Economic Regulation and the Distribution of Compressed Natural Gas in Nova Scotia

A Report Based on Stakeholder Consultations for the Nova Scotia Department of Energy

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Executive Summary

This report deals with the question of whether or not the distribution of Compressed Natural Gas (CNG) in Nova Scotia should be regulated under the *Gas Distribution Act*. The *Gas Distribution Act* currently is written to apply to the construction and operation of a "gas delivery system". The question addressed in this report is not whether the distribution of CNG falls within the Act's definition of "gas delivery system" and therefore within the requirement of the Act that "no person shall construct or operate a gas delivery system except pursuant to a franchise" granted by the Nova Scotia Utilities and Review Board (UARB). Rather, the question is whether the distribution of natural gas in the form of CNG should be subject to economic regulation under the *Gas Distribution Act* in the same manner as distribution of natural gas by pipeline.

The conclusion reached in this report has four parts.

First, the conclusion reached is that distribution of CNG should not be subject to economic regulation where it is being supplied to single customers or to a "cluster" of customers who are closely related as indicated by factors such as common ownership, immediate geographic proximity, and functional integration. The foundation for this conclusion is that the core rationale for limiting distribution to a regulated monopoly, that this is better for the consumer than competitive markets, is not applicable to the business of CNG distribution. There are a number of companies actively competing for CNG customers in Nova Scotia. The capital investments required, while large, do not therefore appear to be large enough to discourage the development of a competitive market. To extent that some of this investment proves excessive, there is reason to believe that it can be largely redeployed, meaning that the risk that CNG customers in Nova Scotia will be burdened with the costs of paying for "stranded" infrastructure is limited. In addition, the customers for CNG will be large consumers of energy who will be well positioned to protect their own interests in negotiating contractual terms with CNG suppliers. Finally, the infrastructure required does not entail the kind of community or environmental disruption that is associated with construction of pipelines. Therefore the interest that society has in avoiding the construction of competing pipelines does not apply to the construction of competing systems of CNG distribution.

Second, the conclusion reached is that CNG distribution should be subject to economic regulation under the *Gas Distribution Act* where it is carried on as a step in a gas delivery system that can be described as a ***public*** gas delivery system. This would be the case where, for example, CNG was trucked from either a transmission or distribution pipeline to a "satellite" pipeline that provided natural gas to multiple unrelated customers. In this situation, as well as all other situations in which CNG is used within a public gas delivery system, the distribution of CNG should be an activity that is exclusive to the regulated utility that holds the franchise for the construction and operation of the public gas delivery system (i.e. pipeline) in question. The rationale for this conclusion is straightforward: where CNG is used within a public gas delivery system, the rationale for regulation of the broader system of distribution that is enabled or assisted by CNG applies to the CNG component of the system just as it applies to all other components of the system.

Third, the conclusion reached in this report is that the unregulated distribution of CNG to customers who have the existing option to take natural gas from a public gas delivery system should be prohibited. In other words, it should be clear that customers who are "on" a regulated pipeline must, if they wish to use natural gas, acquire that gas by connecting to that pipeline. The core rationale for this conclusion is that the broader public interest relative to the distribution of natural gas is best served by making natural gas available to as many Nova Scotians as possible through economically sustainable public gas delivery systems (i.e. pipelines). In that context, an unregulated market for CNG distribution that included potential CNG customers who have the option of purchasing gas from regulated public gas delivery systems would involve unacceptable risk that it could undermine the economic viability of those systems. An additional and supporting rationale for this conclusion is that it provides protection not only to those who have invested in the cost of the pipeline (including all ratepayers) but also to natural gas customers who have incurred the costs required to make their connection with the pipeline possible, obviously on the assumption that the pipeline would exist for the long term. Finally, prohibiting competition between unregulated CNG distributors and public gas delivery systems relative to customers who have the option of being served by the latter will ensure that communities that have experienced the unavoidable disruption associated with pipeline construction are not then required to experience the ongoing disruption and inconvenience that might be associated with steady movement of large CNG trucks through their streets.

Fourth, this report concludes that the legislative and regulatory framework for the distribution of CNG in Nova Scotia should be reviewed in five years. The rationale for this conclusion is that there is currently no way of knowing with certainty how alternative frameworks, including the one proposed in this report, will influence the development of public gas delivery systems or the broader availability of natural gas in Nova Scotia. This reality reflects many variables, including the newness of the technical and economic viability of distribution of natural gas through CNG and the relative newness and uniqueness of Nova Scotia's system for distributing natural gas through a regulated pipeline utility. By itself, this uncertainty argues for a further review of the policy questions raised by the advent of CNG distribution in Nova Scotia after the market has had a five-year opportunity to develop.

Part I: Introduction

In late April of 2012, the author of this report was asked by the Deputy Minister of the Nova Scotia Department of Energy, Mr. Murray Coolican, to assist the Department in conducting a consultation and to provide advice to the Department on the question of whether the distribution of Compressed Natural Gas (CNG) should take place in Nova Scotia through a regulated or unregulated market.

The Appendix to this report is a copy of the Consultation Document that was released by the Department to assist with the consultation process. The changes in technological and market conditions that have made CNG an attractive option both for a range of large energy customers in the industrial, commercial and institutional sectors and a number of companies who are interested in supplying CNG to these customers, along with the policy questions that were canvassed with those who participated in the consultation process, are set out in the Consultation Document.

This report sets out the conclusions reached and the rationale for these conclusions. Essentially, the conclusion is that Nova Scotia should not embark on the regulation of the market for CNG where it is supplied to individual customers or to customers connected by common ownership or by functional integration and that are co-located or located on adjoining property. The related conclusion is that the distribution of CNG should be subject to the *Gas Distribution Act* where it takes place as part of a public gas delivery system, meaning a gas delivery system that supplies gas to multiple customers through a pipeline. The applicability of the *Gas Distribution Act* would mean that the distribution of CNG as a part of a public gas delivery system would be limited to companies holding a franchise under the Act to operate a public gas delivery system. Finally, it is concluded that the open market for the distribution of CNG to individual or related customers otherwise than through a public gas delivery system should be subject to an amendment to the *Gas Distribution Act* that prohibits supply of CNG to customers who have the option of obtaining natural gas from a regulated public gas delivery system.

The balance of this report is divided into five parts. In Part II, the question this report aims to answer is set out and explained in greater detail. In Part III, the basic arguments of those against and of those in favour of a regulated market for the distribution of CNG are set out. This summary of arguments does not purport to be comprehensive but is instead intended to give the reader of this report a sense of the main or core arguments made by each side in this debate. Part IV identifies and explains some of the main considerations that have been taken into account in deciding the questions that have been posed. Part V sets out the conclusions and associated recommendations that have been reached. Finally, Part VI provides the rationale (supporting arguments) for each of these conclusions.

Part II: What is the Question?

