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### **BY EMAIL and RESS**

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Our File No. EB-2012-0410

Ontario Energy Board  
2300 Yonge Street  
27<sup>th</sup> Floor  
Toronto, Ontario  
M4P 1E4

### **Attn: Kirsten Walli, Board Secretary**

Dear Ms. Walli:

### **Re: EB-2012-0410 – Revenue Decoupling – SEC Submission**

We are counsel for the School Energy Coalition. Pursuant to the Board's letter dated April 3, 2014, this letter constitutes SEC's submission with respect to the Board draft report "Rate Design for Electricity Distributors" dated March 31, 2014 (the "Draft Report").

### **Interest of Schools**

1. The Draft Report focuses on two rate classes: residential and GS<50. The initial question, therefore, is the interest of schools in rate design affecting those two classes. Schools have both direct and indirect interests in these issues.
2. **Direct Interest.** About a quarter of the province's 5000 schools are in the GS<50 class, generally smaller schools that are relatively large members of that class. A shift in the fixed/variable ratio for that class will directly increase or decrease the distribution bills for the province's school boards.
3. Generally speaking, the impact of the Board's proposals is likely to be a decrease in the distribution bills for schools in the GS<50 class, since increasing the fixed charge ratio



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generally benefits the larger members of a class at the expense of the smaller members of the class. While the information currently available does not allow any accurate estimate, it is possible that school boards would see their bills drop by a million dollars a year or more if the Board's proposals were implemented.

4. This may be in the interests of school boards in the short term, but not in their interests in the long term. It is never in the long term interests of ratepayers to build unfairness into the rate structure. Having the corner store subsidize the local elementary school may seem like a good thing, but in the long term hidden subsidies like that hurt all ratepayers.
5. It may therefore be in the direct interest of school boards to forego this kind of rate structure, in order to prevent long term disadvantage.
6. **Indirect Interest.** The bigger reason SEC is involved in this proceeding is that all ratepayers have a strong interest in rate-making based on solid and justifiable principles. If the Board changes its principles of rate design for residential customers, for example, those new principles become a precedent that could, and probably would, be applied to other rate classes in the future.
7. These submissions, as with past SEC submissions in this area, focus on the underlying principles. SEC's main concern with the Draft Report is that it appears to propose changes to the Board's rate-making principles, without addressing those changes and their implications head-on.
8. **Past Involvement in the Subject.** The Board will be aware that SEC has been actively involved in the issue of revenue decoupling for some time. In EB-2010-0060, SEC participated fully, including extensive comments focusing on allocation of risk and price signals.
9. Subsequently, we have a number of times raised our concern (for example, in our RRFE submissions) that the Board's suspension of the Revenue Decoupling process should end, and the subject should be revived. SEC is glad to see the Board once more tackling this difficult issue.
10. It is important to note the genesis of this series of consultations. Distributors (both gas and electric) have expressed concern that, through a combination of conservation programs, changes in codes and standards, and advances in technology, there may be ongoing attrition in their consumption per customer figures. This erodes their volume-driven revenue, despite the fact that in the near term their costs to serve those customers are not falling, or at least not at the same rate.
11. All customers have a vested interest in making sure their electricity distributors have sufficient revenues to manage and maintain the electricity infrastructure that serves us all. Declining consumption per customer will, in the very long term, reduce distribution costs per customer, of course. Until that unfolds, however, it is important to customers that the distributors are not starved of necessary resources due to declining volumes.



12. SEC therefore believes that some form of revenue decoupling is essential, so that distributors have revenue stability. We believe, though, that the revenue decoupling goal should be achieved within rate-making principles that are also sustainable and fair.

