

**ONTARIO ENERGY BOARD**

**EB-2015-0043**

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

**AND IN THE MATTER OF** a consultation regarding rate design for commercial and industrial electricity customers;

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**Out of Sync: Missed Opportunities to  
Reduce Electricity Bills with Better Rate Design**

**Comments of Environment Defence on the Staff Report on Rate Design for  
Commercial and Industrial Electricity Customers**

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## Summary

In 2016, Board Staff released an excellent Discussion Paper describing how the current commercial and industrial rate design is “out of sync” because it “fails to align the interests of the customer and distributor.”<sup>1</sup> The main problem is that rates are not linked to the primary cost driver for the distribution system: peak demand on the system (i.e. coincident demand).<sup>2</sup> Staff proposed a specific charge for electricity demand at the coincident peak to encourage customers to optimize their usage of the system.<sup>3</sup> They predicted this would “lower long term investments by distributors” and thus lower distributor costs and electricity bills.<sup>4</sup>

Unfortunately, Board Staff has reversed course since that time. The 2019 Staff Report to the Board abandons the coincident peak demand charges that would align interests and lower costs.<sup>5</sup> This is a major missed opportunity.

The Government of Ontario has committed to cut electricity bills by 12%. Every available opportunity to reduce bills must be pursued. Rate design is an excellent avenue because it can achieve savings without up-front investments via taxes or rates. Abandoning the proposals from 2016 is contrary to the Government of Ontario’s focus on cutting electricity bills, the directive in the OEB *Strategic Blueprint* to reduce costs, and the OEB’s stated objectives for this process to “increase efficiency” and “optimize investment for long-term cost containment.”<sup>6</sup>

The 2019 Report to the Board also proposes a Capacity Reserve Charge that would levy extra charges on customers with distributed generation.<sup>7</sup> This proposal is unfairly skewed against distributed generation and contrary to cost causality because it does not capture the many ways that distributed generation can save distribution system costs and instead focuses solely on the cost of reserve capacity that must be maintained by the distribution system for distributed generation. A coincident peak demand charge would do a better job achieving the purposes of the Capacity Reserve Charge, with much less complication, and without unfairly disadvantaging distributed generation.

The best rate design would allocate as many costs to a coincident peak demand charge, and as few as possible to fixed charges, while remaining consistent with the principle of cost causality. This would incentivize positive customer behaviour such as shifting load off the peak, installing

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<sup>1</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

<sup>2</sup> *Ibid.*

<sup>3</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 2 & 15.

<sup>4</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 2.

<sup>5</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, p. 18 & 36.

<sup>6</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, p. 4 (The blueprint “...stresses both incenting utilities to focus on long-term value for money and least-cost solutions, and rates that support the efficient use of infrastructure and enable greater customer choice and control. The OEB stated that it would achieve this goal by continuing the redesign of the electricity distributor rates to give all customers a better signal regarding the cost of delivery.”); EB-2015-0043, OEB, May 28, 2015 Announcement Letter.

<sup>7</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, pp. 37-43.

distributed energy, and implementing energy efficiency, which in turn would make the system more efficient, lower costs, and contribute to lower electricity bills.

Environmental Defence therefore asks the OEB to change course and either order a formal hearing or direct the development of proposals that will increase efficiency, enhance fairness, and lower electricity bills by:

1. Charging customers for their contribution to the distribution coincident peak demand;
2. Allocating as high a proportion of distribution costs to coincident peak demand charges as is consistent with a reasonable interpretation of cost causality; and
3. Allocating as low a proportion of distribution costs to fixed charges as is consistent with a reasonable interpretation of cost causality.

## **Coincident Peak Charges**

### **Coincident Peak Charges would Lower Bills**

Coincident peak demand charges would lower electricity bills by rewarding customers who shift their electricity usage in a way that reduces costs for electricity distributors. “The biggest cost drivers for electricity distribution systems are customer numbers and **peak** demand.”<sup>8</sup> Current rate designs do not reflect the importance of coincident peak demand on the distribution system. Instead, the variable charges are based on usage (kWh) or non-coincident peak demand (kW).<sup>9</sup> There is no incentive to optimize usage in a way that would reduce the system-wide coincident peak demand and thus reduce distribution costs. As stated by Staff in 2016, “a price that does not differentiate between demand that drives cost and demand that does not, fails to align the interests of the customer and the distributor.”<sup>10</sup>

In 2016, Board Staff noted as follows:

While the size of system investment required is driven by the peak demand, customers also consume power at other “off-peak” times. Considered from the economic standpoint, off-peak demand is a co-product of the primary product and can be ‘sold’ at reduced prices as an additional source of revenue while peak capacity draws the primary revenue. Lower off-peak prices will encourage customers to make better use of existing distribution system assets and reduce the need for new capacity expansion.<sup>11</sup>

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<sup>8</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 5; Pacific Economics Group Research, LLC, *Empirical Research in Support of Incentive Rate Setting in Ontario*, May 2013, p. 54.

<sup>9</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

<sup>10</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

<sup>11</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

The obvious solution is to charge customers for their contribution to the coincident peak demand. In 2016, Board Staff proposed to do just that. It said “the OEB view is that distribution rates should address distribution costs and therefore distribution peaks.”<sup>12</sup> However, the 2019 Report to the Board abandoned that approach.<sup>13</sup> Nothing has changed to justify that reversal. Coincident peak demand charges are still the best way to lower costs and bills.

