June 20, 2016

BY EMAIL & BY COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St, Suite 2701
Toronto ON M4P 1E4

Dear Ms. Walli:

Board File No. EB-2016-0004
Natural Gas Service – Community Expansion Proceeding
Energy Probe – Submissions to the Board

Pursuant to Procedural Order No. 3, issued May 30, 2016, please find attached the Submissions of Energy Probe Research Foundation (Energy Probe) in the EB-2016-004 proceeding.

Should you require further information, please contact us.

Yours truly,

David S. MacIntosh
Case Manager

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EB-2016-0004

Ontario Energy Board

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch. B, as amended;

AND IN THE MATTER OF a Generic Proceeding on Natural Gas Expansion in Communities that are not served.

ENERGY PROBE RESEARCH FOUNDATION
("ENERGY PROBE")

ARGUMENT

June 20, 2016

Ontario Energy Board

Generic Proceeding on Natural Gas Expansion in Communities that are not served

EB-2016-0004

ARGUMENT OF ENERGY PROBE RESEARCH FOUNDATION

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1. **Executive Summary:**

1.1 The current regulatory principles regarding the expansion of Ontario's natural gas distribution network -- as defined in the OEB EBO 188 Guidelines -- have been in place for nearly 20 years. The principles embedded in that regulation, which centered around the "no harm" principle to a utility's existing ratepayers, are just as relevant today as they were when they were established in 1998. Contrary to claims that the "circumstances have changed"[1] and "we're in a different environment now"[2], existing ratepayers need just as much protection from being used as a subsidy support program for uneconomic expansion as they did in the 1990s. In that regard, the "circumstances" surrounding economic and equitable regulation are no different now than they were two decades ago.

1.2 The OEB's mandate is one that "protects" the interests of gas consumers, facilitates the "rational" expansion of the gas distribution grid and maintains a "financially viable" gas industry[3]. The EBO 188 guidelines are a key component of this mandate and the Board has done an excellent job in providing economic regulation of the gas sector. In Energy Probe's opinion, none of the parties involved in this proceeding, particularly the incumbent utilities, provided a compelling reason for what has significantly changed in the regulatory landscape that we should abandon this form of economic regulation and, instead, use utility bills as a source of funds for the social benefits that may arise out of the uneconomic expansions.

1.3 Furthermore, the expansion of the natural gas sector hasn't been a failure or a dud -- far from it. Since the 1990s, Union has added 500,000 new customers, while Enbridge has connected to its network an additional 1,000,000 customers[4]. Enbridge continues to connect more than 30,000 new customers a year[5], double the amount of forecasted customers the utility expects to be added in its Community Expansion program over the next decade. Union also continues to add new customers.

1.4 The new customers that have been added under the existing EBO 188 guidelines came at no expense to existing ratepayers, although very limited cross subsidies among new customers were allowed. This has ensured rate increases for existing customers have been manageable and attractive over the last two decades. The positive economics of using natural gas for home and hot water heating -- as well as industrial and commercial uses -- compared to other forms of energy, demonstrates how well the sector has been regulated[6]. The OEB should not open the door for the utilities -- at the request of the province -- to weaken that economic advantage enjoyed by existing customers by applying a "reasonable" subsidy charge to bills.

[1] Transcript Volume 5, page 151
[2] Transcript Volume 1, page 173
[3] Ontario Energy Board Act, Board Objectives, gas
[4] Transcript Volume 5, page 153
[5] Energy Probe Interrogatory, #3
[6] Evidence of Enbridge Gas Distribution, Table 1

1.5 The real rationale for either scrapping or loosening the current expansion guidelines comes from the province and the stated social benefits of bringing cheaper home energy costs to communities currently not connected to the gas grid[7]. The province has announced that it will make available $230 million in loans and grants to help achieve that goal. While the stated goal of lowering energy costs for residents and businesses is commendable, that money should come from government revenues, which would include all taxpayers in the province. Limiting the funds for Community Expansion to natural gas customers places the burden of funding a provincial social program exclusively on a limited number of Ontario citizens-- ironically on those who, by definition, won't directly benefit from the expansion.

1.6 If, the social benefits of a program benefits the province at large, as both the province and the utilities have stated, then everyone should contribute to it[8]. A larger base of taxpayers would further dilute the impact of the subsidy on households and businesses.

