regard to market integrity in order to protect customers from undue costs while still making appropriate information publicly available where possible.

The OEB has determined that, with the exception of the Auction Confidential, Market Sensitive and some commercial information (as described below), other information

pertaining to a Utility’s Cap and Trade costs should be provided in public filings, in aggregated form where appropriate.

There will be two (2) categories of strictly confidential Cap and Trade information as follows:

Classification of Confidential Information	Specifics and Examples of Confidential Protocols for Disclosure	Protocols for Confidential Treatment and Disclosure
Auction Confidential	Information related to participation at auctions for emissions allowances that is prohibited from disclosure by s. 32 of the <i>Climate Change Act</i> (except to ‘prescribed persons’), i.e., information relating to a person’s participation in an auction, including the person’s identity, bidding strategy, the amount of the bids for a specified quantity of emissions allowances and the financial information provided to the (MOECC) Director in connection with the auction.	OEB Filing Guidelines will provide that Auction Confidential Information will be treated as strictly confidential and only be reviewed by the OEB. The OEB will provide a non-confidential summary report of the information for the public record. The Utility must identify in its filing with the OEB information that is Auction Confidential and file redacted versions of such documents for the public record.
Market Sensitive	Information relating to transactions of emissions units on secondary or tertiary markets or offset credits. Information relating to compliance instruments used by a Utility to meet its GHG obligations.	OEB Filing Guidelines will provide that Market Sensitive Information will be treated as strictly confidential and only be reviewed by the OEB. The OEB will provide a non-confidential summary report of the information for the public record. The Utility must identify in its filing with the OEB information that is Market Sensitive and file redacted versions of such documents for the public record.

The OEB’s Filing Guidelines for Cap and Trade (set out in Appendix A) indicates certain Auction Confidential and Market Sensitive information that will be treated as strictly confidential. Utilities should be guided by the description of those two categories of information when filing their Plans and associated applications to identify other strictly confidential information. Although the Practice Direction does not require a party to request confidential treatment of information designated as confidential in filing guidelines or forms, for greater certainty the OEB will require Utilities to clearly identify information for which they seek strictly confidential designation.³

³ Citations and supplementary information have been included as endnotes in Appendix C.

In addition, there may be some types of commercial information for which a Utility may wish to claim confidentiality which will be examined on a case-by-case basis. The OEB will determine whether access to such information may be allowed to third parties in accordance with the provisions of the Rules and Practice Direction.

The OEB will review the effectiveness of the rules respecting confidentiality of filings related to the Utilities' Compliance Plans and Cap and Trade activity as part of its planned review of the Regulatory Framework, prior to the end of the first compliance period.

4.1 Auction Confidential Information

The OEB has decided that Auction Confidential Information will remain strictly confidential even after the auction or sale is concluded.

The *Climate Change Act* prohibits a person from disclosing whether or not the person is participating in an auction or "any other information relating to the person's participation in an auction, including the person's identity, bidding strategy, the amount of the person's bids for a specified quantity of emissions allowances and the financial information provided to the Director in connection with the auction". Disclosure of this information may only be made as 'prescribed'.ⁱⁱ Section 65 of the *Cap and Trade Regulation* specifies that the OEB is a 'prescribed' person to whom Auction Confidential Information may be disclosed.

In the Discussion Paper, staff proposed that the OEB adopt a procedure where Auction Confidential Information is only reviewed by OEB staff and the OEB panel in a proceeding, all of whom are subject to a statutory duty of confidentiality, both during and after employment as Ontario public servants.ⁱⁱⁱ

The Discussion Paper outlined a process for reviewing Auction Confidential Information which is akin to the OEB's inspection / audit process under Part VII of the *Ontario Energy Board Act, 1998* (OEB Act) whereby OEB staff would review the Auction Confidential Information and provide a non-confidential report as to the reasonableness of the Cap and Trade costs incurred by a Utility. That report would be placed on the public record.^{iv} Unlike the potential exceptions to confidentiality provided for in the inspection / audit process, there would be no exceptions with respect to Auction Confidential Information unless provided for in the *Climate Change Act* or the *Cap and Trade Regulation*.

Some stakeholders commented that the statutory prohibition on disclosure of Auction Confidential Information only pertains to future-looking information about a specific auction and that there are no restrictions on disclosure when the auction is over. Utilities commented that disclosure of Auction Confidential Information, even after conclusion of an auction, could negatively impact the Utilities and their customers. Utility comments highlighted the need for strictly confidential treatment of any information that could reveal the Utilities' purchasing strategies since even inadvertent disclosure to other carbon procurement parties can negatively impact a Utility and its customers. Utilities pointed out that they will be competing for compliance instruments with unregulated entities and parties that are in the market purely for profit and that the Utilities' procurement strategies should remain confidential.

The OEB notes that following an auction, the Minister of Environment and Climate Change will make publicly available a summary of each auction or sale.^v There is no indication in the legislative framework that disclosure of specific auction information is permitted even after conclusion of the auction. Accordingly, Auction Confidential Information will remain strictly confidential even after the auction or sale is concluded. Auction Confidential Information will be reviewed only by the OEB in a particular proceeding and the OEB will provide a non-confidential summary of the Auction Confidential Information for the public record.

The non-confidential summary and opinion, combined with the Minister's auction summary report as well as the non-confidential aggregated information filed by Utilities in support of their Cap and Trade costs will provide sufficient transparency and protection of the public interest. As the market matures and better understanding is developed of public and non-public information, the OEB's approach may be revised to allow access to parties beyond the OEB.

4.2 Market Sensitive Information

The OEB has decided that Market Sensitive Information should not be disclosed in OEB proceedings to anyone other than OEB staff and OEB panels if that information is not publicly available and could result in 'selective disclosure', tipping and trading on non-public information, which is prohibited in financial markets, or have an impact on a Utility's future market activities.

The Discussion Paper considered the treatment of information that may be filed with the OEB related to a Utility's Compliance Plans involving primary market activity, other than auctions, as well as secondary and tertiary market activity (including bilateral agreements and other transactions and instruments). In the Discussion Paper, it was

proposed that such Market Sensitive information should be treated as confidential as it could have an impact on cap and trade markets if disclosed and such disclosure could be contrary to sections 28(5) and (6) of the *Climate Change Act* which prohibit trading and ‘tipping’ of generally non-disclosed information.^{vi} Staff also proposed that Market Sensitive Information follow the same protocol as Auction Confidential Information and that it be reviewed only by OEB staff and OEB panels in proceedings relating to Cap and Trade costs.

Some stakeholders commented that the legislation prohibits disclosure of information in secondary and tertiary markets that is not otherwise available in order to prevent market manipulation, ‘tipping’ or gaming, but that there is no legislative prohibition on the *public* disclosure of such information. Some comments argued that any protocols for non-disclosure are warranted only for information that is legitimately commercially or strategically sensitive. Some stakeholders argued that as carbon markets are financial markets, it may be appropriate for the OEB to consider rules and policies applicable to confidential information in the financial markets.

The OEB takes note of the stakeholder comments and has decided that Market Sensitive Information should not be disclosed in OEB proceedings to anyone outside the OEB if that information is not publicly available. The OEB notes that certain information about a utility’s past market activities which would have been Auction Confidential and/or Market Sensitive Information at the time that the transactions were carried out could, even after the transactions are concluded, have an impact on future activities in carbon markets. Hence, information about past trading activities which could reveal bidding strategies in future market activities and compromise the integrity of the markets contrary to the provisions of the *Climate Change Act* will be treated as Market Sensitive Information. The OEB considers this approach consistent with the long-term perspective that Utilities are encouraged to take when preparing their Compliance Plans and, given that the Cap and Trade market can be expected to involve ongoing and repeat transactions, information pertaining to past transactions can have impacts on future market activities and should therefore be treated as strictly confidential.

4.3 Other Confidential Commercial Information

The OEB notes that there may be other types of Cap and Trade information which does not fall within the Auction Confidential or Market Sensitive categories which could in appropriate circumstances be considered to be commercially and strategically sensitive, the disclosure of which could potentially negatively impact a Utility’s

competitive position and its customers. If a Utility seeks confidential treatment for information which it views as sensitive or strategic commercial information, it should make the request in accordance with the OEB's existing Rules and Practice Direction.^{vii}

4.4 Public Information

A considerable amount of information will be publicly available, including the aggregated information filed by the Utilities on their Cap and Trade activities, the Minister's report on conclusion of an auction, as well as carbon price forecasts which will be derived from a public exchange for short-term pricing and the longer-term pricing which will be provided by the OEB.

With the exception of the Auction Confidential and Market Sensitive and any commercial information that is determined to be confidential, as discussed above, other information pertaining to the Utilities' Cap and Trade costs should be provided in public filings, in aggregated form where appropriate. Such information would include, for example:

- Volume forecasts for facility-related obligations, customer-related obligations, LFEs and voluntary participants;
- Forecasts of GHG emissions;
- Forecasted costs per tonne of GHG;
- Total cost of the compliance portfolio over the compliance period and cost per year;
- Administrative costs over the compliance period and cost per year;
- Financing costs;
- Cost of abatement activities, per customer and / or per tonne of GHG;
- Proposed capital investments; and
- Information that is otherwise publicly available and reported by the Utilities in a non-confidential context.