The question is whether CNG delivered to customers by truck should be distributed through a wholly regulated or wholly unregulated market or alternatively, through a market that is regulated in some locales or circumstances and unregulated in other locales or circumstances?

In this context, a regulated market means a market in which distribution is limited to one or more companies that are given a franchise and exclusive distribution rights under the *Gas Distribution Act* by

the Nova Scotia Utilities and Review Board (NSUARB). In other words, under a regulated market approach, the distribution of CNG to energy customers would be the exclusive right of a regulated utility, in much the same way as the distribution of natural gas by pipeline to end users is carried out in Nova Scotia (and throughout North America) by regulated utilities. Under this regulatory model, companies involved in the business of distributing CNG by trucks would, like companies involved in the distribution of natural gas by pipeline, be subject to regulatory oversight dealing with matters such as price of the distribution service, the provision of service to customers, safety, and the allowable rate of return on invested capital.

In an unregulated model, the distribution of CNG would take place according to terms and conditions determined by contracts negotiated between CNG suppliers and their customers. There would be no regulatory oversight of those terms and conditions, much as there is currently no regulatory oversight of the buying and selling of the fuels that CNG would compete with, such as propane or oil.

In both the regulated and the unregulated model, the various physical activities that would occur to enable the distribution of CNG would be subject to various kinds of regulation. For example, the construction of a compression station on a pipeline would be subject to legislation dealing with matters such as pipelines, pressure vessels, environment and occupational health and safety. The applicable legislation might be provincial or federal depending on whether the compression station was built on the transmission pipeline (the Maritimes and Northeast Pipeline) or a distribution pipeline (a pipeline operated by Heritage Gas). The trucking of CNG to customers would also be subject to various branches of regulation administered by various regulators. These regulations would deal with matters such as the approval of the trailers used to haul CNG (a matter within the jurisdiction of Transport Canada), seasonal highway weight restrictions (as determined by the Nova Scotia Department of Transportation and Infrastructure Renewal), and “generic” regulatory matters such as occupational health and safety or environmental protection.

The question of whether CNG should be distributed through a regulated or an unregulated market refers to an entirely different kind of regulation, that which relates to the energy service that suppliers of CNG would be selling to customers through the compression and trucking of CNG. The consultations confirmed that safety or environmental protection or other kinds of generic regulatory concerns pertaining to the physical activities involved in the distributing of CNG were not relevant to the question of whether the business of CNG distribution (as opposed to its physical processes) should be subject to economic regulation.

Throughout this report, the activity in question is referred to as the business of distributing CNG (or as CNG distribution) to distinguish it from the physical activities and processes, including CNG trucking, that would be used to distribute CNG. Nevertheless, because the distribution of CNG is synonymous with the trucking technology that will be used to make it happen, it is probably inevitable that some will think of the question in terms of whether the business of CNG trucking should be regulated.

Part III: The Basic Arguments for Each Position

All stakeholders agree that given the current and projected price of natural gas relative to other fuels, the availability of natural gas in the form of CNG is a significant economic opportunity for energy users who (a) consume enough energy to be potential CNG customers and (b) do not have access to natural gas through a gas distribution utility. Everyone agrees that if these energy users are given the option through CNG trucking to convert to natural gas that it will allow these users to significantly reduce their energy costs and carry broader economic and environmental benefits for Nova Scotia. Reduced energy costs will improve the competitiveness of significant employers. Wider use of natural gas will mean less use of fossil fuels that are not as clean as natural gas. Everyone also agrees that the goal of Nova Scotia's public policy should be to ensure that the opportunity to convert to natural gas should be made available to as many potential customers as possible and especially to as many as possible of those who are not now serviced by pipeline, i.e. a gas distribution utility.

The disagreement is over how this objective can best be accomplished. In the view of those who argue for an open market approach, competition between rival suppliers for customers will push suppliers to seek customers farther afield from the compression stations at which natural gas is compressed for trucking, thus ensuring that the opportunity to access natural gas is widely available. Competition will also mean that customers will have choice, forcing providers to keep prices down and service up. In addition, proponents of an open market argue that, in light of these benefits of an open market to potential customers for CNG, the business opportunity of selling CNG should be available to all who are able and willing to make the investment needed to enter into the market. In this connection, there is a suggestion from some who advocate for an open market that a regulated gas utility (i.e. a company who has monopoly rights within a franchise territory to operate a gas delivery system) should be prevented from competing in the open market using capital acquired through their regulated gas distribution business.

Those who argue for a regulated market make three core arguments. Most fundamentally, they argue that the rationale for a regulated market when natural gas is distributed by pipeline also applies to the distribution of CNG by truck. Essentially, this argument is that CNG trucking, largely because of the scale of capital investment involved, qualifies as a "natural monopoly", meaning that the service of delivering CNG by truck will actually be provided on more economic terms for customers if the service is provided through a regulated monopoly. This is what is said to differentiate the trucking of CNG from the trucking of propane or other fuels to customers via the competitive market. On this view, an open market approach is likely to result not in the benefits of competition between multiple providers but in the dangers of an unregulated monopoly as the costs of entering and expanding the business leads to concentration of more and more of the business into the hands of a single supplier.

Second, the proponents of regulation say that regulated suppliers of CNG will be required by the regulatory process to make CNG available not only to the large stand-alone customers who would be attractive to unregulated suppliers but also to smaller customers who are vulnerable to being neglected in an unregulated market.

Third, the proponents of a regulated market raise the concern that if an open market is allowed to prevail for the distribution of CNG, the functioning of that market could undermine the economic rationale for extension of the pipeline network and perhaps even for its continuation in regions where it currently exists. With respect to the concern that an open market could limit extension of the pipeline system, the argument is that the "cherry picking" of large "base customers" by unregulated providers will: (a) undermine the economic rationale that would otherwise exist for extension of the pipeline to some of these customers and therefore to their neighbouring communities or (b) interfere with the opportunities that may exist to use trucking as the link between an existing gas delivery system and one or more "satellite" pipelines that might service not only large customers but also their neighbouring communities. The same concern is expressed with the prospect of an open market prevailing not only outside of the franchise territory of the gas distribution utility but inside that franchise territory, as suggested by proponents of an open market model. If large customers could opt to take their gas from unregulated CNG suppliers, the concern is expressed that the viability of the gas distribution utility could be compromised as a higher proportion of the cost of the utility would have to fall on households and smaller businesses and institutions (i.e. on natural gas customers for whom CNG is not a viable alternative).

Proponents of an open market simply reject the claim that CNG trucking has the characteristics that are typically associated with a natural monopoly. They point to the number of companies already competing to secure customers in Nova Scotia in anticipation that the existence of an open market will (on their understanding of the current legislation) be confirmed. They also point out that customers of CNG will typically maintain the technology that allows them to use other fuels, such as oil, and that this will protect customers against becoming dependent on CNG in an unregulated market. Some of these proponents also respond to the concern that an open market will undermine the economics for pipeline extension by saying that where a pipeline is otherwise economically feasible, trucking simply cannot compete with the price and other advantages that the customer receives through the gas distribution utility option. On this view, the economics that would make a pipeline viable in the absence of the availability of competition from trucking will also maintain the economic viability of the pipeline in the presence of competition from unregulated CNG distributors.