As described in the 2019 Report to the Board, the OEB’s *Strategic Blueprint*:

...stresses both incenting utilities to focus on long-term value for money and least-cost solutions, and rates that support the efficient use of infrastructure and enable greater customer choice and control. **The OEB stated that it would achieve this goal by continuing the redesign of the electricity distributor rates to give all customers a better signal regarding the cost of delivery.**<sup>14</sup>

The OEB identified efficiency as one of the three objectives of this process:

- To increase efficiency
  - To maximize use of the current system
  - To optimize investment for long-term cost containment<sup>15</sup>

Abandoning coincident peak demand charges, and the bill savings associated with them, is inconsistent with Government policy, Board directives, and the interests of consumers. It means Ontarians will pay more for electricity distribution than is necessary and efficient.

### **Coincident Peak Charges would Promote Fairness**

The current rate design overcharges customers for non-coincident peak demand and undercharges for coincident peak demand.<sup>16</sup> Customers with relatively lower coincident peak demand subsidize those with relatively higher coincident peak demand (other things being equal). Customers who reduce system costs by reducing their coincident peak demand do not receive any reward for the benefits they provide. All of these aspects of the current rate design are unfair.

This is also contrary to the principle of cost causality. Again, distribution investments are largely a function of peak demand on the distribution system because infrastructure must be built to be capable of handling that peak demand. Customers who avoid the peak periods should be rewarded for decreasing system needs and costs. That is not happening.

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<sup>12</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 25.

<sup>13</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, p. 18 & 36.

<sup>14</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, p. 4

<sup>15</sup> EB-2015-0043, OEB, May 28, 2015 Announcement Letter.

<sup>16</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6-7.

Staff described the issue as follows in 2016:

Current OEB staff thinking is that the underlying rate design should ... reward the active customer for reducing one of the primary cost drivers i.e. peak capacity. Reducing peak capacity will lower the distributor's investment needs to meet peak capacity and save money over time. Building this driver into the rates will align the interests of the customer and the distributor. The expectation is that **a rate design that addresses underlying cost drivers will lead to each customer paying their fair share of the system.**<sup>17</sup>

### **Coincident Peak Charges are a Forward-Looking Best Practice**

Coincident peak charges are a best practice in rate design that is increasingly being adopted as appropriate metering equipment and new demand-shifting technologies become available.<sup>18</sup> The rate design decided through this process will send price signals for many years to come. It should be forward looking and make opportunities for new technologies to enter the market.

Other jurisdictions are successfully implementing coincident peak demand charges. For example, coincident peak demand charges have been adopted in California and New York, two leading jurisdictions.<sup>19</sup> If Ontario does not implement coincident demand charges it will be increasingly out of step with the leading jurisdictions and best practices.

### **Concerns re Coincident Peak Charges are Misplaced**

There is no basis for the decision to reverse course and abandon coincident peak charges. It is hard to understand why this decision has been made in light of the imperative to lower electricity bills. Environmental Defence has responded below to the rationales mentioned in the 2019 Report to the Board and the Stakeholder Conference.

#### *Support for Coincident Peak Charges*

Staff has pointed to responses to its 2016 Discussion Paper as justification to abandon coincident peak charges. However, the majority of stakeholders *supported* coincident peak charges of one kind or another. Many strongly supported these charges. Some examples are included below:

- The **Association of Major Power Consumers in Ontario** (AMPCO) stated that it “agrees in principle with current OEB thinking that providing incentives to customers to reduce peak capacity optimizes use of the current system and optimizes investment needs

<sup>17</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 12.

<sup>18</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, pp. 2 & 6.

<sup>19</sup> Pacific Gas and Electric Company, *Revisions to Electric Rate Schedules E-19 and E-20 in Compliance with Decision 14-12-080*, February 2, 2015; Consolidated Edison Company of New York, Inc., *Schedule For Electricity Service* ([https://www.coned.com/\\_external/cerates/documents/elecPSC10/electric-tariff.pdf](https://www.coned.com/_external/cerates/documents/elecPSC10/electric-tariff.pdf)); Arizona Public Service Electric Company, *Rate Schedule E-32 L*; Public Service Electric and Gas Company, *Tariff for Electric Service*.

for long term cost containment.”<sup>20</sup> AMPCO specifically supported options including coincident peak charges, stating as follows:

In AMPCO’s view, this rate design option best responds to cost causality and the uniqueness of customers and how and when they use energy and the distribution system, while still sending the right price signals to appropriately incent customers to use the grid more efficiently and shift demand to off-peak periods. Some AMPCO members (Intermediate/Large Use customers) use more energy during the peak and others use more energy off-peak and their contribution to the peak varies. Some customers use energy at a steady rate, for example, 24/7 and 365 days a year. This rate design recognizes the differences between customers and in AMPCO’s view is fairer and leads to better economic outcomes for customers. Board Staff indicates that this option is expected to be fairer and provide more revenue stability than peak and off-peak alone. AMPCO submits this option is the most cost-effective.

This Option also provides more accurate price signals in that it reflects connection demand and capacity demand, two of the main distribution system cost drivers and it differentiates between the two. Active customers are rewarded for reducing peak capacity.<sup>21</sup>

- The **Association of Power Producers of Ontario (APPrO)** stated that “APPrO agreed that distributor and generation owner objectives can be aligned by recognizing in rate design that a considerable portion of distribution investment is driven by customer and distribution peak loads.”<sup>22</sup> APPrO was “not supportive” of fully fixed charges and was “strongly supportive” of the three part demand option that included a narrow coincident peak charge.<sup>23</sup>
- The **Building Owners and Managers Association (BOMA)** also supported coincident peak charges.<sup>24</sup>
- The **Canadian Federation of Independent Business (CFIB)** supported charges “which gives users who peak in peak hours a very strong incentive to shave their peak, but also gives an incentive to users who peak outside peak hours to manage their peak.”<sup>25</sup>

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<sup>20</sup> AMPCO Comments, May 27, 2016, p. 2.