5 Assessment of Costs

Under Ontario's Cap and Trade program, the "point of regulation" for natural gas is the Utilities. This means that each of the Utilities will have Cap and Trade compliance obligations for their facility-related emissions and customer-related emissions.

The OEB expects that Utilities will develop Compliance Plans that are designed to meet their obligations as prescribed by the *Climate Change Act* and the *Cap and Trade Regulation*. The Plans should outline the strategies and activities proposed and associated costs.

As the rates charged by natural gas utilities are regulated by the OEB, the OEB will assess the Utilities' Compliance Plans for cost-effectiveness, reasonableness and optimization, and ultimately to determine whether to approve the associated Cap and Trade costs for recovery from customers. Cost recovery is discussed in section 6.

In order to undertake its assessment effectively, the OEB will require robust and detailed information in support of Utility requests for recovery of costs associated with their compliance activities. This section identifies the details of the assessment process the OEB will undertake when it considers a Utility's Compliance Plans, as well as specific information requirements that will inform the OEB's review. The assessment of Plans will include the following:

1. Compliance Plan Frequency and Duration
2. Requirements for Emissions and Carbon Costs Forecasts
3. Assessment of Cost-Effectiveness, Reasonableness and Optimization
4. Treatment of Longer term Investments

5.1 Compliance Plan Frequency and Duration

As described in section 1, the Cap and Trade program establishes an initial four-year compliance period (2017-2020) to be followed by three-year compliance periods. For the purposes of assessing the cost consequences of the Utilities' Cap and Trade activities, the OEB is of the view that Compliance Plans should cover the entire compliance period. Following the first compliance period (2017-2020), the OEB expects the Utilities to develop and file three-year plans for each subsequent compliance period (2021-2023, 2024-2026, etc.).

In the OEB's view, three-year plans will support a longer term and more strategic approach by Utilities in meeting their compliance obligations under Cap and Trade, and will support optimization and increase rate predictability. Utilities will also have greater flexibility to meet their GHG obligations and respond to market changes with appropriate OEB oversight. Three-year Compliance Plans will reduce a Utility's regulatory risk with respect to Plan implementation and recovery of prudently incurred costs.

First Compliance Period

To provide the Utilities with the opportunity to gain experience with Cap and Trade, the OEB will accept plans of the following duration for the first compliance period (2017-2020):

- One annual Compliance Plan for 2017 followed by a three-year plan for the remainder of the first compliance period (2018-2020); or
- Annual Compliance Plans for each of the first two years (2017 and 2018), followed by a two-year plan for the remainder of the first compliance period (2018-2020).

Giving the Utilities this flexibility in the first compliance period recognizes the approaching January 2017 timeline for Cap and Trade, and will allow a Utility enough time to gain experience before developing a more comprehensive, longer term plan. The OEB also recognizes that in 2017 there will be an Ontario-only Cap and Trade market while in 2018 the market may be linked with California and Québec, which could represent a substantive change for the Utilities in their options for addressing compliance.

Utilities will also be required to submit annual Compliance Plan updates for review. The OEB's annual review process, as discussed in section 6, will focus on any updates to the plan based on new forecasts and market developments.

The Discussion Paper proposed that, with the exception of the first year of Cap and Trade (2017), a Utility should prepare three-year Compliance Plans to match the length of the compliance periods under the Cap and Trade program. Most stakeholders who commented on this topic agreed with the approach in the Discussion Paper. Others, including one Utility, suggested that the Utility prepare annual plans for the first few years, or for the duration of the first compliance period, as there is still uncertainty regarding the Cap and Trade program and the market for allowances which makes longer term-planning difficult in the near term.

5.2 Requirements for Emissions and Carbon Costs Forecasts

The OEB will require detailed objective analysis of the costs of all forms of compliance activities to effectively assess the cost consequences of the Utilities' Compliance Plans. To support its assessment of these costs the OEB will rely on the following forecasts:

- Volume forecasts of the Utilities' gas deliveries;
- GHG emissions forecasts;
- Annual and Long Term Carbon price forecasts; and,
- Marginal Abatement Cost Curves (MACC).

Utilities will be responsible for preparing forecasts of volume, GHG emissions, and annual carbon prices. The OEB will provide the long-term (10-year) carbon price forecasts and Marginal Abatement Cost Curves that will underpin its assessment.

Volume forecasting is an activity the Utilities already undertake. The GHG emissions and annual price of carbon forecasts are new forecasts that the Utilities will need to prepare in order to develop their Compliance Plans. The forecasts prepared by the Utilities must align with the duration of the Compliance Plans they have prepared in accordance with section 5.1.

5.2.1 Forecasts of Natural Gas Delivery Volumes

Forecasts of the volume of natural gas use are the key input to forecasting GHG emissions. As mentioned, under the *Climate Change Act*, the Utilities are responsible for the GHG emissions of their customers as well as for their own facilities and operations. A Utility will have to prepare volume forecasts for both its customer-related usage as well as the natural gas consumed in operating its own facilities, in order to calculate total natural gas consumption and associated emissions. The Utilities will use these forecasts to inform the development of their Compliance Plans (in terms of the forecasting of GHG emissions) and for the purpose of cost allocation and rate-setting (as described in section 6).

The customer-related volume forecast should exclude LFEs and voluntary participants who will be directly responsible for their own GHG emissions. Facility-related volume forecasts will be based on, amongst other things, the Utilities' own natural gas

consumption forecasts related to their distribution, transmission and storage operations (including unaccounted for gas losses, etc.).

The Utilities already prepare volume (or throughput) forecasts for the purpose of rate-setting, and as such, the OEB expects the Utilities to use their existing OEB-approved methodology when preparing forecasts for the purpose of Compliance Plans. This approach was suggested in the Discussion Paper, and the stakeholders generally agreed with this approach.

5.2.2 GHG Emissions Forecasts

Utilities will have to calculate a GHG emissions forecast for:

- Emissions related to customers' natural gas usage (i.e., customer-related GHG obligations), and
- Emissions related to the distribution, transmission and storage of natural gas, including process emissions, emissions from fugitive and leaked gas, and emissions from the Utilities' facilities and operations (i.e., facility-related GHG obligations).

GHG emissions forecasts should be prepared in accordance with the methodologies for calculating GHG emissions set out in Ontario Regulation 452/09 *Green House Gas Emissions Reporting* issued December 2015 and Ontario's Guideline for Greenhouse Gas Emissions Reporting, issued May 19, 2016. The OEB is of the view that these government-approved methodologies (i.e., formulae to calculate GHG emissions) should be used to forecast GHG emissions for the purpose of developing Compliance Plans as they will be relied upon for the purpose of determining the Utilities' compliance obligations.

As with the volume forecast, the Utilities will need to exclude GHG emissions of LFEs and voluntary participants to calculate the customer-related GHG obligations. Stakeholders were supportive of this approach.

5.2.3 Carbon Price Forecasts

For the purposes of assessing the cost-effectiveness of each of the Utilities' Compliance Plans, the OEB has determined that two carbon forecasts will be needed: an annual carbon price forecast and a long term (10-year) forecast. Utilities will be

expected to develop the annual carbon price forecast and the OEB will provide the long-term forecast.

Annual Carbon Price Forecasts

The OEB has determined that the Utilities should use the forward Intercontinental Exchange (ICE) average daily settlement price of a California Carbon Allowance for the purpose of forecasting the annual carbon price used in their Compliance Plans and any other regulatory filings.

The OEB has determined that the Utilities will set their annual carbon price forecast using the average of the ICE daily settlement prices of a California Carbon Allowance for each day of the forecast period for each month of the forecast year. The forecasting period should be 21 business days and should be as close as possible to the forecast year. See example in Appendix B.

In the OEB's view, using a consistent benchmark like the ICE will facilitate the OEB's review of costs and ensure consistency across all Utilities. The ICE is a large, liquid and public market exchange. The OEB notes that the ICE is relied upon by the California Public Utilities Commission to determine its annual proxy price of carbon.

Use of the ICE was recommended in the Discussion Paper. Stakeholders that commented agreed with the proposal.

Long-Term Carbon Price Forecast

The OEB has determined that for the purpose of undertaking assessment of longer term costs, it will provide a long-term (10-year) carbon price forecast. This long-term forecast will be a consensus forecast of long-term prices, to be updated annually.

The purpose of the *Climate Change Act* is to reduce Ontario's GHG emissions. The OEB recognizes that abatement programs are a key part of that effort. Abatement programs will in some cases require longer-term investments in order to achieve anticipated emissions reductions. A long-term forecast of carbon prices is needed to effectively assess the reasonableness of such investments.

The OEB will use this forecast to evaluate the cost-effectiveness of multi-year abatement programs and any longer-term investments that Utilities propose as part of a Compliance Plan. The OEB will publish its 10-year price forecast every year in May, to support the Utilities' annual filings and to ensure that the forecasts have taken into

consideration the results of the previous year's auctions. It will be possible to extrapolate the five-year cost of carbon from the 10-year forecast

Stakeholders that commented on this issue agreed that the OEB should be responsible for providing the long-term carbon price forecast.