1.7 The Community Expansion program, as has been pointed out by numerous parties throughout this proceeding, pushes the Board to employing a "pick the winner" form of regulation[9]. Alternative forms of energy, such as propane and geothermal, won't have access to the same subsidies as the natural gas utilities and so will be operating at an economic disadvantage in either maintaining or expanding their operations. Businesses and homeowners across the province who have likely paid a premium to live or operate in areas that are connected to the gas grid could also see the value of their investments decline. In a competitive market, buyers -- either businesses or residential customers -- base their investment decisions on a number of economic factors, particularly energy costs. Relaxing the EBO 188 Guidelines distorts those decisions.

1.8 The market is, contrary to claims throughout the proceeding of a market failure, operating as exactly as it should:

- The regulator is ensuring that utilities aren't expanding to areas where it is uneconomic to do so at the expense of current ratepayers.
- Existing ratepayers, who are in most cases unable to switch providers, are not being used as a means to fund that uneconomic expansion.
- Customers and businesses operating in rural or remote jurisdictions are paying a higher price for energy, as the cost to service them is higher.
- The province is moving ahead with policies that address the environmental concerns surrounding fossil fuels.
- The province has announced plans for loans and grants to cover the high cost of expanding the gas distribution system to rural and remote communities.

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[7] Transcript Volume 1, page 172

[8] Transcript Volume 1, page 32, Enbridge states that the social benefit is $234 million. Also on Evidence of Enbridge, Table 10.

[9] See the comments in Transcript Volume 5, page 6 and Transcript Volume 5, page 61.

1.9 Our recommendation: The evidence presented throughout the proceeding showed that there is neither a regulatory nor amarket failure in Ontario's gas sector -- quite the opposite. The evidence clearly showed that the regulation of the sector has performed so well compared to other forms of energy, particularly electricity, that the economic attraction of natural gas has, in many cases, grown stronger. While the social benefits of switching to gas may be large, the cost of that conversion should be done through provincial revenues, not utility bills. The province has stated that it believes that expanding the gas network to rural and remote communities is worth $230 million in grants and loans. The Board should work within the bounds of the financial opportunity offered by the provinceand maintain the current form of economic regulation.

2. Current Regulatory Landscape:

2.1 Between 1987 and 1998, the expansion of the natural gas system in Ontario was governed by the EBO 134 Decision (1987), which standardized the economic viability tests being used by the three incumbent Gas Utilities. These guidelines provided a three-stage test to apply to expansion projects:

- Stage 1 Discounted Cash Flow (DCF) profitability analysis
- Stage 2 Discounted Cash Flow analysis on the direct benefits of connecting customers
- Stage 3 Net Present Value (NPV) analysis that addresses the indirect, wider social economic benefits of the expansion

2.2 The EBO 134 Framework still forms the basis of the Board's Filing Guidelines for Natural Gas Transmission Pipelines (2014).

2.3 The EBO 188 Guidelines were issued in 1998 by the Board following three years of regulatory proceedings, including two settlement proposals. The EBO 188 economic test mirrors, in large part, the EBO 134 Stage 1 test, but excludes the Stage 2 and 3 tests. The predominant objective in creating the EBO 188 Guidelines was to establish the regulatory principle of "no harm" to utility ratepayers. This, as was indicated in the decision issued by the Board, required that rates were just and reasonable and any subsidy from existing ratepayers for system expansion was "not undue".

2.4 The principle outcome of the EBO 188 proceeding was a standard test that detailed the economic viability of system expansion projects. Each gas utility was required to maintain a Rolling Project Portfolio with a minimum Profitability Index (PI). The Investment Portfolio would have a PI greater than 0.8, while the Rolling Project Portfolio would have a PI of greater than 1.1.

2.5 Since 1998, the Expansion of the Union and Enbridge Distribution systems have proceeded under the EBO 188 Guidelines.

2.6 If an expansion project did not meet the established economic tests, a Contribution in Aid of Construction (CIAC) was required in order to bring the project's minimum PI to 0.8. The CIAC was collected from new connecting customers, municipalities or a combination of both. The CIAC was treated by the utilities as a contribution to the capital cost of a project. As a result it reduced the up-front cost and lowered the incremental rate base, the revenue requirement and rates.