<sup>21</sup> AMPCO Comments, May 27, 2016, p. 4.

<sup>22</sup> APPrO Comments, May 27, 2016, p. 5.

<sup>23</sup> APPrO Comments, May 27, 2016, p. 11.

<sup>24</sup> BOMA Comments, May 27, 2016, p. 7.

<sup>25</sup> CFIB Comments, May 27, 2016, p. 8.

- The **Canadian Solar Industries Association** (CanSIA) supported the 2016 proposals including coincident peak charges and “rate design options to help ensure that customers contributions to peak demand are charged appropriately.”<sup>26</sup>
- **Energy Storage Ontario** (ESO) also supported coincident peak charges because this would “offer prosumers a direct incentive to load shift for the benefit of the consumer and the system” and “decrease or defer the cost of distribution and transmission upgrades.”<sup>27</sup>
- The **Independent Electricity System Operator** (IESO) supported the principles behind coincident peak charges, stating as follows: “The IESO agrees that any rate design should embody cost-causality principles and should provide clear links between the costs to build and maintain a reliable and cost-effective electricity system, how customers use the system and how they pay for it. Meeting this objective will help ensure future system investments focus on long-term cost containment while customers across all classes understand and value utility services, and are charged for use of existing and new infrastructure in a fair and equitable manner.”<sup>28</sup>
- The **London Property Management Association** (LPMA) also supported charges levied at the coincident peak.<sup>29</sup>
- The **School Energy Coalition** (SEC) expressed support for the objectives of cost causality and efficiency, stating as follows: “Any change to C/I rates will produce winners and losers. Schools are not necessarily fixated on being in the winners group in that process. Winners and losers should be based on sound ratemaking principles, including in particular cost causality. In the long run, that is better for all customers.”<sup>30</sup>

Most importantly, the majority of *ratepayer* groups supported the proposal to implement coincident demand charges. Changes to rate design are always hard to achieve because they always create uncertainty and winners and losers. In light of these inherent challenges, the above comments are indeed very positive and show that many groups supported the principles of efficiency and cost causality underlying the 2016 proposals.

Furthermore, Board Staff engaged in consultations prior to the March 31, 2016 Discussion Paper. The first comment from this early engagement in the 2016 Discussion Paper was a strong expression of support for coincident peak charges:

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<sup>26</sup> CanSIA Comments, May 27, 2016, p. 4.

<sup>27</sup> ESO Comments, May 27, 2016, p. 7.

<sup>28</sup> IESO Comments, May 27, 2016, p. 2.

<sup>29</sup> LPMA Comments, May 27, 2016, p. 7.

<sup>30</sup> SEC Comments, May 27, 2016, p. 9.



Valuing peak capacity is a fair way to charge for a portion of distribution service. It represents a cost to the system. Pricing that reflects reality avoids both inefficient bypass and intra-class subsidies.<sup>31</sup>

Although a process that creates winners and losers will always face some opposition, the move to charge customers for coincident peak demand has received more than enough support.

### *Impact on Past Investment Decisions*

The Staff Report justifies the reversal on coincident demand charges as follows:

These customers also pointed out that they had often made previous business decisions for investments and operations based on managing their bill, including to participate in the Industrial Conservation Initiative peak demand reduction program. Changes to the rate design could undermine those decisions.

However, no analysis has been done to estimate the actual magnitude of this issue.

Furthermore, even if this turns out to be a significant issue, it can be mitigated by phasing in a new rate design over time.

Further still, plans for coincident demand charges have been public since at least 2016. This information has been available to customers making major investment decisions for over three years. Some customers may have already taken this into account to a certain extent, in which case abandoning these proposals would unfairly penalize them.

But more fundamentally, this concern is completely misplaced. If consumers are making investment decisions based on misaligned price signals, the solution is to phase in better price signals that properly align the interests of individual ratepayers with ratepayers as a whole. The 2019 Report to the Board proposal – to continue the misaligned price signals because consumers have made investment decisions based on those misaligned signals – is completely backwards. If that was a reason to avoid reform, there could never be any reform of rate design away from misaligned price signals.

When it initiated this process, the Board asked: “What price signals will align the interests of customers and distributors to maximize use of the system and contain long-term costs?”<sup>32</sup> Implicit in this question is the idea that signals are currently not aligned and need to be aligned. That is exactly what coincident peak charges would do.

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<sup>31</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 10.

<sup>32</sup> EB-2015-0043, OEB, May 28, 2015 Announcement Letter.

### *Simplicity and Cost Recovery for Distributors*

Although ratepayer groups supported coincident peak charges, some distributor associations did not. However, it is ratepayers who stand to benefit or lose the most from a more or less cost-effective system. The Board is mandated to protect consumers, not distributors. Although change will be a challenge for distributors, and fixed rates are always easier to administer, that is no reason to forgo efficiencies that would lower bills.

Furthermore, the Board has made it clear that distributors will be made whole: “The OEB will ensure that the change from one rate design to a new one will be revenue neutral. This project will not change the revenue requirement that is approved as a result of a proceeding for any distributor.”<sup>33</sup> Cost recovery can be assured and revenue erosion avoided with well-designed coincident peak charges.