5.2.4 Marginal Abatement Cost Curve (MACC)

The OEB has determined that it will develop a province-wide, generic MACC for the Utilities to use as an input into the development of their Compliance Plans and as a key input to the OEB's assessment of the cost consequences of the Plans.

The MACC will provide the Utilities and the OEB with the range of all possible compliance options along a spectrum of costs. It is an essential input that the OEB expects all Utilities to use in developing their Compliance Plans. A single, generic province-wide MACC (OEB MACC), used by all Utilities, will ensure a standard description of compliance costs for the purpose of the OEB's assessment of the Compliance Plans.

The OEB MACC and the Utilities' description of their compliance strategy and activities will allow the OEB to assess the Compliance Plans for evidence of the Utilities' cost-effective optimization of compliance instruments.

The timeframe for the OEB MACC will be 10 years, to align with the long-term carbon price forecast. The OEB will develop a MACC for mid-2017 and will update the MACC at the beginning of each subsequent three-year Compliance Plan term.

Stakeholders were supportive of the idea of developing a single MACC to be used by all Utilities. Stakeholder preference was for the OEB to develop the MACC. The Utilities suggested that the MACC supporting their Compliance Plans should be developed by each Utility to reflect its specific considerations.

The OEB understands that a Utility may choose to develop its own, company-specific MACC to inform the development of its Compliance Plan however, the OEB will rely on the OEB MACC as its principal tool for assessing Utilities' selection of compliance options and resulting costs consequences.

5.3 Approach to Assessment of Cost Implications of the Utilities' Compliance Plans

Consistent with the Regulatory Framework's six guiding principles discussed in Section 3, in determining whether the cost consequences of the Utilities' Compliance Plans are cost-effective, optimized and reasonable, the OEB will consider the following:

1. whether a Utility has engaged in strategic decision-making and risk mitigation, resulting in a Compliance Plan that is as cost-effective as possible in reducing its facility-related and customer-related GHG emissions, and whether the Utility has considered a diversity (portfolio) of compliance options;
2. whether a Utility has selected GHG abatement activities and investments that, to the extent possible, align with other broad investment requirements and priorities of the Utility in order to extract the maximum value from the activity or investment; and,
3. whether the Compliance Plans are sufficiently flexible to adapt to variability in volume, changes in market prices, market dynamics and other sources of risk thereby providing for greater rate predictability as well as mitigating the risk to customers of changes in the Cap and Trade market.

5.3.1 Assessment of Cost-Effectiveness and Optimization

Inherent in the OEB's review of cost-effectiveness and reasonableness is an assessment of whether Compliance Plans reflect optimized decision-making. This includes:

- A consideration of a diversity of compliance options;
- Risk mitigation;
- Whether a Utility has approached its compliance strategy in an integrated manner that extracts maximum value from commitments that integrate multiple benefits; and,
- Whether a Utility has demonstrated flexibility to adapt to changes.

The OEB believes that assessing the Utilities' plans through this lens will lead to cost-effectiveness and greater rate predictability, and will reduce the costs and risk to customers.

To carry out this assessment, the OEB will expect robust and thorough information from the Utilities. The OEB will want to see information from the Utilities that demonstrates they have undertaken a detailed analysis which supports their choice of compliance options, including use of the OEB MACC to pace and prioritize their investments.

Most stakeholders that commented on the issue of Compliance Plan assessment were generally supportive of the OEB's approach. Some environmental groups felt that the cost-effectiveness test should be based on total societal costs and benefits (TRC [Total Resource Cost] or SCT [Societal Cost Test]), and that the OEB should require Utilities to undertake abatement where it is less costly than the procurement of allowances.

Given the newness of the Cap and Trade program the OEB considers it premature to apply the TRC or SCT to the Utilities' Compliance Plans at this time. The OEB will consider the use of additional tests such as the TRC or SCT after gaining experience with the assessment of Compliance Plans.

The OEB's approach to assessing the cost-effectiveness and reasonableness of Compliance Plans is discussed below.

5.3.1.1 Compliance option analysis and optimization of decision-making

The OEB's assessment will require a general understanding of the Utilities' approach to compliance. The OEB expects a Utility to provide an overview of its strategy, including an outline of the activities that it proposes to take to meet its compliance obligations (such as procurement of allowances and offset credits, GHG abatement programs for natural gas customers, and GHG abatement and mitigation activities for the Utility's own facilities and operations, and the rationale behind their selection of compliance actions and activities.

As part of its assessment of cost-effectiveness and reasonableness, the OEB will assess whether the Utilities effectively used the OEB MACC, their forecasts, and any other inputs to prioritize and select the compliance instruments and activities they have decided to include in their Compliance Portfolio.

The OEB will use the information provided by the Utilities to assess whether Compliance Plans reflect optimized and strategic decision-making, including consideration of a diversity of compliance instruments. The OEB will also use the

information provided by the Utilities to assess whether a Utility has selected investments in GHG abatement activities⁴ that, to the extent possible, align with other general investment needs and priorities of the Utility in order to extract maximum value from any GHG abatement activities.

The OEB recognizes that although some longer-term investments in GHG abatement may be more expensive than the price of emissions units in any given year, there may be strategic value in investments that decrease emissions over the longer term. For any activities included in the Compliance Plans that are more expensive per tonne of CO₂e than the annual carbon forecast price, the Utilities should provide a qualitative and quantitative description of the strategic value in these investments (e.g., long-term considerations related to GHG mitigation and the increasing price of emissions units in the longer term).

The OEB also recognizes that in any given year, a Utility may develop a Compliance Plan in which the only activity proposed is the procurement of allowances (and offset credits), if the Utility has determined that this is the most cost-effective and reasonable approach.

The implementation of a Cap and Trade program is a new activity for the Utilities and will require processes for ensuring that any procurement and trading decisions related to carbon emissions units are governed appropriately, similar to activity related to gas supply acquisitions. For the OEB to properly assess whether the Utilities' Compliance Plans are cost-effective and reasonable it will be important to understand how the Utilities have structured their decision-making and ensured they have adequate resources to manage the implementation of the Plan.

5.3.1.2 Performance Metrics and Cost Information

The OEB's assessment of cost-effectiveness and reasonableness will include a consideration of metrics and cost information to be provided by the Utilities. The OEB must assess the cost effectiveness of the Utilities' compliance activities in meeting their emission reduction obligations for customers and their own facilities. That assessment will include a consideration of objective and independent analysis of Utilities' Compliance Plan implementation performance and costs.

⁴ The customer-related GHG abatement activities must be incremental to the Utilities' 2015-2020 multi-year DSM plans (EB-2015-0029/EB-2015-0049).

The metrics and cost information will allow the OEB to assess whether the Utilities have considered a diversity of compliance options and their costs, and whether the Utilities have selected investments in GHG abatement activities that are cost-effective and extract maximum value. The OEB will rely on the performance metrics in the monitoring of the Utilities' activities to ensure continuous improvement in the planning and actions taken to achieve compliance, and the achievement of the government's objectives under the *Climate Change Act*.

Performance Metrics

The OEB will rely on performance benchmarks for the purpose of assessing forecast costs of Compliance Plans. Performance benchmarks will provide objective measures of the Utilities' proposed compliance activities. To assess the cost effectiveness of the Utilities' Compliance Plans, the OEB will require a Utility to calculate and provide key performance metrics, including cost per tonne (\$/tonne) of each compliance instrument or activity and a comparison of costs of investing in GHG abatement activities versus procuring emissions units. The OEB MACC will establish benchmarks for the cost per tonne, as will the results of the allowance auctions, the annual and long-term carbon price forecasts and other carbon market information.

A few stakeholders suggested adding additional metrics, such as a cost per customer, or undertaking further work to develop metrics given the lack of experience with Cap and Trade programs. The metrics that the OEB will use for the assessment of the Utilities' Compliance Plans are intended to measure both cost-effectiveness and reasonableness. The assessment will not be based on an upper limit of costs as would be the case with a cost per customer metric. Rather, because compliance is an obligation for the Utilities, the assessment will need to focus on the most cost-effective approach. This does not mean that the OEB will not consider customer bill impacts, only that the implementation of Cap and Trade cannot be tied to a specific cost per customer. In many cases the costs of the Compliance Plans will be largely dependent on prices in the Cap and Trade market and the cost of abatement opportunities.

With experience reviewing Compliance Plans, and through the monitoring process, there will be an opportunity to identify new metrics that may be useful in the assessment of Utilities' requests for cost recovery. As discussed in Section 8, the OEB intends to establish a working group that will consider, among other things, the need for and design of potential new metrics for evaluating the Utilities' Plans and performance.

Cost Information

Cost information about the compliance options the Utilities propose to use to meet their obligations will allow the OEB to assess a Utility's approach to developing Compliance Plans in a way that is cost-effective and reasonable and protective of the interests of customers. The kinds of information the OEB will need to obtain in order to undertake this assessment include descriptions of the costs of each compliance option, administrative costs, and financing costs.