Finally, proponents of an open market caution about undue optimism about the prospects for satellite pipelines that are connected to a conventional gas delivery system through the trucking of CNG from the latter to the former. For example, they say that the fact that CNG cannot be stored means that there will be weather related disruptions in the supply of natural gas to all those supplied through trucking and that whereas industrial, commercial and large institutional customers are likely to have retained back-up systems that run on other fuels, this is less likely to be the case for residential customers. They also raise the possibility that some large customers may not want to be the anchor for a wider distribution system and that some that do may either not have many neighbours or not be a dependable anchor because of their economic situation.

Part IV: Important Considerations in Answering the Question

The following are among the considerations that are relevant to answering the question of whether the business of distributing CNG should be through a wholly regulated or wholly unregulated market or alternatively, through a market that is regulated in some locales or circumstances and unregulated in other locales or circumstances:

1. Economic regulation (also referred to as market regulation) should be implemented only where there is a compelling reason of public policy to do so. For many reasons, it is the exception to the rule, not the rule. In deciding whether a particular market should be regulated or left unregulated, the policy onus is on those who argue for economic regulation. The default position for public policy is open (unregulated) markets;

2. The economic and environmental benefits to be derived from the use of natural gas in Nova Scotia will be greater for the province as a whole if natural gas is made available through a pipeline-based gas distribution system to as many businesses, homes, institutions and communities as possible. Nova Scotia's gas distribution system is still in its early stages of development. The opportunity of making natural gas available in the form of CNG delivered by trucks should be exploited with a view to ensuring it does not inhibit the viability or extension of the pipeline-based gas distribution system;

3. The availability of CNG represents a significant opportunity for some large energy users, including manufacturing facilities that are operating in difficult economic circumstances and public institutions facing constrained budgets, to achieve significant reductions in their energy costs. Conversion of these energy users to natural gas will have broader economic, environmental and community benefits. In some situations, these benefits may include the wider availability of natural gas through a "satellite" gas delivery system that is anchored to one or more large energy users that are supplied CNG by truck. Public policy should therefore aim to support and not impede businesses and institutions that wish to take advantage of this opportunity, particularly in circumstances where natural gas through a pipeline is not an option;

4. On the other hand, the availability of CNG may not make natural gas available to all of the businesses and institutions that are currently "off grid" and that would use natural gas if it could be economically brought to them. In addition, where use of CNG does make economic sense for such customers, it may not always mean that these customers can become anchor customers for the creation of a "satellite" public gas delivery system;

5. The use of CNG supplied by truck is a relatively new practice in the energy market that is still in development. It has a limited track record on which to base firm conclusions about how it will develop and how it will change energy markets and patterns of decision-making among large scale energy users. Nova Scotia's gas distribution utility (i.e. its regulated pipeline system) is still in early stages of its development. Regarding the potential interplay between these two methods of

natural gas distribution, Nova Scotia is not easily compared to other jurisdictions. It may not be readily comparable to New Brunswick, where the gas distribution system is also relatively new, because of the greater emphasis that Nova Scotia has placed on financing extension of the pipeline through ratepayer revenues. It may not be readily comparable to other jurisdictions in which public gas delivery systems and unregulated CNG distribution co-exist because of the greater maturity of the gas distribution system in most if not all of those jurisdictions. These points – the newness and developing nature of the CNG business and the relative distinctiveness of Nova Scotia's situation in relation to natural gas – should be kept in mind in deciding how to address the business of CNG distribution and its relationship to pipeline-based natural gas distribution in Nova Scotia; and

6. All other things being more or less equal, the regulatory framework for the distribution of CNG should be simple and clear and easy to explain and to understand. Absent a compelling and defensible concern of public policy, the framework should aim to treat similarly situated suppliers and customers in a consistent manner on an even playing field.

Part V: Conclusions and Associated Recommendations

The answer to the question has four parts.

First, Nova Scotia should have an unregulated market outside of the *Gas Distribution Act* for the distribution of CNG by truck to individual or related business or institutional customers. That is, the market should be unregulated where CNG is being delivered to a single customer or to a "cluster" of customers who are closely related as indicated by common ownership, immediate geographic proximity, or functional integration. It could be argued that such a market already exists under the *Gas Distribution Act* as it is currently written. But to make it perfectly clear that such a market does exist as an unregulated market in Nova Scotia, the *Act* could be amended to make it clear that the provision of CNG to a single customer, or to a group of closely related customers (i.e. as indicated by indicia such as common ownership and function integration), as well as the movement of natural gas within the facility of an individual customer or within closely related facilities, is not subject to the *Act*. With such an amendment the *Gas Distribution Act* would more clearly differentiate between a system of pipes and other infrastructure used to move gas within a single facility or group of related facilities and a system of pipes and other infrastructure, including compression and decanting stations, used to establish and operate a gas delivery system that serves the public and is therefore appropriately regulated within a public utilities model as a public gas delivery system.

Second, the distribution of CNG should continue to be subject to the *Gas Distribution Act* where it is carried out to move natural gas within what the Act currently calls a gas delivery system but which should be called (or understood to mean) a *public* gas delivery system. This would include the situation where the NSUARB determines that the creation of a satellite pipeline in or outside of an existing gas distribution franchise territory to be supplied by trucked CNG (through an anchor customer or otherwise) is viable and otherwise in the public interest. In these situations, the distribution of CNG

should be the exclusive right of the entity that holds the franchise rights in the territory to be served by the approved satellite pipeline.

Third, the *Gas Distribution Act* should prohibit the distribution of CNG, except by a regulated franchise holder under the *Gas Distribution Act*, to customers who have the option of obtaining natural gas from a public gas delivery system, i.e. a gas distribution utility operating a regulated pipeline.

Fourth, there should be a five-year review of the legislative and regulatory framework for the distribution of CNG in Nova Scotia. One of the objectives of this review would be to evaluate the impact of an open market for the distribution of CNG to single or related customers that do not have the option of receiving natural gas from a public gas delivery system on the public interest in the viability of public gas delivery systems and in their expansion.

Part VI: The Supporting Rationales

Supporting rationale for the first conclusion: distribution to individual or closely related customers should be unregulated (i.e. it should not be subject to the Gas Distribution Act)

The rationale for the conclusion that the distribution of CNG to individual or closely related customers should be unregulated is as follows:

1. Economic regulation should be instituted only where there is a compelling reason of public policy to do so. For many reasons, it is the exception to the rule, not the rule. In deciding whether a particular market should be regulated or left unregulated, the policy onus is on those who argue for regulation. The default position for public policy is open (unregulated) markets.