### *Complexities can be Overcome*

Staff also point to complexities as justification to abandon coincident peak charges. Although there are many design decisions to be arrived at, and stakeholders hold many views on these decisions, complexities can and should be resolved. Indeed, coincident peak charges are successfully implemented in many jurisdictions in North America.<sup>34</sup> If they are successful elsewhere, they can be successful in Ontario.

Coincident peak demand charges can be set by each LDC in accordance with Board guidance and criteria. For example, this can be done through a review of the System Plans that the LDC’s are already required to produce. Coincident peak charges can be linked to System Plan conclusions to give customers a transparent forward cost view into potential new system costs that could be avoided by changes in their consumption patterns. The System Plans would also dictate the specific time and potentially the duration of the coincident peak demand charges. These and other design issues can and should be addressed.

### *Customers can Improve Efficiency*

Staff also expressed concerns about whether consumers can in fact shift their usage to non-peak times.<sup>35</sup> However, Staff did not prepare or commission any analysis to determine whether this concern justifies abandoning coincident peak demand charges. Although the IESO has prepared research relating to time-of-use rates, this is largely inapplicable because it focuses primarily on

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<sup>33</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 3.

<sup>34</sup> Pacific Gas and Electric Company, *Revisions to Electric Rate Schedules E-19 and E-20 in Compliance with Decision 14-12-080*, February 2, 2015; Consolidated Edison Company of New York, Inc., *Schedule For Electricity Service* ([https://www.coned.com/\\_external/cerates/documents/elecPSC10/electric-tariff.pdf](https://www.coned.com/_external/cerates/documents/elecPSC10/electric-tariff.pdf)); Arizona Public Service Electric Company, *Rate Schedule E-32 L*; Public Service Electric and Gas Company, *Tariff for Electric Service*.

<sup>35</sup> March 7, 2019 Stakeholder Meeting.

the residential sector. Also, the IESO analysis is backward looking and therefore does not account for emerging technologies and business models that take time to develop.

Furthermore, customers increasingly have new options to shift usage through smart equipment and storage. The rate designs created today will be in place for many years as these technologies improve and grow. Those customers who have trouble shifting demand today will have more options in the future. Price signals can take some time to work. Although this will not happen overnight, efficient rate designs give vendors an opportunity to pitch and sell new products to commercial and industrial consumers. This, in turn, would support the OEB's goals of supporting "customers' ability to leverage new technology" and to "enable technology changes."<sup>36</sup>

For example, behind-the-meter energy storage applications can offer customers the ability to respond to price signals without changing their consumption patterns. The energy storage application can charge during off-peak hours and discharge during on-peak hours to reduce strain on the distribution system. The cycling of a behind-the-meter energy storage application can operate independently of the customer's consumption pattern. In other words, the response to distribution price signals and a customer's consumption needs can be mutually exclusive.

Furthermore, there is significant energy efficiency potential in the commercial and industrial sectors, much of which would reduce coincident peak demand and system costs. This should be incentivized.

#### *Non-Coincident Peak Demand Charges are not an Adequate Proxy*

Staff noted that non-coincident peak demand charges can serve as a proxy for coincident peak charges.<sup>37</sup> However, it is self-evident that non-coincident peak demand charges do not give customers the incentive to shift their demand off the *system* coincident peak.

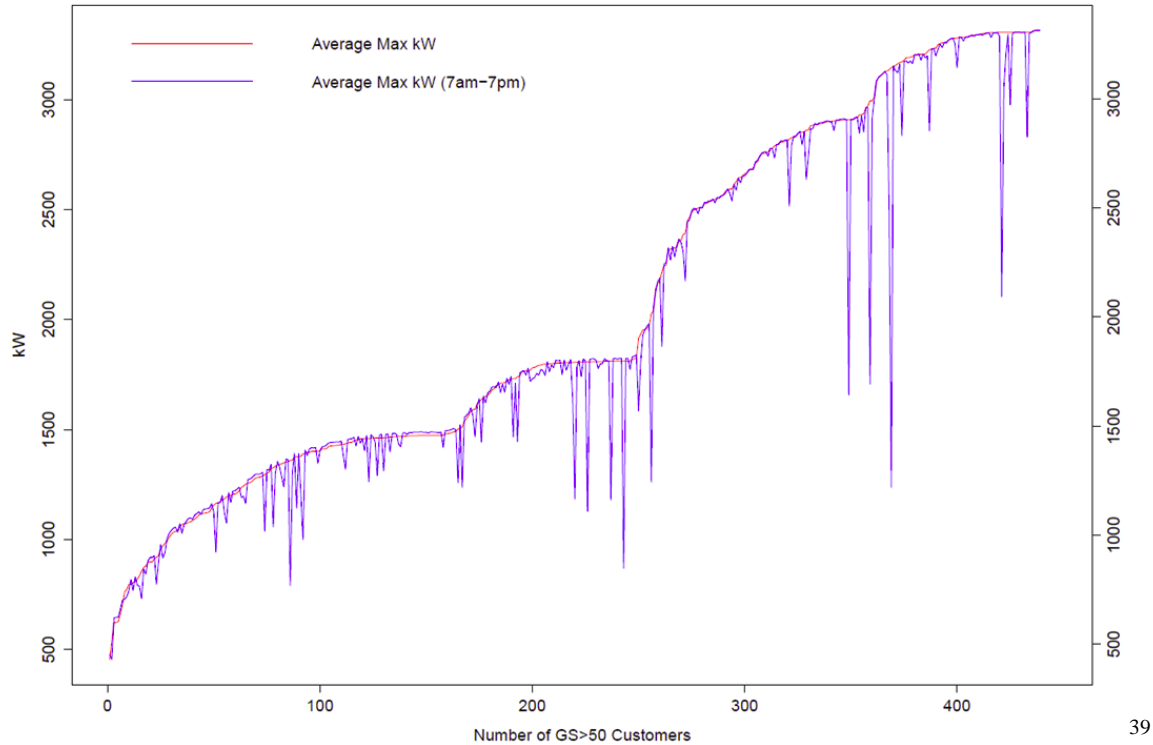
The below figure from the 2016 Staff Discussion Paper illustrates the mismatch. Whenever the blue line is below the red line, consumers are "being charged peak rates for off-peak use."<sup>38</sup>

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<sup>36</sup> EB-2015-0043, OEB, May 28, 2015 Announcement Letter.