To benchmark annual Utility costs, the OEB will use the ICE as an annual price forecast for annual compliance activities, and the OEB's 10-year carbon price forecast for long-term activities. These forecasts will provide an independent and objective basis for the assessment of the Utilities' plans for acquisition of allowances and other market based options. The OEB will also benchmark a Utility's Compliance Plan costs against the OEB MACC. The MACC provides the most comprehensive tool for assessment of cost-effectiveness because it identifies the effective cost of the full range of compliance options.

The OEB recognizes that the information necessary for its assessment of costs and performance is likely to include market and commercially sensitive information that will be subject to confidentiality. The treatment of information related to the Utilities' auction and market activities has been addressed in section 4 on confidentiality.

5.3.2 Risk Mitigation

In order to assess the cost consequences of Utilities' Compliance Plans the OEB must have a good understanding of the Utilities approach to risk identification, management and minimization. Understanding the risks that have been considered by a Utility in developing their Compliance Plans will provide the OEB with information to assess the potential for the Plans to address changes in costs and provide for greater rate predictability.

At a minimum, the OEB believes that risk identification should address the following categories of risks inherent in Cap and Trade:

- Volume variability;
- Allowance price variability (including foreign exchange risk);
- Emissions unit availability (i.e., allowances and offset credits);
- Market risk;
- Non-compliance; and,

- Any other risks identified by the Utilities.

The OEB will review the Utilities' risk management strategies to assess whether a Compliance Plan has appropriately considered risks and includes the flexibility needed to address them. Analysis developed by the Utility that includes high, medium and low risk scenarios for each of the above risks will assist the OEB's assessment.

This approach was suggested in the Discussion Paper. The OEB received few comments on this approach, and the comments received were generally supportive.

For participants in Cap and Trade programs, there are a number ways to manage risk, including planning, trading on the secondary carbon market (OTC and exchanges) and potentially hedging (procuring forwards, futures, etc.). In the context of Cap and Trade, hedging means that participants could potentially mitigate their risks by entering into certain types of financial contracts.

While the OEB is not requiring a Utility to undertake hedging activities, Utilities will not be prevented from doing so. If a Utility decides that hedging is a cost-effective and optimal strategy to pursue in its Compliance Plan, the Utility should describe its hedging strategy, identify any potential risks and outline a plan that describes how these risks would be mitigated. The OEB will review the Utility's proposed hedging plans for cost-effectiveness, in accordance with the principles set out in the Regulatory Framework.

All stakeholders that commented on this issue, including the Utilities, were concerned with a Utility undertaking hedging activities at this time. Stakeholders cited an earlier OEB decision with respect to gas supply in which the OEB decided that costs for such activities would not be allowed for recovery in rates (EB-2007-0606). In its reasons for decision in that case, the OEB specifically referred to the developments in the natural gas supply market and was of the view that the hedging activity was not providing value to customers. The OEB does not believe the circumstances are the same in the developing Cap and Trade market and believes that there may be opportunities for customers to benefit from lower overall costs through financial hedging.

5.4 Treatment of longer term investments

Given that provisions in the *Climate Change Act* and *Cap and Trade Regulation* deal with a declining cap and increasing cost of allowances over time, the OEB considers longer-term planning to be a prudent and reasonable activity that the Utilities should

consider. As such, the OEB expects that a Utility's Compliance Plans will reflect long-term planning for GHG abatement beyond a single year or a single compliance period.

Longer term investments refer to investments and activities related to GHG mitigation that span three years or longer (i.e., at least as long as a single compliance period). This type of investment might include, for example, new technologies and new infrastructure. As part of its assessment of cost-effectiveness and reasonableness, the OEB will consider a Utility's long-term strategy for compliance.

The OEB expects a Utility's Compliance Plans to include a description of the longer-term strategy. The actual forecasts of planned capital expenditures related to any investments will, however, be dealt with in a Utility's regular rate application and/or any leave to construct cases. This means that although the Compliance Plans will highlight a Utility's thinking around long-term investments, the actual approval of costs and cost recovery will be dealt with like any other type of investment.

The OEB finds this approach to be most appropriate as the rationale behind capital expenditures and operating costs will be underpinned by a range of factors, only one of which is Cap and Trade. The OEB expects that, in the future, all planning and investment decisions should intrinsically consider GHG abatement as a part of capital investment decision-making, and that consideration of GHG abatement should be built in as part of a Utility's regular capital planning processes.

Most stakeholders who commented on this issue were supportive of this approach.

5.5 Treatment of New Business Activities

The OEB recognizes that the Utilities may be interested in pursuing new business activities that will result from the implementation of the Cap and Trade program in Ontario in order to take steps to reduce emissions and provide for new sources of revenues. The Undertakings between certain Utilities and the government restrict the business activities of the Utilities beyond distribution, transmission, storage and supply of natural gas. The Undertakings do, however, provide the OEB with the ability to permit the Utilities to undertake new businesses on a case-by-case basis.

The OEB is prepared to consider applications for approval to undertake new business activities on a case-by-case basis as it already does. The OEB will continue to rely on existing accounting policies for non-utility activities and the rules for affiliate relationships, as well as the Undertakings to provide appropriate regulatory treatment of any new business activity the Utilities propose.

5.6 Customer Abatement Programs and the Demand Side Management Framework

As part of the 2013 Long Term Energy Plan, the Minister of Energy, issued a Directive dated March 26, 2014, which directed the OEB to develop a DSM policy framework for natural gas distributors for the period January 2015 to December 2020. The OEB issued its multi-year Demand Side Management (DSM) framework (EB-2014-0134)⁵ on December 22, 2014, and subsequently approved 2015-2020 DSM Plans for two of the Utilities.

The DSM framework is designed to reduce natural gas consumption throughout Ontario, and includes the OEB's policies on all elements of the Utilities' DSM activities. Utility DSM Plans⁶ include annual targets and performance measurement tools related to the Utilities' DSM activities. The DSM framework also includes an OEB-led evaluation, measurement and verification ("EM&V") process to ensure that the Utilities are only rewarded for the natural gas savings directly attributable to the customer-funded DSM programs previously approved by the OEB.

The introduction of the Cap and Trade program requires Utilities to meet emissions reduction obligations, which creates the potential for significant overlap between existing DSM programs and future Compliance Plans.

Several stakeholders argued that customer-funded DSM has now been supplanted by the Cap and Trade program and therefore customer-funded DSM should be discontinued.

The OEB is confident that any potential overlap can be appropriately addressed through the robust EM&V process of the DSM framework. The DSM framework also includes a mid-term review provision (to be completed by June 1, 2018) that will provide an appropriate opportunity to assess the DSM framework in light of the Cap and Trade program.

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http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/search/rec&sm_udf10=eb-2014-0134&sortd1=rs_dateregistered&rows=200

⁶ <http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/513656/view/>

6 Cost Recovery

As discussed in section 5, the Compliance Plans will include procurement and investment strategies that the Utilities will use to meet their GHG compliance obligations. These compliance obligations will have costs associated with them. These costs will include:

- Facility-related obligations for facilities owned or operated by the Utilities for the purpose of distribution, transmission and storage of natural gas;
- Customer-related obligations for natural gas-fired generators, and residential, commercial and industrial customers who are not Large Final Emitters (LFEs) or voluntary participants; and,
- Administrative costs to meet their compliance obligations.

Customer-related and facility-related obligation costs will be incurred for emissions units procurement and for GHG abatement programs. The amount of these costs will be determined by the OEB through its assessment of each of the Utilities' Compliance Plans.

For emissions units procurement, the Utilities will be indifferent as to whether they are purchasing emissions units for their customers, their facilities or both. Consequently, the OEB will expect that the emissions units procurement costs will be a total cost that includes both customer-related and facility-related obligations.

For abatement programs, each of the Utilities will likely develop targeted programs for their residential, commercial and industrial customers. The Utilities will also develop programs for reducing emissions from their own facilities. The OEB will therefore expect to see a separation of customer-related and facility-related abatement program costs for the purpose of allocating costs to the appropriate customer classes, similar to DSM programs.

This section addresses the mechanisms for recovery of costs incurred by the Utilities to meet their Cap and Trade obligations including: cost causation, cost allocation, rate design and bill presentment, and the rate-setting approaches (including re-calibration and the true up process).

6.1 Cost Causation, Cost Allocation and Rate Design

The OEB has determined that customer-related obligation costs will be recovered from all customers except LFEs and voluntary participants, who are responsible for managing their own compliance obligation⁷.

Customer-related costs are driven by gas consumption and therefore should be allocated and recovered based on a customer's consumption. The OEB has determined that customer-related costs will be recovered through a volumetric (\$/m³) charge to applicable customers based on their consumption.

This charge will be separately identified on the Utility tariff sheet. Given that the costs will not be recovered from LFEs and voluntary participants, the tariff sheet will indicate it should be applied "as applicable" similar to other charges which are not uniformly applied to all customers in a given rate class.

A separate customer-related charge on the tariff sheet will assist natural gas-fired generators who bid into the market. It will also provide the information necessary for large gas users who may qualify as voluntary participants to make decisions as to whether they wish to become voluntary participants.

The OEB has determined that facility-related obligation costs will be recovered from all customers, as they are directly related to the delivery of natural gas to customers.

Facility-related costs will be allocated to rate classes based on consumption, given that the driver of GHG emissions is gas consumption. These costs will be recovered through a volumetric (\$/m³) charge based on consumption.