### **Applicable Ratemaking Principles**

13. Throughout our involvement in this subject, our approach has remained the same. In SEC's submission, it is critical that any change by the Board in the structure of the rates it approves must start with, and be wholly founded on, an analysis of the rate-making principles that the Board determines are applicable to the assignment of responsibility for electricity distribution costs.
14. **"Just and Reasonable"**. It is common to start with Bonbright, but of course that is not really the starting point. The starting point with all rate issues is the Board's statutory mandate to deliver just and reasonable rates.
15. Most of the discussion of just and reasonable tends to focus on the "reasonable" part, i.e. rates sufficient to cover the utility's reasonable costs and provide an opportunity to earn a fair return. This is looking at rates as between utility and ratepayer. It is the "how much" question.
16. We have always understood the "just" component to be about splitting up responsibility between ratepayers, i.e. the "who pays" question. Inherent in the "just" component is that rates are assigned to customers based on some principle of fairness.
17. In our submission, it is incumbent on the Board, in any rate design analysis, to determine on what basis the Board believes rates should be tested to determine fairness. The current basis is cost causality, applied at a fairly rough level of granularity. If a different basis for determining fairness is preferred, or an increase or decrease in granularity, in our submission the Board should clearly state that basis, and that level of granularity, along with its reasons for going in that new direction.
18. **Cost Causality**. Conceptually, ratemaking in the traditional sense involves two steps. First, the Board determines how much the utility should collect from ratepayers, usually based on a bottom-up (COS) or a top-down (IRM) forecast or projection of reasonable costs. Second, the Board assigns responsibility for funding those costs as between ratepayers.
19. The fact that responsibility to pay costs is being assigned between end-users implies that the fair way to allocate that responsibility is based on the relative causation of those costs, i.e. the principle of cost causality.
20. It is not really different from a group of friends splitting a dinner bill. They can agree, as friends, that they will split it equally, and often do, assuming that it will all work out in the end. However, the fair way to split it is based on what each person ordered. The person who drank three glasses of wine with their steak should, in fairness, pay more than the person who had a salad and water. No-one would disagree with that, although some might bristle at the complexity of dividing it up with precision. As a result, the solution is often that



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those who spent more will throw more into the pot, producing a kind of rough justice. Rate-making works much the same way.

21. Cost causality is not the only principle that could be used to determine the fair split of distribution costs between ratepayers. The costs of society, for example, are at least in part divided between us using the principle of ability to pay (progressive income tax, for example). Another possible principle would be willingness to pay. That is, those who want a particular cost/service more should pay for it, even though others also benefit as a type of free rider. Some system expansions are funded in part this way. Another possible principle would be social or moral responsibility. Those who are less socially or morally responsible (perhaps those who conserve less) would pay a greater proportion of the costs. We have taxes on alcohol and tobacco, for example, that are largely based on this principle. These are only three examples of alternative principles of fairness. There are many.
22. SEC is not proposing that the Board adopt any of those alternative principles of fairness. Any of those principles would be a very fundamental change in the nature of economic regulation by the Board, adopting a social role that many believe is incompatible with the Board's statutory mandate.
23. SEC therefore submits that the Board should retain and affirm the use of cost causality as its primary test of whether rates are fair as between ratepayers. This will have direct implications on the available options for revenue decoupling.
24. **Classification vs. Rate Design.** The Board has traditionally implemented the cost causality principle in a two stage process.
25. First, the Board establishes rate classes, based primarily on customer homogeneity. This is not mainly homogeneity of end-use, but rather a grouping of customers based on the similarity of their demands on the system, i.e. cost causality. While the nature of the end-use (residential, for example), may be the reason that the customers drive costs in a similar way, the foundation for the grouping is that their costs are similar. The entire cost allocation system approved by the Board relies on this assumption.
26. Most Ontario electricity distributors have a relatively small number of rate classes. This is made possible by the second stage of the process. Recognizing that all small commercial customers, for example, do not cause the same costs on the system, the Board uses rate design to allocate intra-class cost responsibility. Our current fixed-variable splits, and how they are designed, attempt - however inaccurately - to achieve a fair allocation of cost responsibility within the class, based on cost causality. The Board in fact uses a component of the cost allocation model to test the reasonableness of the fixed charge component.
27. So, for example, in 2012 the average GS<50 customer was responsible for \$831.14 of annual distribution costs across Ontario (\$966.94 if Hydro One is included in the average). No-one, however, believes that both the corner store and the elementary school cause the same \$831.14 of costs to the system. It is likely that the corner store is closer to the residential cost level, i.e. \$307.90. The school, depending on its size, could easily be causing \$1,500.00 or more in costs.