2. There is general consensus that the core rationale for economic regulation through a utilities model of regulation is that the market has the attributes of a "natural monopoly", independently of whether it is regulated by law. This means that the market in question is one in which monopoly control is better for the consumer than competitive markets – thus the phrase "natural monopoly". Economic regulation ensures that consumers obtain the benefits of monopolistic control of the market while protecting consumers from the vulnerabilities that consumers are exposed to in all monopolies.

3. The attributes that constitute natural monopolies are subject to some debate by economists. Nevertheless, it can be said that a natural monopoly exists where a service can be provided more cost effectively to consumers in general if it is provided by a single provider. This condition prevails where the investment in infrastructure that is necessary to provide the service is of such a magnitude that it might not occur unless investors can be assured of a predictable and stable market for their product over a significant period of time (which allows them to charge affordable prices and still achieve a return on investment). A monopoly of the market creates these mutually advantageous conditions for investors and consumers. Conversely, if investors decide to take the risks of backing rival providers in a market that requires the capital investment of each provider that is associated with natural monopolies, the concern is that consumers will end up paying the cost of

what in the end will be unnecessary (duplicative) expenditure on expensive and fixed infrastructure. These costs will include the social and environmental costs of more disruption of the natural and built environments and of other activities than would have been experienced if the necessary infrastructure for the service was more rationally developed by a single provider from the beginning.

4. These attributes of natural monopoly apply to the distribution of natural gas because of the attributes of distribution by pipeline, not because of the attributes of natural gas. It is the economics of building and operating a pipeline that give rise to natural monopoly conditions and that in turn lead to the decision to limit the development, ownership and operation of distribution pipelines to companies that are regulated utilities.

5. The capital investment required to enter the business of distributing CNG by truck to customers in Nova Scotia will be significant. It does not however appear to be of such a magnitude as to give the business of CNG distribution, as a distinct business, the attributes of a natural monopoly. This conclusion is suggested by the magnitude of the investment required to enter the CNG truck delivery business as opposed to the magnitude of the investment required to enter into the business of delivering natural gas to end users by pipeline. It is also suggested by the consideration that much of the infrastructure required for the CNG trucking business is infrastructure that is scalable as business increases or decreases and that can be relocated to reflect changes in demand. There is therefore less risk of the market being burdened with the cost of excessive infrastructure or of stranded assets. Finally, even to the extent that the infrastructure required for the business of CNG distribution is fixed, the disruption and social costs associated with duplicative infrastructure does not appear to be of a comparable order of magnitude as that associated with duplicative pipelines or (in the case of electricity) transmission lines.

6. More specifically, the following considerations support the conclusion that the distribution of CNG to individual customers or to closely related customers should be left to the open market: there are a number of companies actively marketing themselves in Nova Scotia as suppliers of CNG; the customers for CNG will all be large volume customers who will continue to have alternatives to CNG available to them and who will otherwise have the sophistication required to protect their interests in commercial negotiations with potential suppliers of CNG; and the construction of multiple competing systems for the distribution of CNG to single or closely related customers does not entail the additional social and environmental costs that would be associated with the construction of multiple competing pipelines.

7. It may be true that CNG suppliers in an unregulated market will focus more exclusively on recruiting and supplying the largest customers than might a regulated monopoly supplier who might be under an obligation to serve a broader category of customers (like smaller business and institutions). This review is not able to conclude that this will necessarily be the case. In addition, to the extent that this would be the case, the limitation on the availability of CNG to smaller customers may be offset by the possibility that competing suppliers in an unregulated market may be more aggressive than a regulated monopoly would be (or than it might be allowed to be) in expanding the geographic

boundaries of the CNG market in Nova Scotia. The result might be that an unregulated market would get CNG to more large customers than a regulated market would.

8. The above analysis is reinforced by the approach to the distribution of CNG being taken in other jurisdictions. The information available suggests a consensus among policy-makers that the distribution of CNG does not have the attributes of a natural monopoly. The market for CNG is not regulated in New Brunswick or Prince Edward Island or in the New England states. No information was provided to show that the CNG market is generally regulated beyond the Maritimes or the New England states. The distribution of CNG by regulated utilities is regulated in British Columbia but distribution appears to otherwise be unregulated in that province, i.e. where conducted by unregulated companies. In other words, in British Columbia, the distribution of CNG is regulated where it is done by a regulated gas utility but not otherwise.

9. A supporting consideration is that it may be difficult and perhaps disadvantageous for Nova Scotia to create a regulated market in CNG when this is not the approach being taken in neighbouring jurisdictions. This may deny potential customers of CNG in Nova Scotia the benefit of the synergies that could come from being part of broader distribution networks or systems that cut across provincial and international boundaries. It may result in CNG being less available (or available on less advantageous terms) to Nova Scotia companies than it is to their competitors in neighbouring jurisdictions. It could lead to complex questions about how to limit or construct the regulated CNG market in Nova Scotia to reflect changes in the broader unregulated market for CNG, such as may occur if CNG becomes available in the Maritimes as a fleet fuel in the transportation sector.

10. Finally, on the assumption that a regulated market would be one regulated by the NSUARB, a legislative framework that made the distribution of CNG into a regulated activity for reasons other than a determination that CNG distribution has the attributes of a natural monopoly may take the NSUARB in the direction of becoming a general regulator of a particular energy commodity, i.e. natural gas. This would change the basis of the NSUARB's mandate from being one associated with pipelines (infrastructure that has the attributes of natural monopoly) and the energy service that they provide, into one that equates to being a general market regulator of a particular energy product.

Supporting rationale for the second conclusion: distribution of CNG should be subject to the Gas Distribution Act where it is distributed within or as part of a public gas delivery system

The rationale for the conclusion that the distribution of CNG should be subject to the *Gas Distribution Act* where it is carried out to move natural gas within a gas delivery system that can be accurately described as a ***public*** gas delivery system is as follows:

1. Essentially, all of the arguments for regulation of the gas delivery system that uses CNG would apply to the use of CNG as part of that system. The compression of natural gas, its transportation by truck and its decanting for distribution through a pipeline would simply be stages in the functioning of the broader gas delivery system.

2. Specifically, the capital cost of CNG trailers and the infrastructure that is needed for compression and decanting would be an integral part of the capital costs associated with the gas delivery system as a whole. The relationship between investors of that capital and the consumers to be served by the system created by that capital would be essentially the same as the relationship between investors and consumers in relation to gas delivery systems (or parts of systems) that do not include or depend upon CNG. As explained above, the core aspect of this relationship is the vehicle of a regulated utility with exclusive distribution rights that allows the consumers to fund the high capital costs of getting the service over time and the investors the assurance that they will have the business to secure a return on investment over that longer period of time.