The charge for facility-related costs will also be separately identified on the Utility tariff sheet so that customers may easily identify these costs, and to facilitate tracking and updating as needed.

The OEB has determined that administrative costs relating to the implementation and ongoing operation of the Cap and Trade program will be allocated and recovered from all customers in the same manner as existing administrative costs. While the exact quantum of the administrative costs is not known at this time, based on research

⁷ OEB's early determination regarding billing of cap and trade related costs and customer outreach issued July 28, 2016.

conducted on experience in other jurisdictions, the OEB does not expect these costs to be sufficiently material to justify changing the allocation methodology.

Most stakeholders supported the proposal in the Discussion Paper that administrative costs should be recovered from all customers. Stakeholders representing large gas users commented that a portion of the administrative costs should not be borne by the LFEs or voluntary participants, as they would be incurring their own administrative costs to comply with the Cap and Trade program. These stakeholders also commented that the volume and associated GHG emissions from the LFEs and voluntary participants are not part of a Utility's compliance obligation and that, as a result, their liability for the Utility's administrative costs should be limited to those incurred in meeting facility-related GHG obligations only.

The OEB agrees that administrative costs will be incurred to support both facility-related and customer-related obligations. Based on the expectation that the costs will not likely be material, introducing a new approach to cost allocation would not be warranted. The OEB may revisit this approach in the future, based on experience with the Utilities' implementation of the Cap and Trade program and associated administrative costs.

6.2 Rate Setting

The OEB has decided that the customer-related and facility-related charges will be set based on the annual weighted average cost of the Utilities' proposed compliance options. This approach will align the charges with the costs of the proposed compliance options in the initial years, while mitigating volatility.

The OEB has determined that it will set annual charges to recover the approved costs of compliance for both customer-related obligations and facility-related obligations. To set these charges, the OEB has determined that it will use the Utility's annual weighted average costs of its proposed compliance options. This approach will ensure the matching of the Utilities' forecast costs with the charges to customers during the early years of the Cap and Trade program as the OEB, Utilities and customers gain experience with the program, while also providing stability in the charges. The process of setting the charges should be focused on changes in the forecasts of annual costs, unless the Utility has made material changes to its Compliance Plans.

The Discussion Paper identified two options for setting the annual customer-related and facilitated-rated charges: based on the Utilities' annual forecasts, or based on the Utilities' forecasts for the entire compliance period. Those stakeholders who

commented on this issue supported establishing charges based on the Utility's annual forecast of costs. Some stakeholders stated their preference for charges to be based on the weighted average cost of the Utility's proposed compliance options as this would provide transparency and would represent the best available forecasts. As discussed in section 5, the Utilities have indicated that they need to gain some experience in the marketplace before they can develop comprehensive and longer term Compliance Plans.

The OEB has determined that it would be premature at this time to adopt an approach where the charges are set based on the Utilities' forecasts for the entire compliance period. Setting the charges for recovery based on the weighted average cost of Utilities' compliance options for the particular rate year will provide for a matching of costs to volumes consumed by the Utilities' customers. This approach, in the OEB's view is appropriate during the early stages of the Cap and Trade program while the OEB, Utilities and stakeholders gain experience.

In the longer-term, a move to a compliance period-based approach to setting the charge will provide more predictability over the period, and support longer-term planning by Utilities. However, without sufficient information about the costs and activities over the compliance period, there would be a greater risk of variances and a need for regular adjustments, thus reducing the value of the approach.

The OEB recognizes that the Utilities may purchase future vintage allowances (these are emissions units that have an effective date in a future year) and other compliance options during the compliance period. For example, a utility could buy future vintage allowances in 2017 for the years 2018 – 2020 and also enter into other types of agreements to meet future GHG obligations. For the purposes of setting the annual charge, it is expected that the Utilities will align their costs with their annual consumption (and associated GHG emissions). This approach will match a Utility's revenue with its annual GHG emissions.

6.2.1 Re-Calibration and True-Up Processes

The OEB has decided that the re-calibration of the rates for customer-related and facility-related costs and any required true-ups should be done annually. Annual reviews will provide the opportunity to manage any volatility in the carbon markets and costs for compliance options against the desire for rate predictability.

The OEB is of the view that requiring more than annual reviews at this stage is not warranted given the newness of the Cap and Trade program and in particular the fact that for the initial year the program will be an Ontario only market. The OEB also

believes that deferral account balances should be apportioned between customer-related and facility-related obligations and, to avoid any market distortions, the balances should be administered on a prospective basis, not a retroactive basis.

Some stakeholders indicated that charges should be re-calibrated quarterly, similar to the QRAM process, to avoid large deferral accounts (e.g., due to rate exchange fluctuations). Other stakeholders supported an annual re-calibration and true-up. Some of these stakeholders suggested that at this time annual processes are appropriate but as experience is gained, the frequency may need to be reviewed. The OEB acknowledges the potential for large deferral account balances in relation to the customer-related obligation costs and will, if necessary, examine more frequent re-calibrations and true-ups in the Regulatory Framework review process. This does not preclude the Utilities or the OEB from determining, based on particular circumstances, that a more frequent review of the rates is needed.

6.3 Bill Presentment

The OEB has determined that costs incurred by the Utilities to meet their customer-related obligations and facility-related obligations will be included as part of the Delivery charge on the customer's bills⁸. This charge will be included for all customers other than LFEs and voluntary participants.

Under the *Climate Change Act*, Utilities are responsible for GHG emissions related to the operation of their equipment and facilities, in the same way any other LFE is required to comply with the legislation. These compliance costs, like the costs incurred by the Utilities to comply with other legislated environmental and health and safety regulations, are part of their on-going business activity and are appropriately reflected in the Delivery charge. Including the charges associated with Cap and Trade compliance in the Delivery charge means that these costs are being treated in the same manner as the OEB treats all other Utility costs of operation. Costs associated with the Cap and Trade program compliance are part of the Utilities' ongoing cost of providing natural gas service.

The Utilities are required by the *Climate Change Act* to be responsible for the GHG emissions related to all natural gas delivered on their distribution systems to

⁸ OEB's early determination regarding billing of cap and trade related costs and customer outreach, issued July 28, 2016.

customers other than LFEs or voluntary participants. In order to comply with this obligation the Utilities will incur costs. While these costs are not specifically tied to the operation of the gas distribution system, they are an on-going business obligation of a natural gas distributor under the provisions of the *Climate Change Act*.

Costs associated with meeting customers' emissions reduction requirements are similar to costs already incurred by Utilities in delivering DSM programs to customers. The costs of these DSM programs are considered part of the Utilities' ongoing business activities and are recovered in the Delivery charge. Costs associated with Cap and Trade compliance programs targeted at customer emissions are no different and will be treated in the same manner as the OEB treats all other utility costs of operation.

Most stakeholders, particularly Utilities and large commercial and industrial gas users argued for a separate line item for cap and trade on the basis of greater transparency and appropriate pricing signals to customers. Stakeholders representing large gas users, in particular LFEs, suggested that the charge should be separated to enable them to confirm that they had been charged the appropriate amounts, recognizing the different treatment of LFEs in relation to the recovery of customer-related obligation costs. Natural gas electricity generators also suggested the need for separate line items due to the need for information to support their bidding into the electricity market.

The OEB is requiring separate charges on the Utilities' tariffs so that large gas users (such as LFEs and voluntary participants) and gas-fired generators will have access to the information necessary to determine the amount they will be/have been charged in any billing period for both facility-related and customer-related costs. Further as discussed below the Utilities will be required to provide information on their websites and ensure that customers that require the information on the charges are provided that information.

For the vast majority of low volume customers, a separate line item will not provide any form of meaningful price signal. Customers other than voluntary participants cannot avoid the Cap and Trade program-related costs which will be borne by the Utilities and allocated to them. The most important driver of consumer behaviour, in the OEB's view, is total price. This has been borne out by research that the OEB has undertaken in the past in relation to consumers' response to electricity bills. This research showed that low volume customers are much more focused on the total amount owing on their bill than on individual line items

7 Customer Outreach and Information

The OEB considers appropriate customer outreach and information to be essential as customers need to understand the Cap and Trade program and the way in which the program will affect their bills.

Given the Utilities' direct and ongoing relationship with their customers, it is appropriate to rely on the Utilities to help inform customers about Cap and Trade and to do so in a manner that is appropriate to their customers. Accordingly, the OEB will not prescribe customer communications activities or messaging to be used by the Utilities at this time.

The OEB expects Utilities to provide information to customers that will achieve the following objectives:

- Improve customer awareness of the government's climate change actions including the Cap and Trade program;
- Provide an explanation of the Utilities' role in relation to emissions reduction, and the two types of emissions – facility-related and customer-related;
- Provide an understanding of the regulatory review and approval of Utility costs of compliance that will occur before customers will be charged; and,
- Provide customers with information on how to manage their GHG emissions and reduce their bills by reducing gas consumption.

The OEB expects the Utilities' communications strategies to include, at a minimum, information on their website, through their call centre and via bill inserts.