<sup>37</sup> March 7, 2019 Stakeholder Meeting.

<sup>38</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.



The preceding paragraphs refute any rationales for abandoning coincident peak charges. But the most important point is that these charges are fairer and will result in lower bills, which is exactly what the Ontario Government and consumers want and need.

## The Capacity Reserve Charge is Unnecessary and Inefficient

Although this was not a topic addressed in the previous Discussion Paper, Staff are now proposing Capacity Reserve Charges that would levy additional charges on customers with distributed generation.<sup>40</sup> These charges are unnecessary and overly complicated. Coincident peak charges would more effectively achieve the purposes of the Capacity Reserve Charge without unfairly and inefficiently disadvantaging distributed generation. Board Staff explained this in 2016:

The OEB view is that distribution rates should address distribution costs and therefore distribution peaks. ...

This rate is closely linked to cost drivers. It ensures that a customer pays for fixed customer costs, customer connection and contribution to peak capacity. **The intent is to eliminate the need for specialized charging for distributed generation or net metering since the underlying distribution rate is recovery from customers according to their**

<sup>39</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 7.

<sup>40</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, pp. 37-43.

**use.** The peak demand rate would reward customers for generation on-peak but also charge them for use when their generator was down for maintenance or repair.<sup>41</sup>

Capacity Reserve Charges are a cumbersome, complex, and inefficient alternative to coincident peak charges. Capacity Reserve Charges are based on complex assumptions that mechanisms that can only hope to approximate cost causality, and only in the best case scenario where they are extremely well designed. The far better solution is to simply charge customers based on cost causality in the first place through coincident peak charges.

Furthermore, the proposed Capacity Reserve Charges unfairly penalize proactive customers that have installed distributed generation. The benefits to distributors from distributed generation include “voltage regulation, frequency response, and load control.”<sup>42</sup> Unfortunately, the proposed Capacity Reserve Charges are not meant to capture those benefits, and instead, focus on capturing the cost to distributors to retain reserve capacity for the times when the distributed generation is offline.<sup>43</sup> In a sense, it captures the system costs of distributed generation without capturing the system benefits, which is uneconomic and unfair.

This is also particularly unfair to customers with existing distributed generation. Since 2016, Staff has been proposing coincident demand charges that would “eliminate the need for specialized charging for distributed generation.”<sup>44</sup> The Capacity Reserve Charges represent a reversal. Although these charges would be phased in for customers with existing facilities, this would only somewhat reduce the unfairness, not eliminate it.

## **Cost Allocation Issues**

### **Maximize Allocation of Costs to Coincident Peak Charges**

The most efficient rate design would allocate as many costs to a coincident peak demand charge, and as few as possible to fixed charges, while remaining consistent with a reasonable interpretation of the principle of cost causality. This would maximize the incentive for customers to optimize their usage in a way that would lower distribution system costs and electricity bills.

If coincident peak demand charges are reconsidered in the future, Environmental Defence requests to be involved in any consultations regarding the allocation of costs between the various components.

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<sup>41</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 25.

<sup>42</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 34.

<sup>43</sup> EB-2015-0043, Staff Report to the Board, February 21, 2019, pp. 37-43.

<sup>44</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 25.

## Minimize Allocation of Costs to Fixed Charges

Environmental Defence asks the OEB to adopt a rate design that allocates as low a proportion of distribution costs to fixed charges as is consistent with a reasonable interpretation of cost causality. Fixed charges fail to incentivize positive customer actions that would benefit the system and lower distribution costs, such as shifting load off the system peak, installing distributed energy, and implementing energy efficiency. Coincident demand charges provide the best incentive for customers to make optimal decisions for the system, but even non-coincident demand charges and consumption charges are superior to fixed charges.

Very simply, higher fixed charges will cause inefficiencies that will increase distribution costs and drive electricity bills up over time. Conversely, lowering fixed charges will increase efficiency, decrease or delay distribution system costs, and decrease electricity bills over time.

### Limit Monthly Service Fees

Over the past decade, Monthly Service Charges have been allowed to increase far beyond the “reasonable upper end” set by the OEB.<sup>45</sup> They should be reined in and rationalized according to a consistent methodology that promotes efficiency.

The cost allocation methodology for Monthly Service Charges was established in EB-2005-0317 and EB-2007-0067 by setting a floor and ceiling for those charges.<sup>46</sup> Specifically, the OEB directed that:

- “The reasonable upper end unit cost per customer per month will be determined by the customer-related costs allocated using the generic stratified minimum system results and adjusted for PLCC.”<sup>47</sup>
- “[A]voided costs, as defined in the Methodology, is an appropriate basis for establishing the minimum or floor amount for the MSC at this time.”<sup>48</sup>

Monthly Service Charges for commercial and industrial customers are currently far out of the range directed by the Board. For example, Toronto Hydro’s non-residential Monthly Service Charges are **over 23 times** the ceiling and **over 65 times** the floor on average.<sup>49</sup> Alectra’s non-

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<sup>45</sup> EB-2005-0317, Cost Allocation Review, Board Directions on Cost Allocation Methodology for Electricity Distributors, September 29, 2006, p. 105.