2.7 The focal point of this hearing is to review whether the Board's current EBO 188 System Expansion Guidelines have are creating a barrier to the further expansion of the natural gas system into rural and remote communities. And if so, what steps can be taken by the Board to address this.

3. What are the Utilities Proposing?[10]:

3.1 Enbridge's proposal consists for five key components:

- The creation of a Community Expansion Portfolio (CEP) that would maintain a PI of 0.5 or greater and would include an exemption from EBO 188
- A system expansion surcharge of 23 cents per cubic meter -- on top of normal distribution charges -- for all new customers in the Community Expansion portfolio. The surcharge would be applied for up to 40 years.
- A surcharge applied to all existing customers.
- An Incremental Tax Equivalent (ITE) to collect municipal contributions
- A capital pass-through to immediately incorporate the new projects into rates.

3.2 Enbridge expects that, in total, its Community Expansion proposal would attach more than 16,246 new customers to the natural gas system[11] . Over the life of the Community Expansion projects, Enbridge will collect $427 million from new CE customers and an additional $439 million from existing customers[12]. The total capital costs of the CE program are $410 million.

3.3 Similar to Enbridge, Union's proposal consists of five key elements:

- Community Expansion projects that have a PI of greater than 0.4.

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[10] See Enbridge response to SEC interrogatory #3.
[11] Energy Probe IR #1
[12] Transcript Vol 1, page 5 and SEC IR #22

- A Temporary Expansion Surcharge (TES) of 23 cents per cubic meter -- on top of normal distribution charges -- for all new customers in a Community Expansion project. The surcharge would be applied for 4 to 10 years, beginning from when the project enters service.
- A surcharge applied to all existing customers.
- An Incremental Tax Equivalent (ITE) to collect municipal contributions
- A capital pass through to immediately incorporate the new projects into rates.

3.4 Union expects to extend natural gas service to 33 communities and 18.373 new customers through 29 separate projects. The capital cost of Union's proposal is $135 million, compared to $410 million for Enbridge[13]. One major difference between Union's proposal and Enbridge, is that Union will not establish a separate portfolio for Community Expansion projects. Instead it will roll these projects in with other expansion projects on the basis that their rate impact will be limited to a ceiling of $2 per year and a minimum PI of 0.4.

3.5 In contrast to Union and Enbridge, EPCOR has proposed that the Board establish and administer an Expansion Reserve. This reserve would be funded by applying a small volumetric surcharge to all provincial sales of natural gas.

4. Why Energy Probe Believes the Board Should Not Loosen EBO 188 Guidelines:

4.1 The intention of EBO 188 and the economic regulation of utilities in general -- public or private -- is to ensure the economic viability of both expansion projects and the utility as a whole, particularly in situations where that utility acts as a monopoly. The EBO 188 guidelines, as was detailed in the proceeding[14]were explicitly to prevent existing customers from being used to finance a subsidy program that would allow gas utilities to expand their operations, their rate base and, subsequently, increase the dollar amount of their return. The EBO 188 approach to regulation was established in the interests of ratepayers, not the utilities. We heard no compelling reason why this regulatory environment should change.

4.2 Both Enbridge and Union are now proposing that the Board do the exact opposite. In the case of Enbridge, the majority of projects that make up its Community Expansion proposal would only recover 40% of their total costs, leaving 60% to be picked up by existing ratepayers[15]. That amounts to $123 million (NPV) to be paid for by existing ratepayers. In Union's case, the tab to be picked up by existing ratepayers is $68 million[16]. Again, it's PI level

[13] Transcript Volume 4 page 175
[14] Transcript Volume 5, page 151
[15] Transcript Volume 1, page 27
[16] Transcript Volume 5, page 127

would be allowed to go as low as 0.4, meaning some projects would recover only 40% of their costs.

4.3 The argument for why the OEB should relax the EBO 188 guidelines from one that protects existing ratepayers to one that financially harms them is two-fold: overarching provincial policy and the social benefit of lower energy costs.