To ensure that all customers are aware of the Utilities' obligations and that compliance with them will have an impact on bills, the OEB proposes that Utilities include a reference to cap and trade costs in the description of the Delivery line that already appears on customer bills. The following provides an example of the type of statement that could be included on the bill:

“[Your utility] is taking steps to address climate change. As part of Ontario’s Cap and Trade program there will be costs related to carbon emissions that your utility emits in order to deliver gas to you as well as the cost of carbon emissions resulting from the natural gas consumed by you. The charges to recover these costs are included in the delivery line. Further information on this may be found at (website).”

Stakeholders that commented on this issue focused on the importance of educating customers in general. A number of customer groups, as well as two of the Utilities,

suggested that the Utilities have a better understanding of their customers and that they should manage their own communication strategies. Several stakeholders supported sharing bill inserts and/or key themes to be included in customer communications.

Stakeholders representing large gas users and gas-fired generators stated that they would require information so that they could make decisions about participation in the Cap and Trade program or for the purpose of bidding into electricity markets. The OEB agrees that it is important to provide customers with the information they need to better understand energy costs so that they can make appropriate choices about their energy use. The OEB will require the Utilities to separately identify charges associated with the recovery of Cap and Trade program compliance on their tariff sheets. While tariff sheets are available on the Utilities' websites, Utilities will also be expected to notify industrial and other large natural gas customers, along with gas-fired electricity generators, of the charges and any revisions to them.

As indicated earlier, the OEB intends to establish a working group to assist it in regards to specific elements of the implementation of the Regulatory Framework. The OEB sees merit in the working group providing input and advice on the ongoing approach to customer outreach and communications by the Utilities to support achievement of the OEB's objectives for outreach.

8 Monitoring and Reporting

The OEB will require annual monitoring and reporting by the Utilities on the results of their Cap and Trade activities and any changes to their Compliance Plans. Ongoing monitoring of the Utilities' costs and performance is essential to achieving the OEB's guiding principles for the Regulatory Framework. Monitoring will support the OEB's assessment of future plans for cost-effectiveness and identify whether the Utilities are improving their planning and delivering greater value to customers.

The performance metrics used to monitor the Utilities' Compliance Plans will be the same as the performance metrics used to assess those plans:

- Costs per tonne (\$/tonne) of each compliance instrument or activity;
- A comparison of costs of investing in GHG abatement activities versus procuring emission units over the short-term and long-term; and,
- Comparison of actuals with forecasts.

The OEB will also use the latest settlement price from the quarterly auctions to benchmark utility costs. It is important that the metrics used to monitor the plans are consistent for all Utilities as this will allow the OEB, ratepayer groups and other stakeholders to compare Plans as between the Utilities and over time.

The Utilities will file annual monitoring reports to align with the Utilities' annual review of Cap and Trade costs (as discussed in section 6). The OEB expects the Utilities to provide supporting documentation (including auction transactions, summaries of offsets and secondary market transactions, etc.) to allow the OEB to review the execution and performance of the Compliance Plans with regard to cost recovery.

The OEB notes that most stakeholders did not comment on the monitoring and reporting section in the Discussion Paper. The stakeholders that did comment were generally supportive of the Utilities filing annual monitoring reports with the OEB.

One ratepayer group suggested that the OEB establish a working group to define the reporting requirements and establish the metrics. The OEB has considered the suggestion of a working group and intends to establish one for the purpose of further refining metrics, but more importantly as a means to facilitate the monitoring and review of the Utilities' compliance activities and support the OEB's review of the Regulatory Framework during the initial Cap and Trade compliance period.

9 Implementation

The Cap and Trade Program will be implemented as of January 1, 2017. The OEB expects the Utilities to file applications with their initial Compliance Plans by November 15, 2016 in order for the OEB to set interim rates to allow for the recovery of Cap and Trade compliance costs. By ensuring rates are in place as January 1, 2017 the OEB expects to avoid any significant variances in the annual rates once it completes its assessment of the Compliance Plans.

The Filing Guidelines in Appendix A provide direction to the Utilities on the content of their applications. The Filing Guidelines should be read in conjunction with the Regulatory Framework to fully understand the intention behind the Guidelines.

The OEB intends to undertake a review of the Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities following the completion of both the assessments of plans and a review of results from at least two years. This review will be completed before the end of the first compliance period.

As discussed earlier, the OEB also intends to establish a working group to undertake further discussions on the metrics that should be relied upon for assessing and monitoring Compliance Plans, assist the OEB in assessing the effectiveness of the Regulatory Framework and further the development of effective customer communications. More information on the establishment of the working group will be provided in due course.

Appendix A: Filing Guidelines

Filing Guidelines for Natural Gas Utility Cap and Trade Compliance Plans

Introduction

These filing guidelines outline the minimum information necessary to be filed by natural gas utilities in order for the OEB to review the applicant's Cap and Trade Compliance Plan application. The applicant should review the Report of the Board, *Cap and Trade Regulatory Framework for the Assessment of Costs Natural Gas Utilities' Cap and Trade Activities* (OEB Report), which provides an explanation of the OEB's expectations and rationale for requiring the information outlined in these guidelines.

These filing guidelines include information the OEB will use to assess the utility's Compliance Plans, including:

- Forecasts and compliance plan documents;
- Reports to be filed annually for the purposes of monitoring the gas utility's compliance activities;
- Expected customer outreach and communication plans; and,
- Cost recovery documents (including annual re-calibration and true-up of Compliance Plans).

The applicant is expected to file information outlined in these filing guidelines in a separate application by August 1 of each year.

General Requirements

The basic format of an application for cost recovery of the applicant's Compliance Plan must include the following exhibits:

Exhibit 1	Administrative Documents
Exhibit 2	Forecasts
Exhibit 3	Compliance Plan Documents

Exhibit 4	Monitoring and Reporting
Exhibit 5	Customer Outreach
Exhibit 6	Deferral and Variance Accounts
Exhibit 7	Cost Recovery

Exhibit 1 – Administrative Documents

1. Executive Summary

This section is the opportunity for the applicant to provide an overview of key elements of its application and its overall Cap and Trade strategy including a discussion of the utility's longer-term thinking.

2. Administration

This section must include the following:

1. Table of Contents
2. Statement as to who will be affected by the application, including identification of any specific customer or customer groups that may be significantly affected by a particular request or proposal
3. Confirmation of the applicant's internet address for purposes of viewing the application and related documents
4. Contact information. The primary contact for the application may be a person within the applicant's organization other than the primary regulatory contact (the primary contact's name, address, phone number, fax and email address must all be provided). The OEB will communicate with this person during the course of the application. After completion of the application, the OEB will revert to communication with the primary regulatory contact
5. Identification of any legal or other representation for the application
6. Bill impacts for each year of the term for a typical residential customer and for a general service customer, or as applicable
7. List of specific approvals requested and relevant sections of legislation. All approvals, including accounting orders (deferral or variance accounts) which the applicant is seeking, must be separately identified in this exhibit and clearly documented in the appropriate section of the application
8. A statement identifying all deviations from the filing guidelines

3. Confidentiality

The treatment of confidential Cap and Trade information is discussed in the OEB Report. An applicant that is seeking confidential or strictly confidential treatment of any information filed with the OEB regarding the applicant's Compliance Plans must file documentation supporting the claim for confidentiality.

The documentation must include the following information:

- Reference to the statutory provisions under which the claim of confidentiality is asserted, e.g., *Climate Change Act*, or any other provision of law;
- Reference to the OEB Report in the case of strictly confidential information;
- A clear description of the information/documentation (henceforth called "information") for which confidential or strictly confidential treatment is being claimed;
- The period of time for which confidential or strictly confidential treatment is requested;
- The extent to which the information has been disclosed to others and whether its confidentiality has been maintained or its release restricted; and,
- Confidentiality determinations, if any, made by other public agencies as to all or part of the information and a copy of such determinations, if available.

Information that is classified as "Auction Confidential" and "Market Sensitive", as discussed in the OEB Report, should be clearly identified by the applicant utility and will be treated as strictly confidential and not disclosed to parties beyond the OEB. The Filing Guidelines identify certain information that is to be filed on a Strictly Confidential basis as it is either Auction Confidential or Market Sensitive.

If an applicant utility seeks confidential treatment for any information other than information that is identified as strictly confidential in the OEB Report and these Guidelines, the utility should file a confidential version with the OEB and a redacted version for the public record. The OEB will then determine whether any parties beyond the OEB should be granted access to the confidential information, as discussed in the OEB Report and in accordance with the OEB's *Rules of Practice and Procedure* and *Practice Direction on Confidentiality*.

If documents contain both confidential and non-confidential information such documents should be filed confidentially with the OEB and a redacted document should be filed for the public record.

Exhibit 2 – Forecasts

1 Forecasting Period

As noted in the OEB Report, the forecasting period should align with the duration of the Compliance Plan.

i. Compliance Period 2017-2020

Option 1	Option 2
One-year forecasts (of volume, GHG emissions and carbon prices) for the first year (2017) and the second year (2018); AND	One-year forecasts (of volume, GHG emissions and carbon prices) for the first year (2017); AND
Annual forecasts for the remaining two years of the compliance period (2019-2020), to be filed by August 1 of the filing year	Annual forecasts for the remaining three years of the compliance period (2018-2020), to be filed by August 1 of the filing year

ii. Subsequent Compliance Periods (2021-2023, 2024-2026, etc.)