<sup>46</sup> EB-2005-0317 (Cost Allocation Review); EB-2007-0667 (Application of Cost Allocation for Electricity Distributors); Note that no changes were made with respect to the Monthly Service Charge in EB-2010-0219 (Review of Electricity Distribution Cost Allocation Policy).

<sup>47</sup> EB-2005-0317, Cost Allocation Review, Board Directions on Cost Allocation Methodology for Electricity Distributors, September 29, 2006, p. 105.

<sup>48</sup> EB-2007-0667, Application of Cost Allocation for Electricity Distributors, Report of the Board, November 28, 2007, p. 12

<sup>49</sup> EB-2018-0165, Ex. 8, Tab 1, Sched. 1, p. 5.

residential Monthly Service Charges are **8 times** the ceiling and **31 times** the floor on average.<sup>50</sup> Although a variance may sometimes be justified, these figures strongly suggest that there is a problem.

The distributors are required to compare their fixed charges with the floor and ceiling in their rate applications. The relevant excerpt from Toronto Hydro’s application is excerpted below.

### Toronto Hydro 2019 Rates Application re Monthly Fixed Charge Comparison

Table 2: Monthly Fixed Charge (\$)³

	Residential	CSMUR	GS<50 kW	GS 50-999 kW	GS 1000-4999 kW	Large Use	Street Lighting	USL
CA Model Floor	5.11	2.68	12.91	28.99	17.18	-153.65	0.15	7.37
CA Model Ceiling	18.85	12.31	32.14	62.08	136.78	-27.77	5.06	13.40
Expected (2019)	37.98	30.98	36.28	52.17	996.61	4,399.14	1.63	7.23
Proposed (2020)	42.14	33.40	37.07	52.17	940.29	4,128.03	1.66	7.38

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Other ratepayers have expressed concerns about the variance between actual charges and the ceiling. For example, the Association of Major Power Consumers of Ontario noted in its 2016 comments that “for Large customers, the fixed rate was in most cases set significantly higher than the Cost Allocation Model Minimum System with PLCC adjustment, based on limited analysis.”<sup>52</sup> AMPCO supported limiting the Monthly Service Charges to the ceiling as this “appropriately reflects direct customer costs and better aligns with the principle that the rate design should match the cost drivers.”<sup>53</sup>

This issue was raised in the March 31, 2016 Staff Discussion Paper in this process.<sup>54</sup> Staff noted the wide variation between distributors’ fixed charges and asked for comments on “what measure should be used to set the fixed charge for each class (the Monthly Service Charge).”<sup>55</sup> However, the topic is completely absent in the 2019 Report to the Board. It appears that the important reforms contemplated in 2016 have been dropped without any explanation.

<sup>50</sup> EB-2018-0016, Attachment 8, Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet.

<sup>51</sup> EB-2018-0016, Attachment 8, Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet.

<sup>52</sup> APPrO Comments, May 27, 2016, p. 6.

<sup>53</sup> *Ibid.*

<sup>54</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 8..

<sup>55</sup> *Ibid.*

*Institute the Avoided Cost Allocation Methodology*

A cost allocation methodology should minimize fixed charges while remaining consistent with a reasonable interpretation of cost causality. There are a number of legitimate ways to analyze cost causation and allocation. It is essential to remain within those legitimate and reasonable interpretations. However, within those reasonable interpretations, the OEB should select the option which maximizes positive incentives, drives efficiencies, lowers distribution costs, and ultimately lowers electricity bills. That would be the methodology which produces the lowest proportion of fixed charges.

Mandating that Monthly Service Charges be capped at the current ceiling (minimum system with PLCC adjustment) would be significant progress. However, Environmental Defence submits that the OEB should go further, knowing that this could be the rate design in place for another decade. In particular, Environmental Defence believes the Monthly Service Charges should be set at the level of avoided costs.

Avoided costs is a reasonable methodology that is consistent with cost causality. Avoided costs are defined as “meter-related, billing, and collection costs.”<sup>56</sup> These “would be ‘avoided’ if the customer had simply never become a customer in the first place.”<sup>57</sup> The OEB implicitly held that using avoided costs is consistent with cost causality in deciding that “avoided costs, as defined in the Methodology, is an appropriate basis for establishing the minimum or floor amount for the MSC at this time.”<sup>58</sup> The OEB would not have approved this measure if it were inconsistent with a reasonable interpretation of cost causality.

In the relevant cost allocation review, Board Staff also noted that avoided cost would provide the most consistent and verifiable results.<sup>59</sup> It noted that avoided costs “are easiest to determine, are subject to minimal judgment and thus more accurate.”<sup>60</sup> The OEB agreed with and accepted this rationale, noting that “these costs are not subject to other cost allocation judgments (such as the minimum plant) and therefore there can be a higher level of confidence in the associated outcomes.”<sup>61</sup>

The avoided cost methodology also promotes efficiency because it limits the fixed costs and therefore promotes positive customer behaviour such as shifting load off the peak, installing

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<sup>56</sup> EB-2007-0667, Application of Cost Allocation for Electricity Distributors, Report of the Board, November 28, 2007, p. 12.

<sup>57</sup> EB-2007-0667, Board Staff Discussion Paper: On the implications arising from a review of the electricity distributors’ cost allocation filings, June 28, 2007, p. 26.