28. Recognizing that it is not fair for the two to bear the same portion of the costs, the rate design fixes part of the cost, and allows the other part to vary with use. One can argue whether the method used to vary costs with use properly tracks costs. However, it is not reasonably arguable that charging both customers the same amount fairly allocates costs as between them.
29. In order for cost causality to be implemented in Ontario, both the classification and the rate design components are required.
30. That is not the only way to implement cost causality. If, for example, the Board were to prefer few classes, that could be done, but more of the allocation of cost responsibility would have to be built into the variable nature of rates. On the other side, and more a propos the Draft Report, if the Board reduces the use of rate design to implement cost causality, it must logically increase the number of rate classes, so that those in the same class are closer together in terms of the costs they cause.
31. In SEC's view, the current number of classes for residential and small general service is reasonable, and does not need to be changed. As a result, rate design should continue to be an important tool in ensuring intra-class fairness. As we note later, this effectively eliminates the use of Option #1.
32. **Simplicity/Understandability.** Another goal in rate design is to make the rates simple and easy to understand. This is not usually a question of cost causality (except at the extremes), but one of granularity. The question is, at what point in implementing cost causality should the Board say "OK, that's close enough. Adding further complexity is not adding sufficient incremental precision."?
33. There are two extremes here. At one extreme, everyone pays the same amount, and cost causality is essentially ignored. At the other extreme, everyone's precise costs are calculated, and customers have individually tailored rates. One extreme founders on lack of fairness; the other founders on impracticality. The obvious answer, and the one that the Board has used for some years, is a balance, somewhere in between the two extremes.
34. **Price Signals.** Some parties will argue that distribution rates must vary with use to send price signals to customers incenting them to conserve or shift their use. This is an important principle, and in general SEC strongly agrees with the necessity to maintain appropriate price signals. There are two reasons why, in the context of distribution rates, this may not be as important as it first appears.
35. First, the incremental impact of a distribution price signal may not be significant. The average residential customer in Ontario paid, in 2012, \$25.66 per month for distribution service (again excluding Hydro One; with Hydro One it would be \$34.29 per month). This is only 20-25% of their total bill, and the bulk of that bill is already differentiated based on time of use.



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36. There is no reason to believe that the small price signal that could be built into distribution rates (or is today because of the volumetric component of the rate) would have a material incremental impact on consumption. If the current 13.5 cents per on-peak kwhr for the commodity is not influencing their consumption, it is unlikely that the additional 3.6 cents for distribution will make an appreciable difference.
37. Second, the ability of the distribution price to influence consumption is limited by bill presentation and lack of customer understanding. As was seen in the Gandalf focus groups, customers have a limited understanding of distribution rates, and this is exacerbated by the presentation of the delivery line on the bill. Customers do understand time of use rates, because that is presented to them clearly.
38. This could be solved by changing the nature of distribution rates, and requiring that they be presented in a clearer way. Failing those changes (which could result in material costs to distributors), in our submission it is unlikely that any price signal from distribution rates will get through to the customers in the first place, let alone influence their behaviour in any incremental way.
39. **Revenue Stability.** The last – but not least important - of the key principles is revenue stability for distributors. The whole discussion of revenue decoupling arises out of the need to ensure that distributors have stable revenue over the long term, in order to manage and sustain their distribution infrastructure. SEC has consistently supported this principle.
40. However, there is a danger that the purpose of this rate design review becomes the sole driving principle for change. Parties, and the Board, can mistakenly ask the question “How do we best achieve distribution revenue stability?” That is, in our submission, the wrong question. The right question is “How do we maintain fairness and equity in rate-making while improving revenue stability for electricity distributors?” The answer to the second question is not, in our view, the same as the answer to the first question.