3. In addition, since CNG would be used in these scenarios as part of a gas delivery system that serves the public, all the consumer protection rationales for regulation would apply to gas delivery systems that include CNG trucking just as they do to gas delivery systems that do not rely on CNG trucking. Indeed, given the issues raised relative to the dependability of service in a gas delivery system built around CNG trucking as a bridge between pipelines, the consumer protection rationale for gas delivery systems that use CNG trucking is likely to have unique dimensions and importance.

4. Further, where CNG is used within a public gas delivery system, the regulated status of that system will be important to making the system viable and attractive to potential customers, including some customers who might in the absence of the public system be customers for CNG in the unregulated market.

Supporting rationale for the third conclusion: the unregulated distribution of CNG to customers who have the option of being supplied natural gas by a public gas delivery system should be prohibited

The rationale for the conclusion that the unregulated distribution of CNG to customers who have the option of being supplied natural gas by a public gas delivery system should be prohibited is as follows:

1. From the broad perspective of the public interest, energy consumers as a whole, including potential customers of trucked CNG in the unregulated market, will benefit from the availability of natural gas through public gas delivery systems to as many energy consumers as possible. To the extent that the wider availability of natural gas will contribute to a cleaner environment and to general improvement in the strength of the economy, this public policy priority goes beyond the interests of individual energy suppliers or consumers.

2. There was disagreement among stakeholders as to whether the availability of CNG through an unregulated market would damage or help the sustainability and the expansion of public gas delivery systems. Advocates of economic regulation expressed the concern that the availability of natural gas through unregulated CNG distribution to consumers who might otherwise be large volume customers of existing or proposed pipelines will undermine the economic viability of those pipelines. The basis of the concern is that some or all of the revenue that the pipeline might otherwise be able to generate by supplying gas to these large volume users will be lost to the public gas delivery system that includes the pipeline. This could make acquisition of natural gas through the pipeline more expensive for everyone else than it would be otherwise, which could then discourage others who might otherwise have become pipeline customers from doing so. It could therefore delay or reduce recovery on the investment already made in existing pipelines and undermine the business case for investing in extension of the pipeline into new areas. For all of these reasons, it could adversely affect the interests of current or potential customers of pipelines who would not for practical reasons have the option of acquiring natural gas through the distribution of CNG. The key (and contested) assumption underlying these concerns is that unregulated providers will be able to undersell public gas delivery systems precisely because they do not have to recover the capital costs of building those systems.

3. The alternative perspective offered by some proponents of an open market for CNG is simply that open markets should prevail without restriction. The view was also expressed by some open market proponents that where natural gas is available both through an unregulated CNG market and through a regulated gas delivery system, the former simply will not be able to compete with the latter. The basis for this perspective is that unregulated CNG suppliers will not only be unable to consistently compete with pipelines on price but also that they will not be able to compete with pipelines because of the other kinds of advantages that pipelines provide to customers, such as greater reliability of supply and the avoidance of the need for regular delivery of fuel by large trucks. On this view, where CNG is sold to customers on the open market prior to the availability to these customers of natural gas through a pipeline, these customers will likely become pipeline customers if and when the pipeline reaches them. It was suggested that the contracts that are likely to be

agreed upon between CNG suppliers and their customers are not likely to significantly delay the migration of these customers to the pipeline when it becomes available since the term of such contracts are expected to be in the range of 4 to 5 years. Indeed, on this view, the supply of CNG on the open market will actually facilitate and encourage pipeline extension (where otherwise feasible) by converting large volume customers to natural gas before the decision to invest in pipeline extension is made. These customers can on this view be counted on to become pipeline customers once the pipeline becomes available.

4. This review was not able to reach any definitive conclusion as to which of these competing perspectives will prove to be the correct perspective once a decision is made to allow or to prohibit competition between pipelines and unregulated distribution of CNG relative to customers who would otherwise have a choice between the two. Each perspective suggests that once the decision is made, the consequences will be either generally harmful or generally benign to the public interest in viable public gas delivery systems that are as available on economic terms to as many Nova Scotians as possible. The reality may instead be that either decision might be harmful to this public interest in some applications and benign in others. In addition, whether it is harmful or benign may change over time as the underlying market and technological conditions evolve.

5. Despite this uncertainty, the regulatory framework should provide some measure of protection to the economic integrity of existing public gas delivery systems and to future extensions, at least until there is more reliable evidence than is currently available that such protection is unnecessary. Investors, ratepayers and society as a whole have made a long-term investment in these pipelines that can only be recovered if their economic viability is maintained. This investment includes not only the capital invested into the construction of the pipeline but also the costs incurred by broader society due to the disruption and inconvenience associated with pipeline construction. It also includes the money expended by individual homes, businesses and institutions to enable their connection to the pipeline: the value of this expenditure can obviously only be realized if the pipeline itself continues to exist. The closely associated overriding reason for providing a measure of regulatory protection to the economic viability of existing pipelines is the role that these pipelines play in making a relatively inexpensive and relatively clean fuel available to many more consumers than could be reached by distribution of CNG to individual customers. Although it is impossible to predict with certainty that open competition between regulated pipelines and unregulated CNG suppliers would threaten the economic integrity of existing pipelines, the regulatory framework should provide some protection to the economic integrity of these pipelines in case the availability of CNG through an unregulated market does prove to have adverse implications for their economic integrity. Similarly, the regulatory framework should extend the same measure of protection to proposed pipelines (including those to be supplied by trucked CNG) in order to encourage investment in such pipelines where they are feasible.

6. There are three general approaches that may be taken to instituting this measure of protection. One approach would be a regulatory framework that authorized the NSUARB to intervene and to restrict competition where it determined that competition between unregulated CNG distribution

and the distribution of natural gas through pipelines was or was likely to be adverse to the economic integrity or viability of existing or proposed pipelines. Such a framework would be consistent with the possibility that competition may be benign to the economic integrity of pipelines in some circumstances and adverse to that integrity in other circumstances. It would however be a regulatory framework that would be difficult to design and difficult to administer. It would probably also create considerable uncertainty in the market which could inhibit the availability of CNG to customers who could benefit from its availability. For these reasons, such a regulatory framework is not recommended.

7. A second alternative is a provision in the *Gas Distribution Act* to prohibit unregulated CNG suppliers from distributing CNG to customers anywhere inside the franchise territory of a regulated gas utility. This approach would provide regulatory certainty. But it would also prevent a potentially significant number of potential customers for CNG from open market access to CNG, even though they are not currently on a pipeline and may not be on a pipeline in the near future. Even though they might have access to CNG through the regulated gas utility, they would lose access to the unregulated market enjoyed by other CNG customers who were outside of the franchise territory but who were, like them, unlikely to be on a pipeline in the near future. In the context of a legislative framework that generally leaves distribution of CNG to the open market, such differential treatment of potential CNG customers would be difficult to defend on a sustainable basis. The main reason is that it would be hard to argue that exclusion of these customers from the unregulated market was justified by the public interest in seeing them supplied by a pipeline given the reality that many of them are not likely to be supplied by a pipeline in the near term in any event.