<sup>58</sup> EB-2007-0667, Application of Cost Allocation for Electricity Distributors, Report of the Board, November 28, 2007, p. 12.

<sup>59</sup> EB-2007-0667, Board Staff Discussion Paper: On the implications arising from a review of the electricity distributors’ cost allocation filings, June 28, 2007, pp. 26-27.

<sup>60</sup> *Ibid.*

<sup>61</sup> EB-2007-0667, Application of Cost Allocation for Electricity Distributors, Report of the Board, November 28, 2007, p. 12



distributed energy, and implementing energy efficiency. This behavior will make the system more efficient, lower costs, and contribute to lower electricity bills.

*Reject the Fully Fixed Option for GS<10*

The fully fixed option should be rejected for GS<10 because it:

- Is contrary to cost causality;
- Causes unfair cross-subsidization whereby customers with lower demand subsidize those with higher demand;
- Fails to incentivize positive customer behaviour such as shifting load off the peak, installing distributed energy, and implementing energy efficiency;
- Fails to promote efficiency that will drive down costs and bills; and
- Fails to promote new technologies.

Although some customers may not have the means or sophistication to benefit the system through efficient behavior, at least initially, that is not true for every customer. Those who do benefit the system through their investment and consumption decisions should be rewarded. An appropriate rate design would promote new technologies and vendors that will give customers the means to benefit themselves and the system as a whole. Although customers may not see how they could take positive steps now, that may change over time with the right price signals. Furthermore, there are many energy efficiency opportunities in the commercial and industrial sector that would give a large number of customers a way to reduce their contribution to system requirements. Why not incentivize this through good rate design that minimizes fixed charges?

*Ratepayer Opposition to Fixed Rates*

The large majority of intervenors in this proceeding expressed significant concerns with fully fixed charges and/or with over allocation to fixed charges. Some excerpts are included below:

- The **Association of Major Power Consumers in Ontario** (AMPCO) “did not support a 100% fixed charge for Intermediate and Large customers as it does not provide any incentives for customers to use the system more cost-effectively and efficiently, thereby driving up longer term investment costs for distributors.” AMPCO also noted that, “for Large customers, the fixed rate was in most cases set significantly higher than the Cost Allocation Model Minimum System with PLCC adjustment” and supported “a significantly lower fixed charge than the current approved fixed charge and a significant decrease in the fixed portion percentage of the bill.”<sup>62</sup>

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<sup>62</sup> AMPCO Comments, May 27, 2016, p. 8.

- The **Association of Power Producers of Ontario** (APPrO) opposed the fixed monthly charge option:

APPrO believes that the fully fixed monthly charge similar to what has been adopted for residential customers is not appropriate for commercial and industrial customers. The demand of commercial and industrial customers is expected to have a larger impact on distribution system needs compared to residential customers. Further, commercial and industrial customers are likely more involved and aware of their electricity cost and demand profiles and should therefore have clarity on their distribution system impacts and offered options to mitigate possible increased distribution system costs. This option conflicts with the objectives outlined in the Discussion Paper and does not support the broad array of DER options available to these customers. Furthermore, this option fails to acknowledge that an important driver of distribution system investment is peak loads, both the individual customer's for connection assets and aggregate distribution system peak for common facilities. Under such an approach customers would face no incremental cost responsibility for increases in peak loads that contributed to additional distribution system investment.<sup>63</sup>

- The **Building Owners and Managers Association** (BOMA) opposed the fully fixed charge option for GS<50 because it is “not supportive of conservation.”<sup>64</sup>
- The **Canadian Federation of Independent Business** (CFIB), whose members would include many in the GS < 10 category, strongly opposed the fully fixed charge option, describing its impacts as “completely unacceptable.”<sup>65</sup> Its concerns included the following:

This type of rate would reduce the benefit that a customer receives from conservation. ... The signal being sent is that the customer's actions have no effect on costs, and that the customer is helpless in terms of controlling the bill.

When this consultation commenced last year, CFIB reviewed the rate applications of three LDCs and estimated the impacts on customers of different sizes, in terms of the distribution bill alone, and the total bill. The fixed rate distribution charge was computed by dividing the total class distribution revenue requirement by the number of customers. ...

In CFIB's view, these bill impacts on small customers are completely unacceptable, when combined with the fact that the customer has no tools at all to manage the bill. Any change in rate design, assuming revenue neutrality, will

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<sup>63</sup> APPrO Comments, May 27, 2016, p. 6.

<sup>64</sup> BOMA Comments, May 27, 2016, p. 6.

<sup>65</sup> CFIB Comments, May 27, 2016, p. 4.

have “winners” and “losers”. It is important that a decision that results in transference of the burden of cost be well based in both the facts of cost causality and principle, in particular so that the “losers” are able to accept as fair the new higher bill, and also to have a reasonable opportunity for action that would turn them into winners. Neither would be true if this design were implemented.<sup>66</sup>

- The **Canadian Solar Industries Association (CanSIA)** was “strongly opposed to a fully fixed charge for general service <50 kW customers.”<sup>67</sup> It reasoned as follows:

In seeking alignment of rate design options with the OEB’s stated objectives, it is noted that fully fixed charges:

- Do not incent/reward conservation at peak (or at anytime).
- Do not enable customers to leverage self-generation technologies using renewable resources or support innovation/enable access to energy options.
- Do not vary by time of day.
- Do not allow customers to take actions to reduce their distribution costs.
- Does not send strong economic signals to the distributor as to the required level of distribution investment its customers will need in the future (or where).