**The Board’s Three Proposed Options**

41. SEC has stated in past consultations that it does not believe that increasing the fixed charge is the best approach to achieving revenue decoupling. True-up approaches, such as those seen in gas distribution, are superior tools for this purpose.
42. On the other hand, the Draft Report makes clear that the initial question - whether rate design or true-up should be used to decouple revenues from volumes – has been answered. The Board has determined to go in the direction of increased fixed charges. SEC accepts that this initial question has been determined, and has approached the analysis of the options presented from the point of view of assessing how the fixed charge approach can best achieve the goal while maintaining appropriate rate-making principles.
43. **Option #1 – Single Monthly Charge.** As will be apparent from our discussion of the principles above, SEC does not believe that a single monthly charge across an entire rate class can be achieved without changing the principles on which rates are based in Ontario.



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The Board cannot continue to equate fairness with cost causality while at the same time charging customers with widely differing costs the same price for distribution.

44. The exception is, as noted earlier, that the Board could take this step and remain consistent with the cost causality principle if the number of rate classes were dramatically increased. This is something the Board heard in the focus groups, but we have also shown in our earlier example how it is nothing more than common sense.
45. Option #1 also raises an important practical reality in the residential rate class. As the Board's analysis demonstrates, smaller users get rate increases, and larger users get rate decreases, under this Option. This is likely a shift between customers with larger residences, and presumably greater ability to pay, and customers with smaller residences for whom the increase proposed may be more meaningful. It does not appear to us to be good rate policy to deliberately increase costs to smaller customers so that they can subsidize the larger customers.
46. Related to this is Hydro One's analysis of electric heating. The end result of Option #1 would be that the cost of electric heating would go down. Given the Conservation First policy of the Province of Ontario, it would appear to us that the Board should not be promoting a heating fuel choice that is less efficient than, for example, natural gas.
47. **Option #2 – Fixed Charge Based on Connection Size.** Most stakeholders – utilities and ratepayers – in general appear to be opposed to this approach. There are at least four good reasons for this:
  - a. There is no evidence before the Board, or in the literature, of a correlation between customer demand, or utility costs, and connection size. Those who propose this approach appear to assume that the connection is obvious. It is not obvious to SEC. Much of connection size is based on the history of Ontario housing stock, and is not connected with how people use that housing stock today. If the Board were to adopt Option #2, it would simply be guessing that there is a connection between distribution costs and connection size. It is not the Board's normal practice to implement policy with an entirely speculative foundation.
  - b. The utilities don't have data on connection by customer, so an unknown amount of (ratepayer) money would have to be spent, and customer disruption incurred, to gather that data.
  - c. Connection size is relatively inelastic, so the use of Option #2 is unlikely to influence demand in any way. To the extent that people do respond to the price signal this would send, it would be to downsize their connection. There may be possible safety and reliability implications where customers elect to use their now smaller connection more fully.
  - d. Customers will rightly feel that they lack any ability to control this part of their electricity costs, and will thus feel that it is unfair. They may also treat this as a



negative price signal, i.e. “It doesn’t matter how much you conserve, you are still going to pay this amount”.

48. We note that Option #2 is essentially dividing the Residential Class, for example, into sub-classes, each with a single fixed charge. Each of the three proposed new classes has in theory more similar costs than the former class, so the use of the single fixed charge in each of the new classes is less unfair. However, that is only true if connection size and cost are correlated, which is not known. Further, there is no evidence that it would be more fair, or even as fair, as the current rate design.
49. **Option #3 – Fixed Charge Based on Peak Use.** In Option #3, the proposal is to divide the Residential class into three classes based on consumption. 20% would be in Residential-Low, 70% would be in Residential-Medium, and 10% would be in Residential-High. Because the three new classes would be based on consumption in peak periods, they would assign cost responsibility based more closely on cost causality. Because the three classes each have a single fixed rate, they would still have intra-class issues that are not being addressed by rate design techniques, but those issues would be less than if they were one big class.
50. Option #3 appears to have the following material disadvantages:
- a. This option accomplishes revenue stability by re-assigning customers to one of the three new classes annually. Throughout the year the customers would then pay the same distribution charge every month, based on peak consumption in the previous year. Customers are specifically not rewarded for their current conservation efforts.
  - b. A related problem is that of changes in ownership or possession of properties, and the risk that a current owner will pay a higher cost because of the profligacy of their predecessor. Methods of correcting for this would add complexity to the system.
  - c. Customers at the margins in these new classes will have rate volatility that is not commensurate with their actual changes in peak consumption. Conversely, customers who are in the middle of a new class will never be impacted by their own changes in peak consumption.
  - d. This is relatively opaque to the customer, and is likely to generate a considerable amount of customer misunderstanding. As customers are re-assigned to new classes annually, call centre volumes and other customer complaints are likely to go up.
51. Most of these failings appear to be driven by two choices made in designing Option #3. First, the adjustment for use is not a continuous one, but set in tranches. In effect, the proposal is to use the creation of new rate classes in place of rate design techniques to achieve closer adherence to cost causality. Second, the adjustment is an annual one, creating practical and communications problems.