4.4 First, none of the provincial documents presented as evidence detail a clear direction from the province that the OEB should allow existing ratepayers to subsidize the grid to uneconomic parts of the province[17]. The province asked for the Board to "examine opportunities" to expand natural gas, it didn't explicitly detail how to do it. While the utilities have done a very good job in providing plans that would expand gas to communities currently not served, there's no explicit reason why those proposals should be the only option (as well as EPCOR's for a universal fund). The Board could also consider using the $230 million in loans and grants that the province has committed as the foundation for any expansion program, rather than charging existing customers. It could also ask the incumbent utilities to accept a lower ROE on their community expansion portfolios.

4.5 Secondly, many of the parties involved in this proceeding provided compelling evidence that natural gas wasn't even the cheapest choice for households looking to lower energy costs. Geothermal, for example, was said to "deliver a similar result, have a lower environmental impact, and leave money left over"[18] compared to the proposals by the gas utilities. Neither of the gas utilities strongly argued against that position. There was also a significant dispute over how much cheaper natural gas is -- when the very significant capital costs that it would entail expanding to CE communities are included -- compared to propane.

4.6 The gas utilities have argued that communities regularly approach them asking to be connected, but then often balk at the cost of doing so[19]. That, to us, clearly shows that in many cases the municipalities are only considering the very obvious lower monthly and annual costs energy costs for customers in their community, while ignoring the much larger cost of delivering the gas there in the first place. The Board needs to decide if there are better ways to correct that informational gap, rather than implementing a cross subsidy program.

4.7 Even still, some of the evidence presented by the utilities shows that, while the capital costs are high for many of the CE projects, the economics of natural gas are so strong that over the long-run, many customers will come out ahead -- highlighting that the real problem may be an informational one (in some cases). For example, in the case of Enbridge, customers in its CE portfolio will benefit to the tune of $357 million -- or about $22,000 per customer -- in form of

[17] Transcript Volume 4, page 193
[18] Transcript Volume 5, page 64
[19] Transcript Volume 1, page 60

lower energy costs[20]. In Union's case, the value to expansion customers in lower energy costs is $313 million -- or $34,000 per customer[21]. It's not clear to us why a market -- or the utilities themselves -- can't solve that paradox.

4.8 In short, there's no clear evidence that the province has directly expressed a policy shift towards cross subsidies between existing and expansion customers; that natural gas is the cheapest and cleanest form of energy for rural and remote communities; or that the economics of natural gas are so positive that there aren't other, market-oriented options for connecting many communities to the gas system.

4.9 Relaxing the EBO 188 guidelines or offering the utilities exemptions from it may create market distortions far beyond the natural gas sector. As discussed in the Executive Summary, both Union and Enbridge continue to add tens of thousands of new customers each year. Clearly, developers and businesses see the attraction of building communities or operations in areas where they can economically attach to the gas system. They are responding to a market signal. Using existing ratepayers as a base to pay for Community Expansions distorts that signal and results in a transfer of wealth from some households and businesses to others. Those developers, homeowners and businesses that paid a premium to be near the gas distribution system will see that premium eroded[22].

4.10 While there may be overall social benefits in lowering energy bills, those savings could be offset in the lowering of property values or business investments in other parts of the economy. None of the utilities presented evidence that quantified that loss. Furthermore, none of the evidence presented accounted for the rise in property values to homes that now have access to gas, which may offset some of high cost of delivering gas to CE communities after they find a way to pay for the high upfront capital costs of delivering gas to their community.

4.11 Both Union and Enbridge also argued that the impact of their CE proposals on monthly bills for existing customers is "reasonable". In the case of Union, its Community Expansion program could add an additional 6% to 7% to distribution rates over time. If combined with the utility's DSM programs, that figure could reach into double digits[23]. In essence, the utility may be asking its customers to pay 10% or more for the delivery of their gas, yet that cost will have nothing to do with the actual cost of servicing that customer.

4.12 The Board must also consider the impact that provincial policies -- Cap and Trade and the various electricity subsidies embedded in the recently released five-year Climate Change Action Plan -- will have on the economics of natural gas compared to other forms of energy. Those costs and subsidies, according to preliminary estimates, might not be trivial. The Board

[20] Transcript Volume 1, page 30-31
[21] Transcript Volume 5, 119-120
[22] See the discussion on page 3-6 in Transcript Volume 5
[23] Transcript Volume 6, page 76

should consider whether it's appropriate to add additional costs to existing gas ratepayers, while provincial policies are doing the same. The resulting rate impacts could be significant in percentage terms. Furthermore, as was raised repeatedly throughout this proceeding, any uneconomic expansion of the gas grid that occurs at the same time that provincial policies may act to reduce overall gas demand, increases the risk of stranded assets. This could impose even more costs on existing ratepayers.