8. Here, it should be noted that there is currently one recognized franchise territory in Nova Scotia, held by Heritage Gas, which covers six counties: Cumberland, Colchester, Guysborough, Hants, Halifax, and Pictou. Within this territory, there are a number of potential customers for CNG that are not currently on a distribution pipeline and that are not likely to be on a distribution pipeline in the near future. It is important to recognize that this is not because of a disinterest on the part of Heritage Gas in expansion of its distribution system to communities such as Truro or to the municipalities of Pictou County. Instead, it is because of the cost of laying pipeline in Nova Scotia given the distribution of population and the physical terrain. It also reflects the decision that Nova Scotia has made to expand the distribution pipeline system only as and where expansion can be largely financed through the revenues that will be generated by the expansion, i.e. from the revenue from the new customers that will convert to gas when the expanded pipeline system makes gas available to them. The basis of this decision is to protect existing ratepayers and the broader economic sustainability of the overall distribution system. These facts explain why “laterals” have not been constructed to Truro or to Pictou County communities and why such laterals may not be constructed in the near future. But given that such laterals have not been constructed and are not likely to be constructed in the near future, these facts do not form a sound basis for treating potential customers for CNG in those communities (or in other communities in the franchise territory not currently served by pipeline) differently from potential CNG customers located outside of the franchise territory.

9. The third alternative for providing a measure of protection to existing and proposed distribution pipelines is a provision in the *Gas Distribution Act* that prohibits unregulated CNG suppliers from distributing CNG to customers who have access to natural gas through a public gas delivery system operated by a gas distribution utility. This provision would focus protection on where it is most likely to be warranted. It would focus protection on situations where the distribution of CNG by unregulated suppliers would come closest to being the equivalent of distribution of natural gas by an unregulated rival pipeline. At the same time, it would limit the number of potential customers for CNG who would be prohibited from accessing the unregulated CNG market. Specifically, it would limit the exclusion of natural gas customers from the CNG market to those who had the immediate alternative of getting natural gas from a gas utility. In most or perhaps all circumstances the utility alternative is going to be cost competitive with the CNG that would otherwise be available from unregulated suppliers. It will have the other kinds of service advantages that delivery by pipeline is always going to have over CNG delivered by large trucks that would (for most customers) have to be accommodated on a frequent basis.

10. The additional rationale for this approach is that it would minimize the extent to which communities that have experienced the disruption and inconvenience associated with pipeline construction are also required to accept the continuing disruption and inconvenience bound to be associated with the delivery on a frequent basis of large cylinders of CNG by large trucks to large industrial, commercial or institutional customers who might otherwise opt to purchase CNG despite the availability of a natural gas pipeline.

11. For all of these reasons, this is the recommended option for protecting the economic viability and integrity of existing and proposed pipelines (i.e. the gas distribution utility) within the context of a generally unregulated market for the distribution of CNG.

12. To avoid any uncertainty on the point, the prohibition of the distribution of CNG by unregulated suppliers to customers who have the option of connecting to a gas distribution utility would apply not only to pipelines in existence at the time of adoption of the provision but also to pipelines (i.e. to public gas delivery systems) that come into existence after adoption of the provision. It would therefore apply to satellite pipelines that would be supplied by CNG, whether established within the existing franchise territory currently held by Heritage Gas or in newly recognized franchise territories established in parts of the Province determined by the NSUARB to be viable candidates for the creation of such satellite systems of gas distribution. In this way, the prohibition should assist the expansion of the availability of natural gas through satellite pipelines to the extent that this is otherwise enabled by the feasibility of large-scale CNG trucking.

13. Implementation of this recommendation will require clarity around the potential CNG customers who will be considered to have an option to access natural gas from a public gas delivery system. Precise definition of this group of potential CNG customers is best left to those tasked with the necessary legislative drafting. The fundamental idea however is that customers would have the

option of accessing natural gas through a pipeline where a pipeline is in such physical proximity to them that have the same option as their neighbours to become a customer of the pipeline, i.e. the gas distribution utility. For example, potential CNG customers who could have natural gas from a pipeline if they (as opposed to ratepayers generally) paid the cost of constructing a lateral from the gas distribution system to their locality would not be deemed to have the option of accessing natural gas from a public gas delivery system. Conversely, potential CNG customers would be deemed to have the option if the only expense they were required to incur to become a customer of a pipeline in their locality was the expense that any similarity situated organization would have to incur in order to "hook up" to the pipeline.

Supporting rationale for fourth conclusion: there should be a five-year review of the legislative and regulatory framework for the distribution of CNG, including to evaluate the impact of an open market for the distribution of CNG to single or related customers on the public interest in the viability of public gas delivery systems and in their expansion

The rationale for the conclusion that there should be a five-year review of the operation of the CNG market in Nova Scotia and of the appropriateness and adequacy of the provisions of the Act relating to the distribution of CNG, including to determine the impact that an open market for CNG is having on the public interest in the viability of public gas delivery systems (i.e. a viable gas distribution utility) and in their expansion, is as follows:

1. The disagreement between those who favour an unregulated approach to the distribution of CNG and those who propose a regulated approach is largely a disagreement about what will happen if CNG is introduced under either alternative. The business of supplying natural gas to large volume customers by CNG is an emerging one, inside and outside of Nova Scotia. There is no way to predict the uptake of this new supply source within Nova Scotia with certainty. Nova Scotia may be in a different position from many other jurisdictions relative to the question of the interplay between regulated gas delivery systems and the unregulated distribution of CNG because the gas distribution system in Nova Scotia is still very much in a developmental stage. In contrast, in many of the other jurisdictions where CNG is being introduced, the regulated gas distribution system is more likely to be at a mature stage of development.

2. Taken together, these circumstances argue for an approach that has the potential to evolve with the conditions on the ground. This potential can be developed by providing for a five-year review of the appropriateness of the regulatory framework in light of what is happening as both the CNG business and the gas distribution utility evolve in Nova Scotia. The NSUARB could be mandated to conduct (or oversee) this review. Alternatively, the review could be carried out by a specially appointed reviewer or panel of reviewers to be appointed by the provincial government. The latter may be the more appropriate option given that the review will go beyond the administration of the regulatory framework to deal with its basic design, a matter ultimately within the legislative responsibility of government.