The Board has emphasized the importance of a distribution rate design that focuses on aligning customer and distributor interests. A fully fixed charge favours revenue certainty of the distributor over the customer’s ability to reduce their costs and utilize technologies or energy management strategies that could shrink overall distribution costs in the future. Fully fixed charges also significantly undermine the economics of net metered solar, severely hurting a consumer’s ability to utilize net metering. As an example, Using the distribution volumetric rate for Hydro One urban density general service >50 kW customers of 2.5 ¢/kWh, the transition to a fully fixed rate would represent an annual loss of approximately \$14,000 for a 500 kW net metered customer in Ontario (assumes a yield of 1,161 kWh / kW). This shift would directly negatively impact a consumer’s ability to use solar as well as undercut the proliferating evidence that DSG provides distribution level benefits to all consumers, not just those that have installed solar.

While a fully fixed charge may be the simplest to understand for consumers, simplicity should not be the most important factor for distribution rate design for

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<sup>66</sup> *Ibid.* pp. 3-5.

<sup>67</sup> CanSIA Comments, May 27, 2016, p. 5.

commercial and industrial customers who have a greater willingness/ability to manage their energy consumption for the purposes of responding to price signals.<sup>68</sup>

- The **London Property Management Association (LPMA)** opposed the fully fixed option, stating that it “does not provide a true understanding of the value of distributor assets that are being paid for. Not all of the costs are fixed, but this option implies that this is the case. Peak capacity is given no value whatsoever.”<sup>69</sup>
- The **School Energy Coalition (SEC)** expressed some concerns with the fully fixed option.<sup>70</sup>

Most stakeholders were strongly against fully fixed charges. The concerns they expressed would also support Environmental Defence’s proposal that the proportion of fixed charges be minimized while maintaining consistency with a reasonable interpretation of cost causality.

Only LDC participants supported the fully fixed option.<sup>71</sup> Only LDC participants supported a cost allocation methodology that would allow proportional *increases* in the Monthly Service Charges and allow those charges to be far above the ceiling set by the OEB.<sup>72</sup> Tellingly, LDC rationales included factors such as:

- “revenue stability”<sup>73</sup>
- “stabilize distribution revenues”<sup>74</sup>
- “easy to implement”<sup>75</sup>

The OEB is mandated to protect consumers, not LDCs. In Environmental Defence’s submission, the OEB should focus on its original objective of increasing efficiency, which would be consistent with *ratepayer* comments in this process. Furthermore, LDC’s need not be concerned, because fixed costs are not necessary for cost recovery. Again, the Board has indicated that all the approaches under consideration will be “revenue neutral.” There are many ways to make LDCs whole, while also achieving the original objective of promoting efficiency in the distribution system and thus lowering costs.

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<sup>68</sup> *Ibid.*

<sup>69</sup> LPMA Comments, May 27, 2016, pp. 2-3.

<sup>70</sup> SEC Comments, May 27, 2016, p. 7.

<sup>71</sup> E.g. Cornerstone Hydro Electric Concepts Association Inc Comments, May 27, 2016, p. 4.

<sup>72</sup> Cornerstone Hydro Electric Concepts Association Inc Comments, May 27, 2016, p. 2; Coalition of Large Distributors and Hydro One Networks Inc. Comments, June 3, 2016, p. 24; Electricity Distributors Association Comments, May 27, 2016, p. 5.

<sup>73</sup> Cornerstone Hydro Electric Concepts Association Inc Comments, May 27, 2016, p. 5

<sup>74</sup> Coalition of Large Distributors and Hydro One Networks Inc. Comments, June 3, 2016. P. 24

<sup>75</sup> *Ibid.*

## **Discouraging Energy Efficiency and Distributed Generation**

The latest proposals in the 2019 Report to the Board would discourage energy efficiency and distributed generation because they rely more heavily on fixed charges and fail to incentivize reductions at the coincident peak. The proposed bypass charges also raise concerns relating to distributed generation. This is contrary to the Board’s objectives of supporting customers’ ability to “leverage new technology” and “manage their bill through conservation.”<sup>76</sup>

## **The Staff Report Recommendations are Premature**

As noted above, the 2019 Report to the Board is a reversal from the 2016 Staff Discussion Paper in many critical ways. It includes entirely new proposals such as the capacity reserve charges and bypass charges that have not been adequately canvassed. It is too late in the process to put forward such fundamental changes. Sound rate-making would require a much more robust process to analyze and seek feedback on the design of the rates for over two thirds of the electricity load in the province. It could be another 20 years before the design is reviewed again. It is critical that the approach taken today has been properly reviewed and vetted.

## **Conclusion**

In some ways, the issue is very simple: rates must be redesigned to align the interests of individual ratepayers and ratepayers as a whole. This will result in optimized behavior that will reduce costs for everyone. That means customers should be charged for their contribution to the coincident peak as much as is possible, which would also negate the need for the flawed Capacity Reserve Charge what will unfairly burden customers with distributed generation. It also means that fixed charges should be minimized.

The rate design selected today will likely be with us long into the future. It should be forward looking. It should drive efficiency and optimal customer behavior. It is important to do the work and get it right. Environmental Defence therefore asks the OEB to change course and either order a formal hearing or direct the development of proposals that will increase efficiency, enhance fairness, and lower electricity bills by:

1. Charging customers for their contribution to the distribution coincident peak demand; and
2. Allocating as high a proportion of distribution costs to coincident peak demand charges as is consistent with a reasonable interpretation of cost causality; and
3. Allocating as low a proportion of distribution costs to fixed charges as is consistent with a reasonable interpretation of cost causality.

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<sup>76</sup> EB-2015-0043, OEB, May 28, 2015 Announcement Letter.