4.13 One of the most common arguments for a cross subsidy program from existing customers to Community Expansion projects, particularly from Union, was that it was more "administratively simple" in regards to regulatory costs than other programs, such as a provincial fund[24]. Yet neither of the utilities presented any sort of cost-benefit analysis on whether a cross subsidy model -- as they were proposing -- would be any less onerous or entail lower regulatory costs than other CE funding proposals, such as a provincial wide fund overseen by the Board. Furthermore, that "administrative simplicity" clearly becomes more complicated if the program is expanded so that all gas customers -- including those of other gas utilities in Ontario -- also had to contribute in some form[25]. The simplicity argued by Union would only be a possibility if the Board ensured that only ratepayers of those two utilities were responsible financing a social program that was province-wide.

4.14 Relaxing the EBO 188 guidelines results in a transfer of risk from ratepayers to gas utilities. If, for example, the utility over-forecasted the number of customers that it expected to attach to the new gas expansion, the cost of that -- the capital cost that must be recovered from a smaller pool of customers -- would fall, largely, to existing ratepayers[26]. In fact, Enbridge, admitted that there are "no incremental risks" to the company from the Community Expansion program[27]. Yet, both it and Union will benefit from growing their rate base and the monetary value of their assets on which they can earn a ROE. The only benefit to existing ratepayers, according to the utilities, is that at some future point the CE projects may help lower the fixed costs of maintaining the entire grid -- even though some projects , even after 40 years, still won't have recovered their capital costs[28].

4.15 The concept of discrimination was raised during the proceeding[29]. Yet, all of the proposals from the utilities carry their own set of discrimination. Why, for example, should only natural gas customers pay to lower energy costs for rural and remote communities when the benefits, according to the utilities, are largely province-wide? Isn't that discriminatory? Why, if the Board chooses the proposals of Union and Enbridge, are only ratepayers of those utilities on

[24] Transcript Volume 2, page 44
[25] See Dr. Yatchew's comments in Transcript Volume 7, page 48-49 for why the cross subsidy proposals may not result in lower regulatory costs.
[26] Transcript Volume 1, page 32
[27] Transcript Volume 1, page 48
[28] Transcript Volume 1, page 147
[29] Transcript Volume 2, page 17, among others.

the hook for the cost of this program and not other gas customers? Isn't the cross-subsidy itself discriminatory, as it ensures that the cost of a social program is only borne by one segment of society? And if the Board were to limit the cost of the program to existing gas customers of $2 a month, isn't it discriminating against the communities that sit on the "other side of the fence" -- where it will cost $2.01 to service? At one point does the "reasonable" cost to existing ratepayers become discriminatory towards communities that can't be accommodated in the Community Expansion proposal?

4.16 The least discriminatory model, in our view, is the current EBO Guidelines, which ensure that all customers pay the cost of service and expansion (though minor cross subsidies are allowed between new projects under the guidelines). There is nothing discriminatory under the current guidelines, as all rural communities can take out loans, raise taxes or use other forms of financing to pay the high cost of expanding the gas system to their community. Businesses and other large users can decide if the lower cost of gas is worth the additional cost of establishing their operations in more dense parts of the province where land may be more expensive.

4.17 While we are not lawyers and won't comment on the legality of whether the Board has the authority to establish a framework where customers of one utility subsidize the expansion of programs of another utility, we do want to highlight an interrogatory response provided by Union Gas. In a Supreme Court of Canada Decision (Ontario Energy Board v. Ontario Power Generation), dated September 25, 2015, Justice Rothstein explained the concept of "just and reasonable rates" as follows:

"[i]n order to ensure that the balance between utilities' and consumers' interests is struck, just and reasonable rates must be those that ensure consumers are paying what the Board expects it to cost to efficiently provide the services they receive, taking account of both operating and capital costs. In that way, consumers may be assured that, overall, they are paying no more than what is necessary for the service they receive, and utilities may be assured of an opportunity to earn a fair return for providing those services."