3. This proposal may raise concern that it will create regulatory uncertainty that will stymie development of the CNG opportunity in all directions. This concern cannot be dismissed out of hand. It is however somewhat mitigated by the selection of five years (as opposed to a fewer number of years) as the appropriate timing for the review. This will help to ensure that the timing of the review will not unduly interfere with commercial relations, given that suppliers and potential customers have said that contracts for CNG would typically be 4 or 5 years in duration. It will also help to ensure that the review only takes place after the market has developed sufficiently to allow meaningful analysis to be done of its longer-term trends, patterns and directions. In addition, the concern about uncertainty may be somewhat counterbalanced by the incentive that the provision for a review may give to market participants to ensure that CNG is introduced into Nova Scotia so as to provide immediate energy price relief to the large users of energy who can benefit from CNG but without hindering the larger public interest in making natural gas available through sustainable public gas delivery systems to as many homes, businesses, institutions and communities as possible.

Appendix

Nova Scotia Department of Energy Compressed Natural Gas Consultation Paper

April 2012

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1.0 Introduction

The Nova Scotia Department of Energy is committed to increasing access to natural gas throughout the province. Heritage Gas holds the only franchise for distribution of natural gas in the province currently. While they have been successful in connecting 3600 customers, and are currently growing at a rate of 23% per year, the majority of Nova Scotia still does not have access to natural gas. Even though the commodity price of gas is low today, building out the pipeline involves high capital costs. To date, Heritage, as regulated by the Nova Scotia Utility and Review Board (UARB), has expanded carefully to increase access to natural gas without unduly burdening current customers. This is an important balance. As the utility matures we expect that the pipeline will expand further throughout the province, but this will take time.

Recently the Department has been approached by several proponents who would like to deliver compressed natural gas (CNG) by truck to consumers in areas of the province that do not have access to natural gas by pipeline. Initially, the business will be focused on larger industrial loads, but as the business develops there is the potential that smaller loads or even residential customers could be served. As more customers convert to natural gas by CNG, there may even be the possibility to extend the pipeline to serve these customers directly in the future.

In situations where the required volume of natural gas is not enough to support the extension of pipeline, there may be an opportunity for CNG delivery by truck. While the cost of trucked CNG will likely be more expensive than that for current pipeline-connected customers, there is enough of a price gap between the cost of natural gas and that of other heating fuels that there are still potential savings for customers. Trucked CNG technology is currently being used in areas of the world with limited natural gas distribution, primarily in South America and Asia, but it is less common in North America. Here it is primarily used in applications of stranded gas supply, or at remote production sites like those for onshore oil and gas. As we continue to develop the natural gas network in Nova Scotia, CNG can be a helpful bridging technology to share the benefits of natural gas with more regions of the province until they have access via conventional pipeline.

This is an exciting opportunity for the province, and the Department is proud to have played a part in fostering the idea. While the legislation and regulations which govern the distribution of natural gas in Nova Scotia mention this technology, they are not clear on how trucked CNG would be regulated under the *Gas Distribution Act* (the Act). There are various reasonable interpretations from proponents of how our laws should apply to this business.

We are undertaking this consultation to receive guidance and input on how trucked CNG should be developed to serve the best interest of all Nova Scotians.

2.0 Opportunity

Natural gas is an important fuel for the future of Nova Scotia. It is currently one of the lowest cost fuel options available. With the development of unconventional gas supplies in North America, the price of natural gas has decoupled from the price of oil and is expected to remain relatively low for at least the next three to five years. Access to natural gas provides an economic advantage to businesses and industry, in particular those with high energy needs. Heritage Gas has indicated that its 3600 current customers receive close to $25 million of savings annually.

Natural gas also burns cleaner and more efficiently than most liquid fuels like furnace oil or No. 6 (Bunker C) fuel oil, with minimal sulphur dioxide, nitrogen oxides, and significantly fewer greenhouse gas emissions.

The Department of Energy continues to work with interested parties to expand access to natural gas throughout the province. In 2010, the Department provided funding to the QUEST Nova Scotia Caucus to explore what, if any, opportunity there is to receive the benefits of natural gas if it is delivered as compressed natural gas by truck to customers who do not currently have access to the distribution network in the province. Several proponents have begun to explore the business opportunity in the province, and have identified to the Department that they intend to bring this service to Nova Scotia.

3.0 Technology

The trucked CNG business operates in a similar manner to that of liquefied propane gas. Specialized trailers are filled with compressed natural gas at a *Compression Station*, they are then hauled by truck to the customer and left on-site at the *Decanting Station*. Here the gas is decompressed for use by the customer. Once that trailer nears empty, a replacement is delivered and the original is brought back to the Compression Station for re-filling. The number of trailers and the frequency of replacement depend on the needs of the customer being served. As the trailers can hold a fixed amount of gas, higher consumption means trailers need to be replaced more frequently. A large customer could require up to eight deliveries per day.

3.1 The Compression Station

The Compression Station consists of the natural gas compression and loading equipment to deliver a high pressure flow of natural gas to the trailers used to transport the fuel to the customer. Gas from the pipeline system is further compressed to maximize the amount of gas that can be transported in a single trailer. The compressors and electronic equipment used are often sold and delivered as a package – mounted and housed on a single skid. The enclosures are built to conform to the CSA B108-00 *Natural Gas Fueling Station Installation Code*. The system as a whole is designed with automatic filling and safety monitoring so the driver can be re-tasked during the filling period, which depending on the requirements of the design can take up to 10 hours.

3.2 Transportation

The trailers used for the transport of natural gas are unique due to the high internal pressures required. To ensure safety, any cylinders used for road transport of gases must receive approval from Transport Canada and conform to the rigorous standards of the *Transportation of Dangerous Goods Act* (TDG). Manufacturers of cylinders and trailers are required to ensure they meet all appropriate standards, codes and conditions.

Currently, traditional steel cylinders (Type 1) are the most common choice for the delivery of CNG. A number of Canadian companies manufacture approved steel cylinders for this purpose. They are typically the least expensive option to purchase, but are also the heaviest and carry the smallest capacity of CNG per unit – which increases delivery frequency, and can limit the roads they are allowed to travel on throughout the province. Some manufacturers are developing lighter composite-based cylinders (Types 2-4) for this purpose. Many of these are still pending Transport Canada review, though the Floating Pipeline Company (FPC Inc.) based in Halifax with manufacturing in New Brunswick, has received approval for its cylinders.

Regardless of technology, the fleet of trailers required to reliably deliver CNG is often the highest capital cost of the project.

3.3 The Decanting Station

The Decanting Station is located near the end-user of the natural gas. This station must have at least two off-loading bays to allow a second full trailer to be dropped off before the first is empty. To prevent freezing due to the temperature drop associated with decompression, the gas is preheated using a small gas-fired heat exchanger. The Station will be required to conform to all necessary codes, standards and regulations. Gas flow can be automatically monitored to ensure safety and a consistent supply of gas to the customer. These stations are smaller and less expensive than the Compression Station, and may even be able to be re-located should a customer no longer require CNG delivery service.

The Decanting Station can be used to serve a single customer, or a small local network of distribution pipelines. While the former may be easier to manage the timely delivery of CNG trailers, a small distribution network could serve more and smaller customers and could even serve as a pre-build in advance of access to piped gas.