52. In the SEC proposal, below, we seek to achieve the same result as Option #3, but without these two types of issues.

**Variation on Option #3**

53. SEC believes that the existence of smart meters (and the technology resources inherent in a common AMR) can allow the Board to achieve revenue decoupling from the point of view of the distributors, while still allocating cost responsibility fairly (in fact, even more fairly) between customers. Our proposal is for a dynamic fixed charge.

54. **Dynamic Fixed Charge.** Under our proposal, each distributor will have an average monthly fixed charge for the residential rate class, for example, which covers all costs assigned to that class. That charge will likely be in the \$27 per month range (excluding Hydro One), but will vary from one distributor to another.

55. Distributors already have the data on the total on-peak usage for each customer, because they get it monthly from the AMR, and bill their customers on that basis. SEC proposes that the monthly fixed charge for each customer be made dynamic, in that it is multiplied by the ratio of the individual residential customer's on-peak usage for the previous month to the average residential customer's on-peak usage for that previous month.

56. For example, suppose that a distributor needs to average \$30 per Residential customer each month to cover all Board-approved costs. That is established as their average Residential monthly charge. Average on-peak use by residential customers of that distributor in June, say, is 400 kWhrs. Customer A has on-peak use in that same month of 300 kWhrs. Customer A's July fixed charge is therefore  $300/400$  times \$30 = \$20.00. Customer B, meanwhile, had 500 kWhrs of on-peak use, so pays \$37.50.

57. The effect is that the average monthly charge for the distributor remains at \$30, just through the mathematical imperative. The distributor therefore has 100% stable revenue, varying only by customer numbers. From the ratepayers' point of view, however, their share of the cost responsibility varies up or down based on their most recent on-peak use.

58. **Immediacy of Fixed Charge Adjustments.** This approach assumes that the rate paid is based on most recent consumption, because that is what customers will understand most easily, and consider most fair. This is dependent on the AMR being able to provide data in this manner, which we think it can.

59. It is also dependent on whether distributors' billing systems can accommodate this change. It would appear to us that any change except Option #1 will in any case require some billing system adjustments. Because this change relies on data that is already being fed into the billing system for commodity purposes, it is likely that this will be cheaper and easier to administer than either Option #2 or Option #3.

60. It could also be possible to delay the consumption adjustment, with a concomitant reduction in the connection between cost and consumption. This does not appear to us to be



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necessary, given that the consumption information being proposed is already on the very same bill.

61. **Price Signal.** We have commented earlier that the ability of distribution charges to send an incremental price signal is limited, both by the dollars involved, and by the complexity of the distribution charge itself.
62. The Dynamic Fixed Charge proposal seeks to provide at least some price signal, although it would have to be accompanied by appropriate messaging to be useful.
63. This proposal relies on consumption during peak hours as a proxy for demand and therefore cost responsibility. This is something that customers already understand due to time of use rates, and it has already been established that it is a good proxy from a technical point of view. That's why we have time of use rates.
64. Because it is done on a monthly basis, using a comparison to averages for the class (similar to Option #3), it corrects for consumption drivers such as business conditions and weather that are common to all customers. Customers will readily understand that they used more than their neighbours, and that's why they are being asked to pay more.
65. Messaging will still be important. In our view, the simplicity of this message ("you needed the system more during peak periods than your neighbours") lends itself to bill presentation that highlights the \$5 or \$10 increase in cost that is resulting from last month's heavy use. While the dollars are still low enough that they will have limited influence, it will at least be more obvious. Further, since the adjustment is a simple one, it may be possible to leave the distribution charges buried in the delivery line, and simply add a message (as is already the case with, for example, comparative use information) showing that usage was X% above or below average, resulting in a \$X premium or discount in the distribution monthly charge.
66. **Data and Technology Feasibility.** This proposal depends on the data being available, and the calculation being technically feasible within most billing systems. We think both things are likely to be true.