For subsequent compliance periods, annual forecasts for each year of the entire compliance period should be filed by August 1 of the first year of the compliance period.

2 Volume Forecasts

The applicant is to file the following volume forecasts: customer-related forecast and facility-related forecast.

The customer-related forecast will be based on the utility's customer load forecast excluding Large Final Emitters (LFEs) and voluntary participants. The facility-related forecast will be based on, amongst other things, the applicant's own natural gas

consumption forecasts related to its operations (including unaccounted for gas losses, etc.).

The methodology to be used to prepare the volume forecasts will be the same OEB-approved methodology the utility already uses for the purpose of rate-setting. The utility must provide all supporting documentation regarding its forecasts. For the volume forecasts, the DSM forecasts and customer-related abatement activities forecasts¹ must be shown separately.

3 GHG Emissions Forecasts

The applicant must include its GHG emissions forecasts of the following emissions:

- Customer-related GHG emissions (emissions related to customers' natural gas usage) – as with the volume forecast, the utility will need to exclude GHG emissions of LFEs and voluntary participants
- Facility-related GHG obligations (related to the distribution, transmission and storage of natural gas) – this will include process emissions, emissions from fugitive and leaked gas, and emissions from the utility's facilities and operations

The methodology to be used by the utility to calculate these GHG emissions is contained in the government's GHG Reporting Regulation (Ontario Regulation 452,09as amended and Ontario's Guideline for Greenhouse Gas Emissions Reporting issued on May 19, 2016).

4 Annual Carbon Price Forecasts

The applicant must include:

- The forecast, which will be set using the average of the Intercontinental Exchange (ICE) daily settlement prices of a California Carbon Allowance for each day of the forecast period for each month of the forecast year. The forecast period shall be 21 business days and should be as close as possible to the forecast year
- All supporting documentation that outlines methodology, calculations and assumptions

¹ The GHG abatement activities must be incremental to the applicant's 2015-2020 multi-year DSM plans (EB-2015-0029/EB-2015-0049).

Exhibit 3 – Compliance Plan

For the OEB to assess the cost-effectiveness and reasonableness of the applicant's Compliance Plan, the plan must include all of the information described in this section.

1. Overview of Compliance Plan

The applicant must provide an overview of its strategy and approach to Cap and Trade compliance, including rationale. This overview should provide a description of the cap and trade activities that will be undertaken in each year of the Compliance Plan.

As part of the overview, the applicant must include the following information regarding its approvals and accountabilities for the development of the Plan:

- The utility's establishment of clear governance and accountability with respect to the development and implementation of its Compliance Plan
- The utility's policies and processes that describe the checks and balances in place to ensure effective risk management and compliance monitoring

As part of the overview, the applicant must also provide the following information:

- Outline the resources and capabilities to participate in the primary and secondary cap and trade markets (e.g., registration in Compliance Instrument Tracking System Service (CITSS), appropriate trading personnel, awareness of market tools, brokerages and exchanges)
- Any creditworthiness analysis of counter-parties and financial intermediaries that the utility may deal with

2. Compliance Option Analysis and Optimization of Decision-making

The utility must include the following:

1. A quantitative and qualitative description of all the compliance options the applicant is planning to use during the compliance period.

2. An explanation of how the utility's approach to compliance achieves the guiding principles set out in section 3 of the OEB Report as well as the assessment objectives of optimization, integration and adaptability set out in section 5.3 of the OEB Report.
3. An explanation of the utility's rationale for compliance options selection and reasons why alternative compliance options were not selected.
4. An explanation of how the utility used the OEB Marginal Abatement Cost Curve (MACC) to pace and prioritize compliance instruments to manage costs and risks.
5. A qualitative and quantitative explanation of how the compliance options selected by the utility are cost-effective and result in optimal decision-making.
6. An explanation of whether the utility's approach considers long-term (5-10 years) strategies for GHG abatement, and if so how these are considered. If not, the utility is to explain why it did not consider long-term abatement strategies.
7. For any activities included in the Compliance Plan that are more expensive per tonne of carbon dioxide equivalent than the annual carbon forecast price, a qualitative and quantitative description of the strategic value in these investments (e.g., long-term considerations related to GHG mitigation and the increasing price of emissions units in the longer term).
8. A comparison of costs of investing in GHG abatement activities versus procuring emissions units over the short-term and long-term.

Note: As noted in section 3, any information that is Auction Confidential and/or Market Sensitive (as defined in the OEB Report) must be clearly marked confidential.

3. Performance Metrics and Cost Information

1. A quantitative and qualitative description of the total costs of the Compliance Plan portfolio, outlined by year and over the entire compliance period, including:
 - a. Cost of total Compliance Plan
 - b. Costs by year

- c. Cost by year per compliance instrument/activity (Auction Confidential and Market Sensitive)
2. An outline of the utility's compliance options for each year of the Compliance Plan, including:
- a. Allowances (Auction Confidential and Market Sensitive)
 - i. Number of allowances to be procured (through auctions and through bilaterals, over-the-counter (OTC), etc.)
 - ii. Price of allowances (using annual forecast or OEB 10-year carbon price forecast)
 - iii. Timing of procurement
 - iv. Total forecasted cost
 - v. Forecasted cost per tonne of GHG
 - b. Offset credits (Market Sensitive)
 - i. Number of offset credits to be procured (from government registries, bilaterals, OTC, etc.)
 - ii. Forecasted price of offset credits
 - iii. Timing of procurement
 - iv. Total forecasted cost
 - v. Forecasted cost per tonne of GHG
 - c. Abatement activities – customer-related²
 - i. Type of program
 - ii. Total forecasted cost (include quantity and forecasted price by program)
 - iii. Forecasted GHG reduction
 - iv. Forecasted cost per tonne of GHG reduction
 - d. Abatement activities – facility-related
 - i. Type of program
 - ii. Total forecasted cost (include quantity and forecasted price by program)
 - iii. Forecasted GHG reduction
 - iv. Forecasted cost per GHG tonne reduction

² The GHG customer-related abatement costs must be incremental to the applicant's 2015-2020 multi-year DSM plans (EB-2015-0029/EB-2015-0049).

3. Administrative Costs – Detailed account of administrative costs of Cap and Trade by year and by compliance period, including:
 - a. Breakdown of total Full Time Employees; total Part-Time Employees, Total Salaries & Wages, and Salaries and Wages and Benefits charged to OM&A
 - b. IT systems such as billing, trading platforms, etc.
 - c. Others
4. Financing costs
 - a. Carrying costs related to the acquisition of emissions units for future compliance
 - b. Others

4. Risk Management

The applicant must provide the following:

1. Risk identification
2. The utility's risk mitigation and scenario analysis

i. Risk identification

The applicant must include the following:

1. Identification of risks associated with:
 - a. Volume variability
 - b. Allowance price variability (including foreign exchange risk)
 - c. Emissions unit availability
 - d. Market risk
 - e. Non-compliance
 - f. Other risks identified by the utility

ii. Risk Mitigation and Scenario Analysis

The applicant must provide the following information:

1. Scenario analysis for the duration of the compliance period that includes high, medium and low risk scenarios associated with:
 - a. Volume variability (and associated GHG emissions)

- b. Price of emissions units, including exchange rate risk
 - c. Description of how the utility has ensured that its Compliance Plan is robust and flexible, and able to respond to changes in volume, emissions unit availability, and carbon prices (with reference to the scenario analysis above). For example, the utility, in its Plan, should outline how it would scale up and/or down due to unexpected changes in volume and associated GHG emissions.
2. If the utility plans to undertake any financial hedging activities:
- a. Description of these activities with rationale
 - b. A qualitative and quantitative description of the strategies the utility intends to pursue
 - c. Description of how the utility has determined that these activities are cost-effective and reasonable
 - d. Description of the risks associated with these activities
 - e. Description of the utility's plans for mitigating the risks

5. Longer Term Investments

The applicant is to include the following information:

1. A discussion of longer-term expectations (5 - 10 years) associated with Cap and Trade, including risks associated with:
 - Volume (and GHG emissions) increases or decreases
 - Carbon prices
2. Description of the utility's consideration of long-term strategies to reduce facility-related and customer-related GHG emissions (either as a part of Compliance Plan related to Cap and Trade or as separate initiatives). This will include describing long-term compliance options and corresponding costs in the OEB MACC.

6. New Business Activities

The applicant must provide the following information:

- A detailed description of any new business activities it is proposing to pursue as a result of the Cap and Trade program

- Confirmation that the accounting treatment it has used has segregated all of these activities from its rate-regulated activities

Exhibit 4 – Monitoring and Reporting

The applicant will file annual monitoring reports to align with utility's annual cap and trade application by August 1st of each year of the compliance period.

The annual reports are to include:

- Auction transactions (including quantity, bidding price, settlement price and total cost)
- Summaries of offsets and secondary market transactions
- Any other cap and trade activities that the applicant participated in
- Costs per tonne (\$/tonne) of each compliance instrument or activity
- A comparison of costs of investing in GHG abatement activities versus procuring emissions units over the short-term and long-term
- Comparison of actuals with forecasts with an explanation of the differences

Exhibit 5 – Customer Outreach

The applicant is to provide a description of its Cap and Trade customer outreach and communication plans and strategies.