4.0 Natural Gas in Nova Scotia

The distribution of natural gas in Nova Scotia is governed by the *Gas Distribution Act*, last amended in 2002 with the purpose to:

> "*a) provide a framework for the orderly development and operation of a gas delivery system in the Province; and*
>
> *b) allow for fair competition in the sale of gas for consumption in the Province*"

The Act and associated regulations set out the current structure of the natural gas market in the Province. Traditional pipeline distribution of natural gas is regulated by the Nova Scotia Utility and

Review Board and requires a gas distribution company to hold a franchise for the geographic area they serve.

The natural gas market in Nova Scotia is still fairly young, with extensive capital outlays required to build facilities and pipelines to deliver gas from the Maritimes and Northeast Pipeline to end-users. Currently Heritage Gas is the only franchise holder in the province, with distribution primarily in Halifax Regional Municipality and Amherst.

4.1 Heritage Gas

In 2003, Heritage Gas was granted the franchise in all or parts of Colchester, Cumberland, Guysborough, Halifax, Hants and Pictou Counties to build and operate a gas distribution system. Since 2004 it has connected over 3600 customers in HRM, and Amherst and continues to grow by about 20 percent per year. Heritage recently announced plans to connect the Oxford Frozen Foods plant in Oxford to natural gas through a lateral off of the Maritimes and Northeast Pipeline.

As a franchise holder, Heritage Gas has the obligation to serve as many interested customers within its franchise area as economically possible. The build-out of the gas distribution system is capital intensive, and in order to ensure rates remain competitive Heritage Gas has recovered less than the full cost of service from customers; the shortfall in recovery of the revenue requirement is deferred to a Revenue Deficiency Account (RDA). The RDA is a regulatory mechanism which allows Heritage to temporarily defer some costs to develop the greenfield distribution system without placing undue burden on existing customers. The RDA was capped by the UARB in 2011 which serves to protect customers but may limit the ability of Heritage Gas to expand to less economic areas in the short term while the RDA remains near the cap. However, Heritage has noted that in 2012, the RDA is no longer growing, and will begin to decline in future years.

In order to serve any new customers, Heritage Gas must be able to show to the UARB that the project will be profitable using an approved two-part economic test. For residential customers, this test has often restricted access to natural gas to those customers who are in the immediate vicinity of a distribution line serving a large anchor load customer. While this can slow growth, it again protects existing customers, and ensures that Heritage is able to continue to offer economic rates of service.

It is also important to note that the rates approved by the UARB for Heritage Gas are designed to prevent cross-subsidization of different rate classes. Heritage Gas recovers from each rate class only what it costs to serve that class, so industrial users are not unnecessarily subsidizing connection of residential customers, or vice versa.

5.0 Consultation

The Department of Energy has been approached by several proponents who would like to deliver CNG by truck to customers in Nova Scotia that do not have access to natural gas by pipeline. The initial focus is on larger industrial loads, though as load is built there may be an opportunity to serve smaller loads and residential customers, subject to the proponent having or obtaining a natural gas distribution franchise. Even with the increased costs related to capital, compression and transportation, CNG is currently projected to be a lower cost option than other fuels such as furnace oil, or even No. 6 fuel oil. To punctuate this, on April 2, 2012 Heritage Gas announced that they had reached agreement with Minas Basin Pulp and Power and CKF Inc. of Hantsport to supply trucked CNG to their operations in 2013, pending all necessary approvals.

There are other suppliers interested in offering a similar service in Nova Scotia, however there is no consensus on how, or even if, this activity is governed by the *Gas Distribution Act* and regulations. Conflicting opinions over the treatment of CNG trucking under the Act have raised the questions on which we are seeking input.

The Department will be holding a number of targeted stakeholder conversations with interested proponents, potential customers, and interested municipal units to develop a full understanding of the issues prior to recommending an appropriate policy direction for Nova Scotia. We will also be accepting written comments until the deadline of consultation via our website. Any changes to the legislation or regulations will be considered in light of the comments we receive.

5.1 Schedule

The Department will be commencing its consultation in April 2012, with milestones as follows:

1. Beginning of Consultation – April 19, 2012
2. End of Consultation – May 11, 2012

5.2 Scenario Development

In preparation for this consultation, the Department has prepared three possible scenarios for consideration by stakeholders, and outlined a number of policy considerations for each. These scenarios are not exhaustive, and through consultation we may receive input which shapes a different solution for the province. The scenarios presented below are solely for your consideration to begin to frame the discussion.

Scenario One: Delivery of CNG by truck is fully regulated under the *Gas Distribution Act*

- Companies interested in delivering CNG must receive a franchise for the geographic area they will be serving. An existing franchisee must apply to the UARB to amend/extend their franchise, while new proponents must apply for a new franchise, meeting the requirements of the Act.

- Rates will be regulated by the UARB, meaning greater regulatory complexity for the proponent, but increased security for customers.
- Regulated rates would prevent subsidization of CNG customers by existing distribution customers.
- As the existing franchise holder in Nova Scotia, Heritage Gas would be able to further develop its customer base, and as a regulated utility with an obligation to serve, may be able to connect other customers (including residential) to the CNG distribution system – or, once sufficient load is developed, may be able to expand the pipeline to these customers.
- No competition for natural gas delivery within the franchise area.

Scenario Two: Trucking of CNG is no different than propane distribution, and the market should be allowed to operate freely.

- Open competition between CNG providers.
- Less regulatory complexity for proponents, but less recourse for customers.
- Another supplier serving a significant load may impede Heritage Gas' ability to extend the pipeline to that area to serve smaller commercial and residential customers.
- As the distribution of natural gas by pipeline is defined in the *GDA*, a single decanting station could only ever serve a single customer.
- Without an obligation to serve, another supplier may not have an interest in connecting smaller loads like residential customers.

Scenario Three*:* Hybrid of the first two scenarios – CNG could be regulated within territories that have the potential for broader distribution. Outside these territories, trucking of CNG would not be regulated under the *GDA*.

- Allows Heritage Gas to build load in areas which may have access to pipeline within a reasonable period of time.
- Creates open competition in rural areas of NS without impending access to pipeline.
- Increased governmental complexity – how do you define the territories?
- Potential for disparate prices between the regulated customers and the competitive customers, beyond that created by increased distance to the compression station.

5.3 Targeted Questions

1. Should CNG be separate from the *Gas Distribution Act* and be managed in the same manner as propane or fuel oil? Why or why not?

2. Should CNG be included in the *Gas Distribution Act* as conventional natural gas is currently? This would require a franchise to distribute CNG. Why or why not?

3. How best might we balance the desire for wider access to natural gas, and the lowest delivered cost of energy? Do the benefits of broader natural gas access outweigh a higher potential cost per unit of energy? Why or why not? At what point does this balance shift?

4. Are there other considerations which you believe are important to understand as part of this process?