**Other Implications**

67. Any adjustment to rates that results in revenue erosion being stopped will reduce risk and increase revenues for distributors. That is, in fact, the whole point of doing it. There are at least two implications of this.
68. **Risk and Cost of Capital.** Cost of capital, and equity thickness, are driven by risk. A utility with a higher risk has a higher total cost of capital, and vice versa. If the revenue risk to the utility is reduced by revenue decoupling, then the cost of capital that meets the Fair Return Standard must go down to comply with that standard.
69. **IRM X Factors.** Less obvious is that fact that past Total Factor Productivity for distributors has been based on data that builds in the impact of revenue erosion. To the extent that there has been attrition in volumetric billing determinants in the past, and unit costs for the



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past have been based on those volumes, unit costs have been calculated as rising more quickly than would have been the case if volumes per customer had remained constant. The TFP therefore may be understated.

70. We have not analysed the recent TFP data to see if this impact is material. However, it is submitted that, before implementing revenue decoupling using a rate design approach, the Board should determine the extent of this impact, and adjust for it.

**Mandatory vs. Voluntary**

71. The Board has asked parties to comment on whether distributors should have a choice as to whether they adopt revenue decoupling, and if so which Option they wish to use.

72. There are two ways of considering this. First, what can the Board do legally? Second, within that first category, what is the optimum regulatory policy?

73. On the first point, SEC submits that the Board can establish one or more rate design or rate class approaches that, in the Board's opinion, will each result in just and reasonable rates. That analysis obviously must be done based on a principled approach, and would probably result in one or more of the proposed options being rejected. Option #1, for example, clearly does not result in just and reasonable rates, and based on the current evidence neither does Option #2. The Board would also have to determine whether the current rate structure still results in just and reasonable rates.

74. In our submission, this first step is a legal requirement. The Board cannot include an option for distributors that does not, on the evidence, result in just and reasonable rates.

75. Once the options that produce the necessary result have been identified, the Board then has a discretion as to whether to offer one, several, or all compliant options to the distributors. This is about regulatory policy. Do the benefits of consistency and simplicity outweigh the benefits of flexibility and distributor choice? Depending on the available options, SEC believes that flexibility should be preferred in most cases.

76. However, there is one caveat to this. The choice of whether to choose a decoupled rate method, or not, should in our view only be allowed if the consequences to the ratepayers are also taken into account. This means that both cost of capital and IRM impacts of lower risk and less attrition should be part of the equation. Distributors should not be allowed to choose a reduction of their risk (shifting that risk to the ratepayers), without bearing the normal and fair consequences of that shift in risk.

**Conclusion**

77. SEC believes that the Board should clearly articulate the principles of rate classification and rate design that it will employ, including in particular the principle on which the Board will test whether rates as between different customers are fair. SEC strongly supports continued reliance on cost causality for this purpose.



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78. Once the Board establishes the relevant principles, in our view Option #1 and Option #2 are not viable on their face. Option #3 also has significant disadvantages. SEC has proposed modifications to Option #3 that we believe make it a good method of achieving revenue decoupling while maintaining – perhaps even enhancing – reliance on the principle of cost causality.
79. Any reduction in risk for distributors should result in an adjustment to cost of capital. In addition, any removal of the attrition trend may require a recalculation of the measured TFP for previous periods when that trend still existed.
80. Distributors should only be given options by the Board if every one of the available options results in just and reasonable rates. Further, the option to decouple should only be available if the cost of capital and TFP consequences of decoupling also flow from that choice.
81. SEC thanks the Board for being given the opportunity to comment on these important issues, and hopes that this input will be of assistance to the Board.

All of which is respectfully submitted.

Yours very truly,  
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cc: Wayne McNally, SEC (email)  
Interested Parties