Exhibit 6 – Deferral and Variance Accounts

The applicant must include the following information:

- List and provide a brief description of all Cap and Trade Deferral and Variance Accounts
- Deferral and variance account balances (principal), carrying charges and total amounts sought for disposition
- Interest rates applied to calculate the carrying charges for each deferral and variance account. The applicant must provide the rates by month or by quarter for each year
- Explanation if the account balances in the continuity schedule differ from the account balances reported through the RRR and the audited financial statements

- A statement as to any new accounts or sub-accounts that the applicant is requesting, and justification for each requested account or sub-account
- A statement as to whether or not the applicant has made any adjustments to deferral and variance account balances that were previously approved by the OEB on a final basis. If this is the case, the applicant must provide explanations for the nature and amounts of the adjustments and include supporting documentation under a section titled “Adjustments to Deferral and Variance Accounts”.

Exhibit 7 – Cost Recovery

The applicant is to file the following:

1. For customer-related obligations:
 - Total costs (i.e., total costs of utility’s annual compliance options)
 - Allocation factor (based on applicable volumes by rate class)
 - Unit charge by rate class
2. For facility-related obligations:
 - Total costs (i.e., total costs of utility’s annual compliance options)
 - Allocation factor (based on applicable volumes by rate class)
 - Unit charge by rate class
3. For administrative costs:
 - Total costs
 - Allocation factors
 - Adjustment to delivery rate by rate class

Rate schedules including all supporting documentation and bill impacts should also be provided.

Deferral and variance account balances will need to be apportioned between customer-related and facility-related obligations. The utility must provide that separation including the allocation methodology used.

The utility must provide the following for customer-related deferral and variance account balances:

- Total account balances
- Allocation factor (based on applicable volumes by rate class)

- Unit charge by rate class

The utility must provide the following for facility-related deferral and variance account balances:

- Total account balances
- Allocation factor (based on applicable volumes by rate class)
- Unit charge by rate class

Appendix B: Example of Annual Carbon Price Forecast

Assuming a 21- day period in August 2015, the forecast for 2016 is the table below.

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Trade Days	Delivery Months											
	1/1/2016	2/1/2016	3/1/2016	4/1/2016	5/1/2016	6/1/2016	7/1/2016	8/1/2016	9/1/2016	10/1/2016	11/1/2016	12/1/2016
8/3/2015	12.72	12.76	12.8	12.83	12.87	12.92	12.95	12.98	13.01	13.04	13.07	13.1
8/4/2015	12.72	12.76	12.8	12.83	12.87	12.92	12.95	12.98	13.01	13.04	13.07	13.1
8/5/2015	12.74	12.78	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.12
8/6/2015	12.74	12.78	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.12
8/7/2015	12.74	12.78	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.12
8/10/2015	12.74	12.78	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.12
8/11/2015	12.74	12.78	12.82	12.85	12.89	12.93	12.96	12.99	13.02	13.05	13.08	13.11
8/12/2015	12.75	12.79	12.82	12.85	12.89	12.93	12.96	12.99	13.03	13.06	13.09	13.12
8/13/2015	12.76	12.8	12.84	12.87	12.91	12.95	12.98	13.01	13.04	13.07	13.1	13.13
8/14/2015	12.76	12.8	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.14
8/17/2015	12.77	12.81	12.82	12.85	12.89	12.93	12.96	12.99	13.03	13.06	13.09	13.14
8/18/2015	12.77	12.81	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.15
8/19/2015	12.76	12.8	12.82	12.85	12.89	12.94	12.97	13	13.03	13.06	13.09	13.14
8/20/2015	12.79	12.83	12.87	12.9	12.92	12.97	13	13.03	13.06	13.09	13.12	13.17
8/21/2015	12.78	12.82	12.86	12.89	12.91	12.96	12.99	13.02	13.05	13.08	13.11	13.16
8/24/2015	12.79	12.83	12.87	12.9	12.92	12.96	13	13.03	13.06	13.09	13.12	13.17
8/25/2015	12.79	12.83	12.87	12.9	12.92	12.96	13	13.03	13.06	13.09	13.12	13.17
8/26/2015	12.77	12.81	12.85	12.87	12.9	12.94	12.97	13	13.03	13.06	13.09	13.13
8/27/2015	12.77	12.81	12.85	12.87	12.9	12.94	12.97	13	13.03	13.06	13.09	13.13
8/28/2015	12.78	12.82	12.86	12.88	12.91	12.95	12.98	13.01	13.04	13.07	13.1	13.14
8/31/2015	12.78	12.82	12.86	12.88	12.91	12.95	12.98	13.01	13.04	13.07	13.1	13.14

Sum:	3263.4
Data Points:	252

Average:	12.95
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Appendix C:

ⁱ The Practice Direction provides, in section 4.1 that, where an OEB template or filing guideline indicates that information will be treated in confidence no formal request for confidentiality is required. However, to the extent practicable, any such information should be clearly marked “confidential”. Where a Board template or filing guideline indicates that information will be treated in confidence, the information will not be placed on the public record nor provided to any other party unless another party requests access to that information under section 4.1.4 and the Board rules in favour of that request, taking into account the requirements of s.5.1.7 and 5.1.9 and the Appendices to the Practice Direction.

ⁱⁱ The *Climate Change Act*, Section 32 states:

(6) No person shall disclose whether or not the person is participating in an auction.

Same

(7) No person shall disclose whether or not the person is taking part in an auction or any other information relating to the person’s participation in an auction, including the person’s identity, bidding strategy, the amount of the person’s bids and the quantity of emission allowances concerned, and the financial information provided to the Director in connection with the auction.

Same

(8) If a prospective purchaser retains the services of another person in connection with an auction, the other person shall not disclose any of the information described in subsection (7) relating to the prospective purchaser.

Exception

(9) Subsections (6), (7) and (8) do not apply with respect to a disclosure to such persons as may be prescribed.

Prohibition re: bidding strategy

(10) No person shall coordinate the bidding strategy of more than one prospective purchaser in connection with an auction.

ⁱⁱⁱ Sections 5 and 17 of O. Reg. 381/07: CONFLICT OF INTEREST RULES FOR PUBLIC SERVANTS (MINISTRY) AND FORMER PUBLIC SERVANTS (MINISTRY) under *Public Service of Ontario Act, 2006*, S.O. 2006, c. 35, Sched. A state:

5. (1) A public servant shall not disclose confidential information obtained during the course of his or her employment by the Crown to a person or entity unless the public servant is authorized to do so by law or by the Crown. .

(2) A public servant shall not use confidential information in a business or undertaking outside his or her work for the Crown.

(3) A public servant shall not accept a gift directly or indirectly in exchange for disclosing confidential information.

17. (1) A former public servant shall not disclose confidential information obtained during the course of his or her employment by the Crown to a person or entity unless the former public servant is authorized to do so by law or by the Crown.

(2) A former public servant shall not use confidential information in a business or undertaking.

^{iv} Section 111 of the OEB Act states:

Confidentiality

111. (1) All documents and records obtained by an inspector under section 107 or 108, and information obtained by an inspector under section 107, are confidential and shall not be disclosed to any person other than a member of the Board or an employee of the Board except,

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- (a) as may be required in connection with the administration of this Act or any other Act that gives powers or duties to the Board or in any proceeding under this or any other Act that gives powers or duties to the Board;
- (b) to counsel for the Board or an employee of the Board;
- (c) with the consent of the owner of the document or record or the person who provided the information; or
- (d) in accordance with an agreement described in subsection (3). 2003, c. 3, s. 74; 2015, c. 29, s. 17 (1).

^v Section 42 of the *Cap and Trade Regulation* states:

42. (1) The Minister shall make available to the public, in a manner that the Minister considers appropriate, a written summary of each auction or sale, setting out the following information: 1. In the case of an auction, i. the lowest bid price accepted for Auction Class 1 emission allowances, and ii. the lowest bid price accepted for Auction Class 2 emission allowances. 2. The registered participants who submitted bids in the auction or sale. 3. Details regarding the number of emission allowances sold, the number of each vintage year or category of emission allowances sold, and a description of how the emission allowances were distributed among the participants who submitted bids, without identifying which participants purchased the emission allowances. (2) The summary shall be made available within 45 days following the conclusion of the auction or sale.

^{vi} The *Climate Change Act*, section 28(5) prohibits trading where there is an undisclosed change and Section 28(6) prohibits “tipping” information that is not generally disclosed. The sections state:

Trading where undisclosed change

(5) No person shall purchase, sell, trade or otherwise deal with emission allowances or credits if the person has knowledge of information that has not been generally disclosed and that could reasonably be expected to have a significant effect on the price or value of an allowance or credit.

Tipping

(6) No person shall, other than in the necessary course of business, inform another person of information that has not generally been disclosed and that could reasonably be expected to have a significant effect on the price or value of an emission allowance or credit.

^{vii} Rules, section 10 and Practice Direction, section 5.