4.18 The issue with postage stamp rates -- and the inherent cross subsidies they entail -- was raised repeatedly throughout the proceedings. The justification for postage stamp rates is that the Board -- and the gas utilities -- largely agree that having millions of different rates would entail such large regulatory costs that it would be prohibitive and would cost all customers more in the long run. Neither Union nor Enbridge provided any evidence that postage stamp rates pass prohibitive costs on some ratepayers to the benefits of others. We expect that in most cases, the cross subsidies are negligible, though we would reconsider that position if the utilities provide evidence to the contrary. Furthermore, while postage stamp rates mitigate regulatory costs, the CE proposals would increase them.

4.19 And finally, as we have stated earlier, and we raised in the cross examination[30], the most compelling reason expanding the gas sector to parts of the province where it is uneconomic to do so is because of the social benefits that it would produce -- primarily in the form of lower energy bills and, in some cases, a more reliable source of home heating. While in some situations the economics of natural gas versus other forms of energy isn't immediately evident (geothermal, for example), we think it's clear that in many cases the economic proposition for natural gas is a strong one. The province, in putting $230 million on the table to help expand the gas system, obviously agrees to some extent.

4.20 We don't see any reason why those social benefits outweigh the social benefits of the good economic regulation that has occurred in the gas sector for decades. That regulation has very likely contributed to ensuring that natural gas remains a highly economic and compelling option in the energy decisions facing both households and businesses across the province. If the social benefits are as clear as both the utilities and the province have indicated, there is a very strong incentive for the province to increase the funds available for the expansion of natural gas.

5. Other Considerations Regarding Community Expansion Proposals

5.1 Both of the utilities are proposing a surcharge of 23 cents per cubic meter -- known either as the TES or SES -- for new CE system gas customers. It is not clear through the proposals if new connecting customers are required to choose the utility supply system gas option, rather than with a direct purchase (gas broker), and what happens to the surcharge in the latter case. In other parts of Ontario, gas customers are free to select their supplier of gas. The Board has supported this choice even for small volume customers. The Board should be concerned that any customer commodity surcharge proposal that does not also include direct purchase customers or eliminates the choice of gas supply is not appropriate. A more appropriate option, if the Board were to inclined to agree to the proposals, would be a distribution rate surcharge.

5.2 A more complete definition of a "community" would contain a density component. Union and Enbridge define a community as a natural gas system expansion project connecting a minimum of 50 existing homes and business and where the economic feasibility guidelines allow for a PI of less than 1.0. Yet, that definition doesn't consider the three main capital components in a discounted cash flow -- pipeline costs to the Community Gate station, Gate station and metering, and service line and meters.

5.3 If the density is well below the average for other CE projects and the connection costs are significantly higher, a specific CIAC should be required. Otherwise, not only existing customers but new CE customers will subsidize others. A density definition in conjunction with a distance-based cost from the existing transmission/distribution pipeline would be a better definition than the over-simplistic 50 homes criterion.

[30] Transcript Volume 7, page 40

5.4 In regards to the EBO 134 guidelines and the Filing Requirements for transmission projects, the Board should review the analyses undertaken by Enbridge and Union and require standard input assumptions -- such as using the same discount rate -- and methodology between the utilities. Yet, considering that the inherent inaccuracies involved in forecasting and quantifying broad social benefits, the Board should continue to put greater emphasis on the Stage 1 test.

5.5 As stated many times throughout our argument, the EBO 188 Guidelines should continue to be the regulatory Framework for Distribution System expansion projects and accordingly, there should not be any costs excluded.

5.6 None of the incumbent utilities addressed the high cost of conversion that many potential customers will face in every Community Expansion project. This may be because neither they, nor their affiliates, operate in conversion equipment businesses and so have no expertise in the area. However, they do not appear to have engaged any HVAC industry representatives in seeking solutions to this critical issue. The Board should consider the fact that relative to paying any surcharge for the cost of the connection to the utility distribution system, conversion costs of up to $4,500 per home are very significant. If mitigation is required, some combination of financing by HVAC suppliers and government loans could assist. The question is whether this should be a general provision or special provision for CE communities only.

Respectfully Submitted at Toronto, June 20, 2016

Energy Probe Research Foundation